



# **Stock-taking and meta-analysis of Science in Society projects throughout FP6 and FP7**

*Case Studies*

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## Gender and Science: Science and Society

## **BALTIC STATES NETWORK "WOMEN IN SCIENCES AND HIGH TECHNOLOGY"- "BASNET"**

**Framework Programme: FP6**  
**Action line/Part: PART C: STEPPING UP THE SCIENCE/SOCIETY DIALOGUE AND WOMEN IN SCIENCE**  
**Activity: 4.3.5 Women and science**  
**Area: 4.3.5.1 Stimulating the policy debate at national and regional level and mobilisation of women scientists**  
**Dimension: Gender and Science**  
**Tool: Specific Support Actions**  
**Project Call For Proposal: FP6-2004-SCIENCE-AND-SOCIETY-10**  
**Status: Closed**  
**Total cost: € 393.600,00**  
**Total EU funding: € 393.600,00**  
**Website: Website no longer available**  
**Period: 15/04/2005 - 14/04/2007**  
**Subjects: Scientific Research - Social Aspects**  
**Project ID and Acronym: ID: 17170, ACRONYM: BASNET**

### **BACKGROUND AND CONTEXT OF THE PROJECT AND STRATEGIC NEEDS**

Gender equality in Sciences and High Technology (HT) was a key issue in the Baltic States (Estonia, Latvia and Lithuania) and Poland. Unfavourable working conditions, cultural stereotypes on the role of women in the family, the lack of institutional support to participation in research projects which indirectly discriminated by gender, were among the existing barriers in the access to scientific career for women. Despite an increase in the number of female students in 'hard' sciences, women still represented the minority in the research workforce occupied in the Baltic States universities as well as in other academic institutions and hardly reached the highest level positions (e.g. professors, PhD). Female under-representation in Sciences and HT was deemed a breach of the general principle of equity and an obstacle to democracy. A comprehensive sociological analysis of factors determining this problem in the Baltic States had never been conducted and there was no common approach to tackle it. Therefore, developing a common Baltic States strategy to support women equal participation in sciences and HT was the priority in the view of boosting the international European competitiveness.

### **SPECIFIC PROJECT OBJECTIVES**

The BASNET project aimed to:

- Establish the **interregional Baltic States Network "Women in Sciences and HT"** among women working groups, professional organizations and corresponding departments of governmental institutions. To monitor changes, information dissemination and good practices in the scientific society, the project pursued to establish the **Baltic States Data Bases** and the **monitoring and information systems** of Women in Sciences and HT.
- Create **common Baltic States strategy** to increase women participation in sciences and HT and to ensure the equal participation of women in different fields of activity as well as in decision making process on different levels of science policy and its management. In detail, the project planned to carry out **a comprehensive sociological analysis** of the reasons determining women underrepresentation in Sciences and HT in the Baltic States and an **analysis of good practices** in fostering gender equality in advanced countries.

The project objectives were relevant for:

- ERA: fostering women participation in Sciences and HT was important to support excellence and diversity which was a key priority in the ERA reform agenda. The project contributed to the ERA objective of achieving gender equality and gender mainstreaming in research by empowering the role of women in sciences and HT;
- Innovation Union: ensuring gender balance in research careers was a target in the construction of the European Research Area framework. The project contributed to this commitment by developing a regional strategy for the promotion of women participation and full equal rights in science and HT.

### **SaS/SiS Programme objectives /Action lines**

BASNET contributed to the FP6 SaS objective of boosting gender equality in research, by stimulating the participation of women in science and technological development and by fostering the integration of the gender dimension throughout European research (SaS Work Programme 2004, Activity 4.3.5). To attain such objective, the BASNET network involved women scientists and Institutions concerned with gender equality in a multidisciplinary and cross-border co-operation. The exchanges and connections with policy makers were intended to raise the awareness of issues related to women in science and to support gender mainstreaming.

### **SAS Action Plan**

BASNET was relevant for the SaS Action Plan objective of producing gender equality in science and related actions (24-28). The project pursues that objective by broadening the knowledge base of the role of women in science, stimulating the multi-stakeholder networking, developing a specific regional strategy and finally, by monitoring the progress made.



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## PROJECT RESULTS AND OUTCOMES

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### Main achievements according to project objectives

BASNET achieved its two main goals: the **establishment of the interregional Baltic States Network "Women in Sciences and HT"** among women working groups, professional organisations and departments of the governmental institutions and the **development of a regional Strategy** for Women in Sciences and HT. The total duration of the project was 24 months and all the tasks for the four main work packages (WPs) were successfully implemented. Main results and outcomes were:

- the **Baltic States Women in Sciences and HT information and monitoring system** including the web-portal on Women in EXS and HT in the Baltic States, the **Baltic States Data Bases** of Women in Sciences and HT and two numbers of the periodic Newsletter "Women in Sciences in the Baltic States", bringing up to date information on the grants, conferences, international collaboration;
- a **comprehensive sociological analysis** determining the reasons of women under representation in Sciences and HT in the Baltic States and the **analysis of good practices** of advanced countries;
- **Links** with existing similar networks including the expert group launched in the context of the EU Women in industrial research (WIR) and the expert group "Women in Science and Technology – the Business perspective". The project achievements went beyond the expected results as also highlighted in the project impacts section.

Progress of each WP including deliverables and associated milestones were regularly monitored during the project lifetime. BASNET continued the work done by the ENWISE<sup>1</sup> experts group in studying the role and place of women in the European scientific research.

Some initial problems, mainly in coordination and management, were caused by misunderstandings and complicated communication among the participants at the beginning of the BASNET project. Those problems were promptly discussed and solved. Comparing the due date of submission with the actual dates (see deliverables and publications section), almost all the project deliverables were provided on time thanks to the effective coordination within the Consortium.

### Main achievements according to Programme objectives

All the activities and outputs produced by the project contributed to the objective of boosting gender equality in research. The comprehensive sociological analysis and data collected through the monitoring system led to a better understanding of women participation in science and main obstacles. In addition, the regional Strategy for women in science elaborated by the project, stimulated the policy debate around future options and steps to implement it at national level.

### Main achievements according to SaS dimensions

BASNET contributed to the evolution of the SAS gender dimension towards gender mainstreaming. By establishing an interregional Baltic States Network and a Strategy for governments and research institutions, the project stressed the need to address the existing barriers for women in the access to scientific careers in the Baltic States. BASNET applied **gender mainstreaming** as major strategy to promote gender equality in the EU. The mission of the Strategy was to epitomize a consistent and comprehensive roadmap for the promotion of gender equality in research, educational and/or policy making institutions in all fields of S&HT. Some key steps included: (re)formulating underlying strategic aims and objectives; (re)synergizing existing and/or introducing innovative political, legal, administrative and personal actions, procedures and processes; applying specific measures (e.g. special training for women in comprehension of science policy and science system, career in science structures). Thus, the BASNET strategy strove for incorporating a **gender equality perspective** at all levels and stages of policy making to better answer women scientists' needs. As underlined by the project coordinator, BASNET prompted a wider understanding of gender equality meaning not just equal participation or access to scientific careers, but also building good working conditions.

## DISSEMINATION AND ENGAGEMENT ACTIVITIES AIMED AT TRANSFERRING THE PROJECT RESULTS TO WIDER COMMUNITIES

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The exchange of experience and the dissemination of information is essential to promote gender equality in research. According to BASNET work plan, the project results and knowledge produced were expected to be exploited internally by the Consortium partners and externally by the wider public. The foreseen dissemination methods included: IT (web portal, e-newsletters); mass media (e.g. press campaigns, TV, articles in newspapers) and workshops/conferences. The partners signed a Consortium Agreement for knowledge management and transfer including a dissemination plan. Between 2006 and 2007, the BASNET dissemination activities targeted scientists, professionals, representatives of similar EC projects and other European organizations concerned. By type, the dissemination means included:

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<sup>1</sup>The ENWISE (Enlarge Women In Science to East) Group was an Expert Group established by the Commission to review the main issues and challenges for women in science and in scientific research in targeted countries and to formulate policy recommendations for the scientific communities and the scientists themselves. The group, active from active from October 2002 until December 2003, was made of senior women scientists from different disciplines representing academies of sciences, universities, research institutes and businesses.

- **IT: a dynamic WEB site** (<http://www.basnet-fp6.eu/>) created to foster public awareness of the problem and to communicate the project's results as required by the Project Management and Dissemination Plan and new one (<http://www.basnetfp6.eu/>); BASNET Web portal; Information Bulletin e-news letters "Women in S&HT in the Baltic States"; E-mail bulletins; Database on women in S&HT for professional organizations;
- **Mass Media and Publications:** the mail dissemination outputs are the BASNET Booklet realized on March 2006 and the book entitled "Women in Sciences and High Technology in the Baltic States. Problems and Solutions" (December 2007) available on the project website. A press conference have been hold on November 2011 and the SaS reporting Questionnaire also mentions additional publications related to the project (total 6 articles published in journals and 2 press releases) and 7 items covering the project in the printed press, 4 on radio and 3 on television.
- **Workshops/Conferences:** an **Introductory Conference** (6-7 of March 2006, Vilnius) attended by 46 participants from six European countries, which helped build up a co-operation climate; BASNET SCI&SOC workshop "Learning from success towards a new call" (2006); BASNET Tartu Workshop on the study and analysis of sociological data in Tallinn (2006); BASNET workshop on strategy in Latvia (2007); **BASNET Closing Conference** (22-23 of October 2007, Vilnius) where the regional BASNET strategy "Women in sciences and HT in the Baltic States" was discussed by partners.

Consequently, all planned dissemination activities were achieved.

Additional activities allowing to create links with existing similar networks were planned to ensure women full participation in industrial research. Main international activities performed by BASNET participants were:

- Participation in events related to similar projects: EU-WIR initiative<sup>2</sup> (Conference "Re-searching Women in Science and Technology" Vienna, 2006), FemStart<sup>3</sup> (2008 conference in Riga); ESOF 2006<sup>4</sup>.
- Presentations held in events organised by International Scientific Organizations: IUPAP<sup>5</sup> (3rd International Conference on Women in Physics in Seoul, Korea); INWES<sup>6</sup> (2007 conference in Wroclaw) and APS<sup>7</sup> ("Science nights" in IAPS UL, 2007).
- Participation in EPWS (*European Platform of Women Scientist*) activities as full conditional member (EPWS Conference "Women Shaping Science" and General Assembly in June 2008).

The dissemination activities included not only information about the project progress and achievements but also results of sociological study as well as documents necessary for creation BASNET and National Strategies on the women in Sciences and HT. The activities performed allowed BASNET participants:

- To raise the awareness of the "women in science" problem in the wider public (the audience size reached was 3,5Million);
- To link with similar projects, thus providing new perspectives to the EU science gender policy.

The project expected to fulfil broader dissemination of the results via workshops and conferences. As expressed by the project coordinator, the magnitude of the dissemination activities suffered from the lack of a sound financial basis. For instance, the Polish Physical Society did not arrange any conference despite the efforts made by the coordinator. Universities in the Baltic Region do not succeed in attracting investments from the private sector, thus, a proper EC funding is essential to host conferences and release publications.

## PROJECT IMPACTS

The BASNET project was expected to **improve the women situation** in the Baltic States through a regional strategy for promoting gender equality at all levels of S&HT and democracy in Science and HT and thus, **to facilitate the opening of national policies** to international approaches thanks to the development of interregional relations. As a consequence, the project activities would have contributed to the shaping of a European approach for the promotion of women in science. Looking at the project participants, the Vilnius University was one of the most central organisations

<sup>2</sup> European Commission's Research DG started the new WIR - Women in industrial research - initiative at the end of 2001 as called for in action n° 26 of the Science and Society Action Plan, to develop effective strategies for women participation in industrial research.

<sup>3</sup> FemStart (Fostering the public debate on university support of female scientists to start a business) is an EU initiative launched in 2006 to increase entrepreneurship among female scientists.

<sup>4</sup> ESOF (EuroScience Open Forum) is biennial, pan-European, general science conference dedicated to scientific research and innovation.

<sup>5</sup> International Union of Pure and Applied Physics (IUPAP) Working Group 5 (WG5), established a Women in Physics (WiP) Working Group in 1999 to to improve the situation for women in physics.

<sup>6</sup> The International Network of Women Engineers and Scientists (INWES) is a global network of organizations of women in Science, Technology, Engineering and Mathematics (STEM), reaching over 60 countries worldwide.

<sup>7</sup> American Physical Society (APS) is the world's largest organization of physicists working to advance and diffuse the knowledge of physics.

in the overall FP network (top 1%) while other 4 partners had also a high degree of betweenness centrality. On average, half of the consortium participated in other projects under FP 6 "structuring the ERA".

Beyond expectations, the BASNET project **actual impacts** can be classified into:

- **Scientific impact:** As reported in the last table of this document, 3 scientific publications related to the project contents have been released going beyond the average scientific outputs of SaS projects (0,5 publication per project). In addition, the project was referred to in other 4 publications suggesting a wider positive effect of the project from a scientific perspective.
- **Institutional and organisational impact:** Following the creation of the Baltic States strategy "Women in Sciences and High Technology", a new Association called the "BASNET Forumas" was established in 2009 to pursue the project tasks. The BASNET Forumas aims to monitor/support the implementation of the BASNET Women in Sciences strategy in the Baltic States region, as well as, to collect and disseminate good practices gained in Eastern Europe. Being a Board of Administration member of the *European Platform of Women Scientist (EPWS)*, the BASNET Forumas has established collaborations with other EPWS members to share experiences and to increase the research capacities (for instance, joint activities with the Portuguese association AMONET). During the last two years BASNET Forumas participated as a partner in 3 international projects (i.e. SAPGERIC, GEIRICA, genderSTE) and the Lithuanian (LT) national project LYMOS.
- **Policy impact:** To improve the situation of women in science in the region it was necessary to improve the *science policy governance model* taking into account national research and higher education systems, policies tackling gender differences and good practices in gender mainstreaming developed from other countries. The network established between scientists and policy makers defined a *framework* to better understand the needs of women scientists and to overcome the institutional barriers. Looking at the Baltic States science policy, the **Lithuanian National Strategy defined by the project was accepted by the Government and in addition BASNET results were discussed at governmental level by national groups in other Baltic States**. As underlined by the project coordinator, the strategy provided the background for structural changes and policy debates. Actually, the Baltic Assembly initiated a Resolution on gender equality gaining the support of parliamentarians from Estonia and Latvia but final adoption is triggered by political convenience. The involvement of the BASNET Forumas in EPWS has provided the possibility to compare national policies and to adopt an EU perspective to the problem. This membership also allows women scientists from the Baltic States region to monitor/influence the development of the EU gender in science policy.
- **Social media impacts:** There has been no relevant social impact in terms of social media listening buzz results. That can be partially explained by the state of the technology at the time of project implementation.

## PATH-BREAKING ADVANCEMENTS

The **involvement of decision makers** in networks supporting gender equality is quite rare, more frequently participation is limited to academia and research organizations. The establishment of a network involving scientists and policy makers on issues related to women in science can be considered a crucial innovation especially in the Baltic States. The improved connections between researchers and decision-makers facilitated the effective uptake of study results into policy and the implementation of the Strategy defined through the project within the governments' agenda, as described in the previous paragraph.

Moreover, the implementation of the BASNET project relied on frequent contacts with other expert groups, organisations and similar networks concerned with gender equality. The establishment of links and synergies with many stakeholders was deemed essential to develop effective strategies for promoting women participation in science and HT. The consensus generated on the relevance of the network led to the **establishment of the Association "BASNET Forumas"** to monitor the implementation of the BASNET strategy in the Baltic States region and dissemination good practices in the Eastern European countries beyond the end of the project. Today, **BASNET Forumas association is still active** and has participated as project partner into national projects in the Baltic Region (e.g. Lithuanian LYMOS project). To a wider extent, full membership in the EPWS since 2009, has also allowed BASNET Forumas Members to play a key role in the definition of the European and national research policy to achieve equal and full participation of women in science.

## BEST PRACTICES

As already remarked (see Dissemination section), BASNET participants have been involved in international events organised by other projects (e.g. WIR, FemStart, ESOF 2006) and by International Organisations (e.g. IUPAP, INWES), also beyond the end of the project. That allowed a wide exchange of information and best practices and it also suggests that many linkages and synergies have been structured outside the SaS Programme.

As for links to projects within the programme, the BASNET Forumas participated to the FP7 SIS project SAPGERIC in partnership with Norwegian Countries for promoting gender equality in research institutions and enhancing the effective dialogue and knowledge sharing between academia, research institutions, funding agencies, researchers, policy makers and society.

## EU ADDED VALUE OF THE PROJECT

The EU added value of the BASNET project seems to be relevant. The project allowed to overcome the institutional and financial barriers to the elaboration of comprehensive national policy on gender equality in the Baltic States. The lack of funds for research, outdated techniques used by Eastern European Countries in research policies (e.g. Latvia) and

unstable qualification requirements for scientists were among the factors hindering the elaboration of effective national actions for participation in decision-making bodies in Baltic States. Those elements suggest that without EU funding the considered Baltic States were unlikely to be able to elaborate such a strategy to support women participation and thus, to attain the achieved results.

In general, the project coordinator underlined that the added value of participating to EU funded projects for scientists is the possibility to get a better understanding of the surrounding context and of the potential use of their knowledge in favour of the society. By participating to BASNET, the coordinator improved the understanding of societal issues and expanded the personal network acquiring also good coordination skills.

## PARTICIPANTS AND RESEARCH TEAM

### Participants

Number of participants: 10

Number of countries involved: 5

	Type	Country	Role	Previous participations to FP
UNIVERSITAS VILNENSIS	HES	LT	Coordinator	1
UNIVERSITATEA DIN BUCURESTI	HES	RO	Participant	5
POLSKIE TOWARZYSTWO FIZYCZNE	OTH	PL	Participant	1
LATVIJAS UNIVERSITATE	HES	LV	Participant	1
UNIVERSITY OF TARTU	HES	EE	Participant	1
VILNIAUS UNIVERSITETO TEORINES FIZIKOS IR ASTRONOMIJOS INSTITUTAS	REC	LT	Participant	1
LIETUVOS RESPUBLIKOS SVIETIMO IR MOKSLO MINISTERIJA	OTH	LT	Participant	1
THE MINISTRY OF EDUCATION AND SCIENCE OF THE REPUBLIC OF LATVIA	OTH	LV	Participant	1
HARIDUS-JA TEADUS MINISTEERIUM	OTH	EE	Participant	1
KAUNAS UNIVERSITY OF TECHNOLOGY	HES	LT	Participant	9

### Team Composition

Team Size: members\*

GENDER				
Female		Male		Unknown
81%		4%		15%
SENIORITY				
Average		Junior		Senior
15%		4%		81%
PhD				
No			Yes	
19%			81%	
BACKGROUND				
Applied Sciences	Health Sciences	Humanities & Social Sciences	Natural Sciences	Unknown
3.85%	8%	27%	62%	0

\*The data are based on the analysis of the provided project's Description of Work.

## DELIVERABLES AND PUBLICATIONS

DELIVERABLE NO.	DELIVERABLE NAME	DUE DATE OF DELIVERY (month)	ACTUAL SUBMISSION DATE: (month)
D1	Project management plan	3	3
D2	Shooting report on the introductory conference	3	3

DELIVERABLE NO.	DELIVERABLE NAME	DUE DATE OF DELIVERY (month)	ACTUAL SUBMISSION DATE: (month)
D3	Mid-term assessment meeting report	13	16
D4	Final report	24	26
D5	Information in Mass Media	14-24	15-24
D6	Shooting report on workshop devoted to sociological study	12	12
D7	Final report on study of barriers women scientists face in their career	14	14
D8	Shooting report on workshop devoted to the strategy	18	19
D9	Shooting report on conference "Regional Strategy "Women in sciences and HT in the Baltic States"	23	23
D10	Final report on Strategy "Women in sciences and HT in the Baltic States"	23	23
D11	Development of regional data basis and monitoring system "Women in Sciences and HT in the Baltic States"	24	24
D12	Establishment of the Dynamic Web-site	11	11
D13	Establishment of the informational portal "Women in Sciences and HT in the Baltic States"	24	27
D14	Establishment of Newsletter "Women in Sciences and HT in the Baltic States"	13	15

Publications no.	PUBLICATION	LINK (when available)
1.	Satkovskiene, D. (2008). "Marshak Lectureship Talk: Women in Physics in the Baltic States Region: Problems and Solutions"	<a href="http://scitation.aip.org/docserver/fulltext/aip/proceeding/aipcp/flat/10.1063/1.3137741/1.3137741.pdf?Expires=1457351149&amp;id=id&amp;accname=guest&amp;checksum=02E8FAFC5F569854D6D8DD095F9B05D0">Http://scitation.aip.org/docserver/fulltext/aip/proceeding/aipcp/flat/10.1063/1.3137741/1.3137741.pdf?Expires=1457351149&amp;id=id&amp;accname=guest&amp;checksum=02E8FAFC5F569854D6D8DD095F9B05D0</a>
2.	Talves K. (2016). "Discursive self-positioning strategies of Estonian female scientists in terms of academic career and excellence"	<a href="http://www.sciencedirect.com/science/article/pii/S0277539515000953">Http://www.sciencedirect.com/science/article/pii/S0277539515000953</a>
3.	Vasiljeviene n., pucetaite, r. (2009). Establishing integrity to eliminate women discrimination in science: implications from empirical research in lithuania. Economics & management, 14	<a href="http://www.inzeko.ktu.lt/index.php/Ekv/article/view/9829/4758">Http://www.inzeko.ktu.lt/index.php/Ekv/article/view/9829/4758</a>

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<http://www.basnetforumas.eu/>  
[https://ec.europa.eu/research/science-society/women/wir/news\\_en.html](https://ec.europa.eu/research/science-society/women/wir/news_en.html)

## **WOMEN IN CONSTRUCTION SCIENTIFIC RESEARCH "WOMEN-CORE"**

**Framework Programme: FP6**  
**Action line/Part: PART C: STEPPING UP THE SCIENCE/SOCIETY DIALOGUE AND WOMEN IN SCIENCE**  
**Activity: 4.3.5 Women and science**  
**Area: 4.3.5.2 Developing a better understanding of the gender issue in scientific research**  
**Dimension: Gender and science**  
**Tool: Specific Targeted Research Projects**  
**Project Call For Proposal: FP6-2004-SCIENCE-AND-SOCIETY-10**  
**Status: closed**  
**Total cost: € 2.042.851,60**  
**Total EU funding: € 1.336.056,80**  
**Website: Website no longer available**  
**Period: 01/04/2006 - 30/09/2008**  
**Subjects: -**  
**Project ID and Acronym: ID: 17568, ACRONYM: WOMEN-CORE**

### **BACKGROUND AND CONTEXT OF THE PROJECT AND STRATEGIC NEEDS**

Between 2003 and 2005, the overall expenditure on R&D<sup>8</sup> had a modest decline in the EU28 but it was systematically lower than the average spending in Japan and in the US<sup>9</sup>. The industrial sector, which played a leading role in R&D, suffered from an under-representation of women in scientific research, especially in senior positions. Furthermore, there were few data and studies about women in industrial research compared to the academic sector. Thus, there was a clear need to gather reliable information in order to encourage women participation in scientific careers and research through: new gender impact assessment studies, reports and statistics. WOMEN-CORE tackled the problem of women under-representation by improving the knowledge and awareness of their role in construction research.<sup>10</sup> The analysis focussed on the construction sector due to its importance in the EU in terms of contribution to economic growth, employment and production of investment goods.

### **SPECIFIC PROJECT OBJECTIVES**

WOMEN-CORE aimed to strengthen the participation of women scientists in construction research in Europe by increasing their knowledge of and influence in the field, identifying the most attractive research areas and main gender-specific needs of R&D in the construction sector. In detail, the project aimed to:

- Map and evaluate the current situation of Women scientists in construction research through already existing quantitative and qualitative data;
- Set up and exploit new sources of information (e.g. surveys, interviews, case studies) to improve the knowledge base on the situation of women in construction research;
- To explore career success factors and new opportunities for empowering women in construction research.
- To raise stakeholders' awareness of the projects, by widely disseminating and exploiting the results achieved.

The specific project objectives were relevant for:

- **ERA:** the project contributed to the ERA priority "Gender equality and gender mainstreaming in research" by mapping the European Organisations and Women scientists in Construction Research and assessing their impact in the field in Europe, and by identifying gender-specific needs related to R&D in the construction sector. WOMEN-CORE also contributed to promote structural links within the ERA for a more dynamic interaction between scientists, policy makers and society at large and planned to establish a European network of Women scientists in Construction Research (ENCORE) to further empower them.
- **Innovation Union:** by tackling the problem of women under-representation in construction research, WOMEN-CORE contributed to avoid the loss of talent (and possibly excellence) within the ERA. Therefore, the project contributed to the IU strategic objective "strengthening innovation and competitiveness in Europe" by enhancing women researchers' role and supporting the achievement of top level positions.

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<sup>8</sup> Expressed as Gross domestic expenditure on R&D (GERD) ratio to GPD in Eurostat statistics for the period 2003–13.

<sup>9</sup> The average GERD (% of GDP) for the period 2003-05 was 1.77% for the EU-28, 3.19% in Japan and 2.51% in US.

<sup>10</sup> According to the European Construction Technology Platform (ECTP), Construction research referred to seven focus areas: cities and buildings; underground construction; networks systems; cultural heritage; quality of life; materials; and processes, and information and communication technologies. The core academic disciplines related to construction research are: architecture; urban planning; mechanics including fluid mechanics and dynamics; building structures; water management and structures; transport organisation and structures; environmental engineering; construction and economic management; building physics; construction technology and organisation; information technologies; heating, cooling, ventilation, electricity (HVAC) and networks; and geotechnics, underground structures.



### SaS/SiS Programme objectives/Activity Lines

WOMEN-CORE was in line with the programme objective to boost gender equality in research through stimulating the participation of women in science and technology and through fostering the integration of the gender dimension throughout European research (Activity 4.3.5).<sup>11</sup> In detail, the project gathered information concerning the situation of women in construction research using new sources with a twofold objective: prompting a better understanding of their conditions within the scientific community and increasing their influence in the construction research field.

### SAS Action Plan

The project focused on women research scientists working in industry as called for in Action 26 of the SaS Action Plan. By gathering information and data, the project studied the role and place of women researchers in construction research in order to achieve the SaS Action plan final aim to produce gender equality in science.

## PROJECT RESULTS AND OUTCOMES

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### Main achievements according to project objectives

WOMEN-CORE achieved all the results foreseen in the description of work by combining different methods and techniques of data collection (statistical analysis, fieldwork, surveys, interviews and case studies). The main achievements were:

- **Mapping of the construction field:** around 1,500 European research institutions devoted to construction were identified and classified into four main categories: Higher education institutions; research centres; construction companies (SMEs and LEs) ; networks and government institutions (ministries)
- **Collection and analysis of qualitative/quantitative data** on women in construction research: a qualitative report on women in research, based on an in-depth bibliographical review, was produced by CEWS; policies/measures to attract, retain and promote women researchers were analysed; available **quantitative data** allowed to analyse women's presence in construction research and female construction researchers in industry and academia and to find out main characteristics in professional development, influencing factors and most relevant trends;
- **Assessment on women participation in construction research:** Women participation in FP6 EU-funded projects on construction research, patents in the construction sector, publications and citations in construction scientific journals were assessed during the project lifetime They confirmed the problem of women under-representation;
- **Exploitation of new sources of information:** survey to construction research institutions; interviews; survey to researchers; biographical case studies collecting data on women in construction research; Institutional case studies for collecting data on approaches to gender issues in construction research, both in the academic and industrial sector;
- **Analysis of trends and driving forces of gender (in)equality:** National **trends** and differences in female participation in construction research were analysed. Gender inequalities were found in level of stability, pay, promotion, career opportunities probably related to career breaks due to family responsibilities, lack of self-confidence, traditional division of labour within the researchers' household;
- **Development of indicators:** gender equality indicators were created to measure main gender-mainstreaming objectives and areas where new fields for potential gender-specific indicators identified;
- **Recommendations for women in Construction Research:** recommendations were addressed to policy-makers, Institutions and women to improve the knowledge base of women in construction research and to support equal working;
- **Assessment of the possibility of a mentoring programme** (including a database): guidelines for mentoring programmes in construction research were proposed looking at long-term sustainability, institutions' involvement and specific SMEs' implementation needs. Possible sources of mentors were identified within a database of possible mentors (353 institutions and 483 individuals);
- The **project web site** was launched in December 2006 and continuously updated. It contained a comprehensive project presentation, a description of partners and activities related to gender issues, links to relevant gender, construction issues, relevant gender related events and relevant news and public reports. The web site served for sharing documentation and content during the development and delivery of actions and other materials;
- The launch and establishment of the **ENCORE Network** (Equality Network for Construction Researchers in Europe) in December 2009 as result of the project.

### Main achievements according to Programme objectives

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<sup>11</sup> FP6 SaS Work Programme (2004).

WOMEN-CORE achieved the objectives set by the programme through innovative pilot studies and surveys, designed to:

- Complement and enhance the existing knowledge: the project assessed the state of the art of qualitative/quantitative data and existing statistical sources of women in industrial and construction research. It also assessed women participation in patents, projects and publications and piloted new areas of data collection and analysis.
- Open up new perspectives for further in-depth work in this field: through new gender indicators, surveys to institutions and individuals, institutional and biographical case studies, assessment of networking possibilities and trends of gender equality, the project provided a wide overview of the construction research.
- Understand key issues such as scientific careers, vertical segregation, pay gap, school to work transitions of S&T graduates recruitment: the methodological approach adopted by WOMEN-CORE confirmed the existence of gender inequalities at level of stability, pay, promotion opportunities and expertise, with some of them probably related to career breaks due to family responsibilities and lack self-confidence.

Therefore, the project achieved the expected impact of improving the understanding of women participation in the field.

#### **Main achievements according to SaS dimensions**

WOMEN-CORE contributed to the women and science SaS dimension, whose primary objective was to eliminate barriers to the increase of women participation and integration in science. First of all, the project sought to strengthen women scientists' participation in construction research by gathering relevant knowledge and performing networking activities. In line with the evolution of the dimension, the project made recommendations for empowering women in construction research in order to promote the gender mainstreaming approach in public R&D policies, relevant for the Construction sector. Indeed, all the policies including research were expected to contribute to the promotion of the gender equality approach.

#### **DISSEMINATION AND ENGAGEMENT ACTIVITIES AIMED AT TRANSFERRING THE PROJECT RESULTS TO WIDER COMMUNITIES**

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To disseminate WOMEN-CORE results and to make organisations operating in the construction sector aware of the project, a dissemination plan and two awareness-raising campaigns were foreseen.

Dissemination was carried out as a permanent task throughout the project duration. A dissemination plan was designed in 2007 and 2 awareness raising campaigns were carried out. The main dissemination means included:

- The **WOMEN-CORE project website**: launched in December 2006 (active until 2009) to provide information on the project, the partners, the gender-related activities and some useful links. All project partners received regular updates on the content ([www.women-core.org](http://www.women-core.org));
- **National seminars**: Two national seminars were planned in each of the participating countries (Czech Republic, Denmark, United Kingdom, Germany, Spain) reaching a total of 10 seminars. The first round of events was held in 2007 for awareness raising purposes, while the second round was held in 2008, with the objective of disseminating the project results;
- **Project Meetings**: 11 project team meetings -Scientific and Technical Committee meetings, Steering Committee meetings- and 2 Advisory Group meetings (Barcelona 2006; Bilbao 2008) were organised to present the project methodology and development and to facilitate the dissemination of its results. Key meetings involved, when possible and relevant, interested parties other than participants- for instance, the Steering Committee and Scientific and Technical Committee meeting in Bonn (the 16<sup>th</sup> and 17<sup>th</sup> November 2006) with the participation of PROMETEA project representatives;
- **National Press and Media Coverage**: Press and media reports were issued to increase the project visibility and awareness. Media Coverage was closely linked to the activities undertaken during the Awareness and dissemination workshops;
- **Participation to gender relevant national and international events**: the project partners participated to relevant national and EU events to present WOMEN-CORE papers, project posters related to women in construction research sector and to distribute brochures. Among the main conferences held in 2006: the 6<sup>th</sup> European Gender Research Conference in Łódź; the VI Congreso Iberoamericano De Ciencia, Tecnología Y Género in Zaragoza; the ECTP Conference in Versailles; the event "Science Policies Meet Reality" in Prague. In 2008, the project participants contributed to some relevant events such as: the "women, science and society" Seminar in Santander; the International Conference of WOMEN-CORE "Empowering women in construction research" held in Barcelona;
- **Direct Mailing**: a standard mailing leaflet and publicity materials were also produced;
- **Publications**: Executive summaries on project results were published in the project web site once approved by the European Commission;
- The **WOMEN-CORE International Conference**: The International Conference "Empowering Women in Construction Research" was held on 3<sup>rd</sup> December 2008 in Barcelona (Spain) to present the project results and to launch the ENCORE network. The conference attracted 50 participants, coming from project partner countries (Czech Republic, Denmark, Germany and the United Kingdom) and from South Africa. The active participation and debates resulted in the Recommendations proposed by the end of the project.



Overall, the dissemination and the awareness raising activities were carried out under the foreseen schedule and the objectives set in the description of work were all achieved. Namely:

- Awareness-Making stakeholders aware of the project: A **first awareness raising campaign** was launched in September 2006 and addressed to different stakeholders groups: academia, research organisations, industry, networks and public administration. One year later, the **Second awareness raising campaign** consisted of five types of actions (direct contacts; web site; press releases; s, national awareness seminars; participation to other relevant events) and included the distribution of project brochures and posters.
- Dissemination -Disseminating project results: the International Conference and the national seminars in each of the participating countries served to provide evidence of the final project results and knowledge.
- Networking - creating a European Network of Women Researchers in construction sector: the ENCORE Network (Equality Network for COnstruction Researchers in Europe) was announced at the International Conference (2008) and established for future activities after the project. **It provided women working in the field of construction with the opportunity to meet and share experiences.**
- Exploitation- Analysing the possible exploitation of the project results: an exploitation strategy and a plan were defined to exploit the knowledge generated by the project from the viewpoint of potential investors and individual partners.

WOMEN-CORE led a wide variety of dissemination actions meant as complementary strategies to spread the project results to the widest public. The project dissemination activities targeted different stakeholders from the construction sector such as: Universities, Research Centres, industry, networks and governmental organisations. Thanks to the WOMEN-CORE website, the project dissemination material was periodically updated and reached a wide audience.

### PROJECT IMPACTS

Overall, the potential impact of the project concerned the equal participation of women in industrial research, which strictly aligned with the Women in Industrial Research (WIR) initiative.

Looking at the project participants, half of the consortium was in the top 5% of the most central organisations in the overall FP network and 2 organisations were even in the top 1% (*betweenness centrality*). The consortium did however not perform so well in terms of scientific attractiveness, as only the Loughborough University appeared in the Leiden ranking for the quality of the publications released (325<sup>th</sup> position). Nevertheless, the high centrality allows to assume high potential impacts for the project.

With reference to the project activities, the **actual impacts** can be clustered into:

- **Scientific impact:** there was only one publication related to the project but it had a high echo, with 43 citations;
- **Social Media Impact:** there was no relevant social impact in terms of social media listening buzz results. This can be partially explained by limited level of development of technologies and of social media at the time of project implementation;
- **Institutional and organisational impact:** networking was considered a way to empower individuals, because it strengthened their professional support system and helped them make contact with other professionals who may positively influence their careers. The exploration of new possibilities, opportunities, constraints and the most suitable conditions for developing networks in construction research led to the establishment of the ENCORE Network (Equality Network for COnstruction Researchers in Europe) in December 2009. The aim of the network was to expand the role and contribution of women in industrial and academic construction research.
- **Policy impact:** WOMEN-CORE opened new opportunities for women employment and addressed the gender factor in a male-dominated sector. The knowledge gained thorough the new sources of information (e.g. surveys, case studies, analysis) allowed to identify the main characteristics of the scientific career in construction research and the most relevant trends that shape the professional development researchers. WOMEN-CORE had an impact on the RTD in the construction sector, a strategic field for Europe research activity, by emphasising the gender issues of construction research.

### PATH-BREAKING ADVANCEMENTS

The WOMEN-CORE project developed a specific set of indicators that enabled to analyse statistical data on scientists and engineers in the construction sector and to monitor and assessing the development of gender equality in construction research. The indicators were also intended to guide policymakers, organisations/research leaders and individuals, in deciding strategies for gender mainstreaming and career management.

### BEST PRACTICES

None.

### EU ADDED VALUE OF THE PROJECT

As announced in the DoW, the problem of women under-representation in construction research could be addressed only at European level since the expertise and EU-wide data required were not available at national level. The project provided added value by:

- Reinforcing the networking capacity of women scientists, especially through the ENCORE network (Equality Network for Construction Researchers in Europe) which was launched in 2009. It supported the exchange of knowledge and experience among women researchers and related organisations in construction research. A preliminary assessment of Networking Experiences in Construction Research showed that there was no existing network aimed specifically at women working in construction research before the project, although there were women's scientific networks and a few research networks across Europe that women construction researchers could potentially join.
- Ensuring a wide dissemination of project results and up-to-date knowledge thanks to the memberships of project partners to other networks. For instance, LABEIN was a member of Network for EC DGXII on Environmentally Friendly Construction Technologies and E-CORE<sup>12</sup> network and together with the University of Loughborough, it contributed to the European Construction Technology Platform (ECTP);
- Making new data sources available for policy making at EU and national level.

## PARTICIPANTS AND RESEARCH TEAM

### Participants

Number of participants: 6

Number of countries involved: 5

	Type	Country	Role	Previous participations to FP
<i>Fundación LABEIN</i>	REC	ES	Coordinator	32
<i>Fundació Centre d'Iniciatives I Recerques Europees a la Mediterrània'-CIREM</i>	REC	ES	Participant	1
<i>Arbeitsgemeinschaft Sozialwissenschaftlicher Institute</i>	OTH	DE	Participant	2
<i>Instituttet For Fremtidsforskning</i>	OTH	DK	Participant	1
<i>Ceske Vysoke Uceni Technicke V Praze</i>	HES	CZ	Participant	1
<i>Loughborough University</i>	HES	GB	Participant	1

### Team Composition

Team Size: members\*

GENDER				
Female		Male		Unknown
81%		19%		0%
SENIORITY				
Average		Junior		Senior
13%		6%		81%
PhD				
No			Yes	
31%			69%	
BACKGROUND				
Applied Sciences	Health Sciences	Humanities & Social Sciences	Natural Sciences	Unknown
0%	6%	56%	13%	0%

\*The data are based on the analysis of the provided project's Description of Work.

<sup>12</sup> The European construction research network(E-CORE) established in 2001 served as reference group to analyse the latest technological advances and to develop future RTD strategies for the construction sector.

## DELIVERABLES AND PUBLICATIONS

DELIVERABLE NO.	DELIVERABLE NAME	DUE DATE OF DELIVERY (month)	ACTUAL SUBMISSION DATE: (month)
D1	First awareness rising campaign	Month 3	Month 3
D2	Web site	Month 3	Month 8
D3	Gender Issues promotion plan	Month 3	Month 3
D4	Assessment of the state of the art of qualitative data on Women in industrial and construction research	Month 4	Month 5
D5	Assessment of the state of the art (availability and accuracy) of quantitative data on Women in construction research	Month 4	Month 5
D6	Mapping construction research	Month 5	Month 5
D7	Conceptual methodological approach	Month 6	Month 8
D8	Concluding report for Work Package 1	Month 6	Month 8
D9	Results of the survey to institutions	Month 12	Month 16
D10	Dissemination plan	Month 12	Month 12
D11	First 12 monthly Progress Report	Month 12	Month 12
D12	First Cost Statement	Month 12	Month 12
D13	Potential supply of high-qualified Women in construction research	Month 14	Month 15
D14	Mid-term assessment	Month 15	Month 15
D15	Assessment of the Women participation in construction research EU funded projects	Month 16	Month 16
D16	Assessment of the Women participation in patents in the construction sector research	Month 16	Month 17
D17	Assessment of the role of Women participation in publication and citation in the construction sector research	Month 16	Month 16
D18	Concluding report for Work Package 2	Month 16	Month 17
D19	Results of the survey to individuals	Month 16	Month 21
D20	Institutional case studies	Month 16	(+14 month)
D21	Second awareness rising campaign	Month 18	Month 18
D22	Bibliographical case studies	Month 22	Month 26
D23	Assessment of new patterns of Women as patents originators	Month 23	Month 28
D24	Assessment of the impact of gender on success in peer review acceptance	Month 23	Month 23
D25	Assessment of mentoring programmes in construction research	Month 24	Month 23
D26	Assessment of networking experiences in construction research	Month 24	Month 23
D27	Concluding report for Work Packages 3	Month 24	Month 31
D28	Second 12 monthly Progress Report	Month 24	Month 24
D29	Second Cost Statement	Month 24	Month 24
D30	Driving forces and trends of gender (in)equality in construction research	Month 26	Month 26
D31	New gender indicators in construction research	Month 26	Month 26
D32	Assessment of the possibilities of establishing a mentoring programme in construction research	Month 28	Month 28
D33	Database of possible mentors for construction research	Month 28	Month 28
D34	Assessment of networking possibilities in construction research	Month 28	Month 28
D35	Recommendations for empowering Women in construction research	Month 28	Month 28
D36	Concluding report for Work Package 4	Month 28	Month 28
D37	Exploitation plan	Month 30	Month 30
D38	International conference	Month 30	Month 30
D39	European Network of Women Scientist in Construction	Month 30	Month 30
D40	Final Report	Month 30	Month 30

## PUBLICATIONS

Menches, C. and Abraham, D. (2007). Women in Construction—Tapping the Untapped Resource to Meet Future Demands available at: [http://ascelibrary.org/doi/abs/10.1061/\(ASCE\)0733-9364\(2007\)133:9\(701\)](http://ascelibrary.org/doi/abs/10.1061/(ASCE)0733-9364(2007)133:9(701)).

## **MAIN SOURCES**

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European Commission (2006). Women and Science – Mobilising Women to enrich European research. Communication of the Commission adopted on 17 February 1999. COM(1999)76 final.

European Commission (2006a) She Figures 2006 – Women and Science Statistics and Indicators, Luxembourg: Office for Official Publications of the European Commission.

WOMEN-CORE Deliverable 10- Dissemination Plan.

WOMEN-CORE Deliverable 31- New Gender Indicators in Construction Research.

WOMEN-CORE Deliverable 33- Database of Possible Mentors for Construction Research.

WOMEN-CORE Deliverable 34- Assessment Of Networking Possibilities In Construction Research.

WOMEN-CORE Deliverable 38- International Conference Empowering Women in Construction Research.

WOMEN-CORE Final Management Report (2009).

WOMEN-CORE Periodic Management Report (2009).

## **GENDER MAINSTREAMING EUROPEAN TRANSPORT RESEARCH AND POLICIES. BUILDING THE KNOWLEDGE BASIS AND MAPPING GOOD PRACTICES "TRANSGEN"**

**Framework Programme: FP 6**

**Action line/Part: PART C: STEPPING UP THE SCIENCE/SOCIETY DIALOGUE AND WOMEN IN SCIENCE**

**Activity: 4.3.5 Women and science**

**Area:**

**Dimension: GENDER AND SCIENCE**

**Tool: Specific Support Actions**

**Project Call For Proposal: FP6-2005-SCIENCE-AND-SOCIETY-17**

**Status:**

**Total cost: € 160 211.00**

**Total EU funding: € 160 211.00**

**Website: <http://koensforskning.soc.ku.dk/projekter/transgen/>**

**Period: 01/10/2006 - 30/11/2007**

**Subjects:**

**Project ID and Acronym: ID: 36774, Acronym: TRANSGEN**

### **BACKGROUND AND CONTEXT OF THE PROJECT AND STRATEGIC NEEDS**

The TRANSGEN project intended to produce a distinct knowledge base for future research and innovation action in the transport thematic area in FP6 and beyond by linking gender mainstreaming with transport research and innovation. The aim of the TRANSGEN project was to implement gender and gender equality issues into the field of transport as part of a European research and innovation policy strategy. A major target was to make the European transport-related Research and Innovation Area more sustainable and compliant with the overall European Union objective of promoting gender and equality between men and women in all its actions. Gender mainstreaming in the transport sector and transport-related European Research and Innovation Area implies a focus on the following questions:

- How can gender mainstreaming objectives be ensured related to planning, research design and decision-making processes in transport research and innovation?
- How can gender mainstreaming and gender and equality issues be linked to current objectives of greening, integrating and "smartening" the European transport system?
- How does gendered access to transport infrastructure and a gendered use of transport modes affect the European goal of enhancing employment and competitiveness?

The TRANSGEN project was particularly in line with the FP6 general objective of benefiting citizen and society in a broad and democratic sense and addressing sustainable development. The TRANSGEN project meets the need for clarification and identification of themes and topics, where gender specific actions should be up-taken in transport research and innovation. In addition, it reflected upon how themes and topics could be better gender reflected. The project was also filling the gap between the recent European research and innovation agenda setting and the European gender mainstreaming policy. The TRANSGEN project consisted in both mapping on the one hand existing gender policy issues and gender research activities related to transport and on the other hand, performing gender impact assessments for recent transport policies and related research and innovation strategies. The mapping exercise was next to desk research based on an expert workshop and interviews. The TRANSGEN project was expected as starting point for networking and platform activities for gender mainstreaming and engagement in the transport research and innovation sector. It was clarifying and putting into perspective European Union research and innovation initiatives and gender equality policies at that time and provided a respective knowledge base for gender mainstreaming and gender equality policy issues to be implemented in European transport research and innovation.

### **SPECIFIC PROJECT OBJECTIVES**

The overall objective of the project was to develop and enhance future activities in relation to gender mainstreaming and gender equality in the transport research and innovation sector. The specific objectives of the TRANSGEN project were to provide:

- A mapping of gender issues in the transport sector as such and in the transport research and innovation area in particular;
- A mapping of public policy initiatives in the field of transport and gender;
- A set of recommendations for gender policy implementation in the transport research area.

Therefore, the specific objectives can be operationalised as follows:

- To set a knowledge base for future research and innovation in FP6 by linking the transport sector and research and innovation in this sector with gender mainstreaming and gender equality issues.
- To develop gender mainstreaming in the field of transport as part of the research and innovation strategy and as strategic approach.

- Make the field of transport more sustainable and compliant with European Union strategic aims promoting gender equality and equality between men and women.
- To support the European Union objective of an integrated transport system benefiting the European citizens and society in a broad and democratic sense.
- To investigate, how the deployment of transport infrastructure affects the social and economic life in a gender perspective.
- To add European value to the field of gender mainstreaming and transport research by developing and facilitating future action under FP6.
- To bring the European gender research in the transport sector in line with the state of research in the US, where research in this field is already more profiled.
- To gather fragmented national and European activities and expert knowledge regarding gender issues in the transport sector and related to transport research and innovation

During the project duration actual gender mainstreaming and gender equality policies and best practices to address specific issues and actions concerning gender, transport and mobility were identified and analysed in a comprehensive knowledge mapping exercise. An advisory board was accompanying this process. A workshop involving gender research and gender impact assessment experts as civil society actors and policy makers was performed. The outcome of the mapping exercise and the expert workshop results were disseminated by a web platform and other media. Recommendations were given on how to better include gender mainstreaming and gender equality issues into transport research and innovation, to give one example: how to frame and formulate themes and topics in transport research more gender sensitive.

The TRANSGEN support action (SSA) was addressing the FP6-SaS programme objectives in the gender and science dimension with regard to capacity building for gender mainstreaming and gender equality in the transport sector. In the FP6-SaS programme such sectorial approaches were strategically implemented not alone addressing the transport, but as well other sectors like for example energy or industrial technologies. These types of specific support action were particularly relevant for the "making of the European Research Area" by implementing gender mainstreaming and gender equality issues into the European framework programs thematic areas. A similar trend can be observed around the time of the TRANSGEN project regarding member states research and innovation support actions representing another significant corner stone for the making of the European Research Area (ERA).

#### **SaS/SiS Programme objectives/Action lines**

The main aim of the European Commission was to boost gender equality in research, through:

- Stimulating the participation of women in science and technological development;
- Thus fostering the integration of the gender dimension throughout European research.

The project managed to take stock of policies in the pursuit of gender equality, with a particular focus on the transport sector and not in research in general. Examples of these support actions aimed at making the transport more sustainable and compliant with European Union strategic aims promoting gender equality and equality between men and women. It gathered fragmented national and European activities and expert knowledge regarding gender issues in the transport sector in particular related to transport research and innovation.

#### **SaS Action Plan**

TRANSGEN was related to a number of actions of the SaS Action Plan:

- Action 24 Set up a European Platform for Women Scientists: Women from all over Europe have participated on the process of realization of this project, sharing information and knowledge about gender issues in the transport sector.
- Action 25 Monitor progress towards gender equality in European Scientific Research: The first step to accomplish the follow-up of gender equality has been done by the mapping of research, policy initiatives and screening of research and advisory groups with a particular focus on transport.
- Action 27 Promote gender equality in science in the wider Europe: During the TRANSGEN projects, on its Expert Workshop as on its Advisory board Meetings, there have always been participants from both old and new EU Member States.
- Action 28 Ensure co-ordination of prospective activity at the European level: Together with participants from research, policy-making and civil society, TRANSGEN also developed prospective activities such as recommendations on how to better include gender mainstreaming and gender equality issues into transport research and innovation, including the framing and formulation of themes and topics in future transport research.

## **PROJECT RESULTS AND OUTCOMES**

### **Main achievements according to project objectives**

The main deliverable of the TRANSGEN project is the final report "Gender mainstreaming European Transport research and policies". The report is comprising several chapters including a chapter for policy recommendations. The report is conceptualizing gender mainstreaming for transport research and has several analytical chapters discussing for example the gendered transport user or assessing the role of gender mainstreaming and employment effects with

regard to the transport sector in Europe. The foreword was provided by Christina Marolda, policy officer at the time in the sustainable transport unit in the transport directorate DG RTD. Mrs. Marolda was responsible for women in transport and gender mainstreaming issues in the transport directorate of DG RTD. The report was not published as a European Commission document. However, it attracted many readers and is a key-document for framing gender mainstreaming in the transport research area and transport policy. The project provided adequate interaction between researchers, policy makers and representatives from industry, civil society- and other stakeholder organizations. The outcome of the TRANSGEN project meets the three vital axes of bringing science and research closer to society, in the promotion of responsible and gender sensitive research and innovation in the transport sector. It fostered the dialogue in relation to the gender dimension in science, research and innovation. Different countries were offering differential frameworks for the implementation of gender mainstreaming into the transport and mobility sector at the time. The coordination of different perspectives and strategic initiatives was supporting a better balance of gender mainstreaming and gender equality issues in transport research and innovation action. The identification of research results and of good practices in gender mainstreaming was the major outcome of the knowledge mapping exercise. This outcome was delivered by the already above mentioned final report.

Even if the principal objectives of TRANSGEN project were accomplished, some issues required further deepening. For example, the transport mode of walking was not sufficiently covered, even though the provision of walking is crucial in cities. The pedestrian perspective and the cyclist perspective could have been included in the mapping, as those would have contributed to the sustainability goals.

### **Main achievements according to Programme objectives**

The knowledge produced as part of TRANSGEN has been used and disseminated both in the research and policy context:

- In the research context the aim has been to highlight the gender aspect of transport and mobility by showing the results of the project and to do so both in a gender studies context as well as a transport research context.
- In the policy context the aim has been to make policy-makers and planners aware of the gender aspect of the transport sector.

This has been achieved through different debates held at national level in many EU Member States in the following ways:

- The first draft of the report was presented for transport planners and researchers at the Traffic Days at Aalborg University, Denmark in August. This was an opportunity to get a response from a broader audience.
- The project was presented at the NING (Nordic Information Network in Gender) meeting in Oslo November 2007.
- The project was presented at the Danish gender Research Conference at Århus University 2007.
- Copies of the final report were posted to relevant researchers and research institutions.

### **Main achievements according to SaS dimensions**

TRANSGEN has been a project which did not only look at how to improve women's representation in science and research in the transport sector ('fixing the numbers'), but it also took a much deeper analytical approach by taking stock of gender issues in order to develop gender mainstreaming in the field of transport as part of the research and innovation strategy and as strategic approach. This included, for example, an investigation of how transport infrastructure affects the social and economic life from a gender perspective. TRANSGEN prompted a gendered research perspective analysing drivers and barriers for gender mainstreaming.

### **DISSEMINATION AND ENGAGEMENT ACTIVITIES AIMED AT TRANSFERRING THE PROJECT RESULTS TO WIDER COMMUNITIES**

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Dissemination activities consisted of distributing the report and the recommendations to a wide range of European research promotion agencies and advisory groups. All deliverables and results including the final report, were made publicly available on a website. The project intended to establish a gender and transport network, what succeeded with the women and transport platform (WiT) some years later. In detail, raising public and civil society awareness was a strong dissemination target in the TRANSGEN project. Women social movements were particularly addressed by the projects dissemination activities.

### **PROJECT IMPACTS**

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The project was performed only by one European research actor. This is not very common in the European research and innovation in the European Framework programmes cooperation area. The TRANSGEN project was a specific support action (SSA) to support programming and agenda setting for research and innovation actions. Transfer and integration of gender mainstreaming and gender equality issues into programming and agenda setting was in focus. The dissemination regarding the outcomes of the knowledge mapping exercise and the results of the expert workshop was well delivered by a participant University of Copenhagen.

The University of Copenhagen is present within the top 1% of research organizations active in the European Framework programmes. It is according to the Leiden University ranking at rank 136, which indicates a medium level in the Leiden ranking. The TRANSGEN project is a specific support action and not a scientific research and innovation project. The University of Copenhagen and its staff mainly played a role for identifying and analysing gender



mainstreaming and gender equality issues and related best practices in the transport sector and in transport research and innovation.

The actual impacts of the TRANSGEN project can be classified into:

- **Scientific impact** of the TRANSGEN project some publications can be identified.
- **Institutional impact** the impact of the TRANSGEN project was high. The TRANSGEN project marks a starting point towards a European initiative called women in transport (WiT). This platform is engaged in European transport research and innovation policy and performs dedicated networking and dissemination activities for example a bi-annual conference next to the European Commissions Transport Research Arena (TRA) or a regular women in transport session at the annual International Transport Forum (ITF) in Leipzig.
- **Policy impact** of the TRANSGEN project was highly relevant at the time. The project was transferring gender mainstreaming and gender equality issues to research programming in the transport research and innovation area at the European policy level and even beyond.
- **Social Media Impact** tends to zero. Regarding the fact that the TRANSGEN project was running from 2006 to 2007, social media was not as prominently applied at that time as it is today.

### **PATH-BREAKING ADVANCEMENTS**

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To implement or better transfer gender mainstreaming and gender equality issues to research programming and strategic agenda setting in transport research and innovation was path-breaking at that time. The project had a strong impact in this respect not alone regarding effects for better framing (gendering) themes and topics in FP6 and the later FP7, but it was also influential in transferring gender issues to transport research and innovation programming initiatives across the European member states. The French PREDIT national transport research and innovation program is a good example for.

### **BEST PRACTICES**

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None.

### **EU ADDED VALUE OF THE PROJECT**

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The TRANSGEN project had not a particular European added value in the sense of several research organizations cooperating in a particular research and innovation field in a European project. The project was a specific support action to support programming and strategic agenda setting: on one hand with regard to FP6-SaS and FP7-SiS, but on the other hand supporting as well the thematic domain sustainable surface transport and aeronautics under FP6 and FP7. The project may have as well influenced and supported other research programming cycles for example for the European regional and cohesion funds or like above already mentioned at the national level.

### **PARTICIPANTS AND RESEARCH TEAM**

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Only one participant was involved and coordinating and performing the TRANSGEN specific (program) support action. The budget provided for this support action was in this respect appropriate for one beneficiary.

#### **Participant**

Number of participants: 1

Number of countries involved: 1

	Type	Country	Role	Previous participations in FP
UNIVERSITY OF COPENHAGEN	HES	DK	Coordinator	55

Team Size: 6 members\*

GENDER		
Female	Male	Unknown
83,0%	17,0%	0%
SENIOR		
Average	Junior	Senior
17,0%	0%	83%
PhD		
No	Yes	
0%	100%	
BACKGROUND		



GENDER				
Applied Sciences	Health Sciences	Humanities & Social Sciences	Natural Sciences	Unknown
0,0%	0%	0%	83%	0,0%

*\*The data are based on the analysis of the provided project's Description of Work.*

## **DELIVERABLES AND PUBLICATIONS**

It presents the documents produced by the project (intermediate and final report, dissemination report) and any publication produced as direct consequence of the project.

### **PROJECT DELIVERABLES**

Mapping and Analyses (Final Report, public).  
 Policy Recommendations (Final Report, public).  
 Website (other, public).  
 Description of Work (DoW).  
 eCORDA  
 CORDIS database  
 OPENAIRE database

## **EXCELLENCE IN THE LIFE SCIENCES AREA -"ELSA"**

**Framework Programme: FP6**  
**Action line/Part: PART C: STEPPING UP THE SCIENCE/SOCIETY DIALOGUE AND WOMEN IN SCIENCE**  
**Activity: 4.3.5 Women and science**  
**Area: 4.3.5.2 Developing a better understanding of the gender issue in scientific research**  
**Dimension: Gender and Science**  
**Tool: Specific Support Actions**  
**Project Call For Proposal: FP6-2005-SCIENCE-AND-SOCIETY-17**  
**Status: Closed**  
**Total cost: € 90.505,00**  
**Total EU funding: € 90.505,00**  
**Website: -**  
**Period: 01/04/2006 - 31/01/2007**  
**Subjects: Information and Media - Scientific Research - Social Aspects**  
**Project ID and Acronym: ID: 31255, ACRONYM: ELSA**

### **BACKGROUND AND CONTEXT OF THE PROJECT AND STRATEGIC NEEDS**

Ensuring scientific excellence has always been key for EU research policy and progress. Despite the interest raised in the public debate, the definition of "scientific excellence" was not unique and relied on several determinants such as originality, publications and innovative force. Assessing excellence without coherent criteria and transparency could lead to the prevalence of subjective judgements. Furthermore, as revealed in gender studies of research policy presented in the report "Gender and Excellence in the Making", women scientific careers were affected by an unequal application of the term. Therefore, there was a need for reframing the discourse on "excellence" from a gender neutral perspective, analysing the evaluation systems and parameters of excellence applied to scientific careers. As pioneer, the life science community took the initiative of turning the gathered knowledge about appraising scientific excellence into practice.

### **SPECIFIC PROJECT OBJECTIVES**

The project aimed to organise a conference on Gender and Excellence in October 2006 at Karolinska Institutet, Stockholm, Sweden. Such conference would have served as vehicle to:

- Make recent research on scientific excellence available to decision-makers and evaluators/researchers in life sciences in order to form a solid knowledge base for further discussions;
- Focus on how scientific excellence was judged by in the scientific career path – in funding and recruitment bodies as well as in editorial offices, and policymakers within life science;
- Compile the results of the meeting for further discussions throughout Europe and use the meeting proceedings for seminars at European universities in 2007.

The organisation of a conference on Gender and Excellence was relevant for:

- **ERA:** ELSA was in line with the ERA priority "Gender equality and gender mainstreaming in research" to avoid the waste of talent, to diversify views and foster excellence. The discussion on the excellence criteria would have contributed to the establishment of a research environment free of gender bias thus fostering gender equality. Recommendations issues and experiences shared at the conference would have favoured the creation of a European Research Area accessible to all.
- **Innovation Union:** the Commission has always striven for excellence and innovation to increase European competitiveness and performance. By supporting the development of better assessment systems based on equal opportunities in science, ELSA was expected to contribute to the recruitment process of scientists, especially in the Life Science Area, and hence to the EU scientific performance. More specifically, the project supported the IU objective "strengthening the knowledge base and reducing fragmentation" by supporting the spread of gender neutral and more coherent parameters of «excellence».

### **SaS/SiS Programme objectives/Action lines**

The ELSA Conference was in line with the main objective to boost gender equality in research through stimulating the participation of women in science and fostering the integration of the gender dimension throughout European research.<sup>13</sup> In fact, the conference was expected to support a better understanding of the gender issue in scientific research by minimising gender bias in the measurement and evaluation of scientific excellence. Furthermore, it was intended to stimulate synergies and co-operation among scientists, policymakers in the European life science community.

### **SaS Action Plan**

<sup>13</sup> SaS Work Programme (2005-6).

As underlined in the SaS Action Plan, the research agenda had failed to take the specific needs of women into account. The effort made by ELSA through the conference, was meant to solve the structural problems hampering women in their advancement to higher job positions. By supporting fairness in European research and evaluations, the project contributed to achieve the SaS Action plan objective of producing gender equality in science and related actions.

## PROJECT RESULTS AND OUTCOMES

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### Main achievements according to Project objectives

The ELSA conference, "Excellence in the Life Science Area", was organised at Karolinska Institutet, Stockholm, Sweden on 5<sup>th</sup> and 6<sup>th</sup> October 2006. A total of 119 people from identified organisations, including national and EU policy makers, research and education institutes, and think tanks took part to the conference. It gathered recent research in the field of scientific excellence and discussed a wide range of general issues related to gender and excellence. The conference allowed to:

- Share good practices and experiences in assessing scientific excellence among researchers and decision-makers. Representatives of public and private granting bodies shared their practices concerning how to ensure transparency and accountability to finance excellent research;
- Understand how scientific excellence was judged in all evaluation procedures and the pros and cons of bibliometrics from a gender perspective. The conference revealed that transparency and clearly defined evaluation criteria were key factors to ensure excellence. The definition of evaluation criteria for achieving and maintaining excellence in research and the slow progress of women reaching senior scientist positions were also discussed in the conference;
- Clarify the role of formal and informal gatekeepers in the development of scientific knowledge. The conference also addressed the conditions allowing for excellent research to be performed in Europe (e.g. exceptional research environments and talented individuals) and evaluation systems/parameters of excellence employed in a life scientist's career chain from a gender perspective;
- Address specific issues for life science with representatives from major European founding bodies, editorial offices and European universities. The life science area was used as a pilot area.

### Main achievements according to Programme objectives

ELSA contributed to improve the understanding of gender issues in scientific research by focusing on the evaluation and measurement of scientific excellence. It underlined the great importance of offering equal opportunities for everyone irrespective of gender, ethnicity or religion. In line with expectations, the conference stimulated the policy debate by:

- Communicating research results on measuring excellence from a gender perspective, the assessment of methods, bibliometrics, parameters applied by gatekeepers in recruitment and funding bodies, publishers and decision- and policy makers improved the knowledge base;
- Supporting the establishment of links between the research community and policy makers;
- Adding the gender perspective at all levels;
- Addressing the use of scientific excellence as a criterion in judging popularisation of science.

### Main achievements according to SaS dimensions

ELSA contributed to the women and science SaS dimension and to the shift of the discourse towards gender mainstreaming. The project addressed the gender dimension by focusing on its relation with excellence and specifically, on how scientific excellence was judged and assessed throughout women scientists' career. The effort aimed at eliminating the barriers for women and at supporting the definition of transparent and fair systems for assessing merit, quality and productivity. The conference was a mean to remove gender bias and to raise the consideration of gender equality. Thus, ELSA adopted a gender mainstreaming (GM) strategy to support the widest adoption of a gender neutral perspective in the management of all institutions and processes.

## DISSEMINATION AND ENGAGEMENT ACTIVITIES AIMED AT TRANSFERRING THE PROJECT RESULTS TO WIDER COMMUNITIES

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Based on the Description of Work, the conference was conceived to disseminate the work and discussions of leading expertise to a European level. The extended discussions at the conference were to be summarised in a report, available on websites and spread to all participants.

In line with expectations, the conference mainly addressed researchers and policy-makers from across Europe reaching an audience of 119 people. The dissemination activities carried out for the conference included:

- the use of the **website** as a central contact point to spread the relevant information to all the interested stakeholders ([ki.se/ELSA](http://ki.se/ELSA));
- 200 **personal invitations** sent to identified researchers, policy makers and 400 **e-mail invitations** sent to identified organisations and stakeholders across Europe;
- 4 **articles** published in specific press releases addressing Swedish and international media as well;

- spreading of the information about the Conference outside the life science area through EUROLIFE meeting (21<sup>st</sup> November 2005), several LERU meetings, the European Platform of Women Scientists (EPWS) and the European University Association (EUA);
- A **Conference Report** submitted in March 2007 and addressed to a large audience (approximately 400 persons) including participants at meeting, NGO's, identified stakeholders and policy-makers. The report was used as material for a continued European discussion on development of scientific excellence and made available on the web-site.

## PROJECT IMPACTS

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The ELSA project activities were not foreseen to affect just the conference participants but to reach a wider audience made of key stakeholders in the European Research Area. They were expected to:

- Continue the discussion started by influential gender researchers in Florence in 2003 and to assemble leading experts on scientific excellence and key European representatives from funding and recruitment bodies as well as decision-makers from editorial and governmental offices;
- Analyse economic aspects of wastage of human talent, since potential costs of researchers "leaving the system" were considered high for universities and for the society as a whole;
- Shed light on the selection processes, from receiving funding for a proposed project, publishing papers and disseminating findings. The discussions were expected to raise the awareness of the gender dimension in judging scientific excellence among all participants, including decision- and policymakers.

The potential impacts are favoured by the fact that the project coordinator, the Karolinska Institutet Innovations, was in the top 1% of the most central organisations in the FP (*betweenness centrality*). The high centrality of the institute showed that the participant had a long experience in previous projects and that it also established relations with other important partners. Furthermore, the institute was included in the Leiden ranking for the quality of its publications.<sup>14</sup>

Based on the project documents, the actual impacts can be clustered into:

- **Scientific impact:** There were 4 publications related to the project in the press release ;
- **Institutional and organisational impact:** At the time of the ELSA conference, the Karolinska Institutet already played a key role in several European networks: League of European Research Universities (LERU) committed to influence the research policy in Europe also through policy papers distributed among members and to the EC; EUROLIFE a network aimed at facilitating collaborative research within life sciences. Such networks were used to disseminate information and continued the discussions on national and European levels after the closing seminar of the conference. Today the Karolinska Institutet is a member of the EUROLIFE Network of European Universities in Life Sciences, under which several EU-funded research projects have been developed (e.g. AUTOCURE<sup>15</sup>).
- **Policy impact:** By discussing excellence and gender issues in life sciences, the ELSA project contributed to shape the European science policy providing inputs and feedback from the research community and key stakeholders. It also served as starting point for applying gained knowledge into practice and for starting a cross-country debate on the gender dimension in excellence. Recommendations issued and experiences shared by the speakers added to the development of a thriving European Research Area accessible to all and equal to all scientists regardless of gender.
- **Social media impact:** There has been no relevant social impact in terms of social media listening buzz results. This may be in part due to the technology and social media development at the time of the project implementation (2007-2008).

Obstacles in continuing the partnership beyond the conference, included the lack of legitimacy and the external uncertainties. Although the analysis of challenges and success factors was led in the Norwegian context, it was relevant for researchers across Europe.

## PATH-BREAKING ADVANCEMENTS

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The discourse on "excellence" needed to be reframed defining gender neutral parameters of evaluation and transparency for all scientists. The ELSA project brought a new approach to the discourse on "excellence" which focused on meritocracy and individual achievements throughout life scientist's career regardless of gender. The ELSA conference made the latest research findings on scientific excellence available to stakeholders in life sciences. Thus, the life science community pioneered the discourse on "gender excellence" and the shift from theory to practice.

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<sup>14</sup> The Institute was placed 182 in the Leiden ranking.

<sup>15</sup> Led by the Karolinska Institute and funded under the FP6 Programme, the EUR 11 million-funded AUTOCURE aimed at developing new therapies for common inflammatory rheumatic diseases.

## BEST PRACTICES

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None.

## EU ADDED VALUE OF THE PROJECT

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A common understanding of "scientific excellence" and a coherent approach for its assessment was missing at the time of the project. To boost EU competitiveness and to ensure sustained and innovative high-quality research, an alignment in the interpretation of the concept and in its application by researchers and policy-makers was needed. ELSA addressed the fundamentals of "excellence", its evaluation criteria and factors in relation to gender at EU level to develop a common view and knowledge beyond national specificities. The list of participants to the conference included several actors and organisations within life sciences (e.g. decision-makers, gender researchers and life-science researchers) active in the European research area so as to ensure the widest exchange of the latest findings in research and define a common knowledge-base. An EU-wide reflection on how to ensure a transparent and objective assessment of research applications, the experiences gathered during the conference and the recommendations provided were expected to be taken into consideration across Europe.<sup>16</sup>

## PARTICIPANTS AND RESEARCH TEAM

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### Participants

Number of participants: 1

Number of countries involved: 1

	Type	Country	Role	Previous participations to FP
Karolinska Institutet	HES	Sweden	CO	162

### Team Composition

Team Size: members\*

GENDER				
Female		Male		Unknown
63,0%		37,0%		0,0%
SENIORITY				
Average		Junior		Senior
4,0%		33,0%		63,0%
PhD				
No			Yes	
63,0%			37,0%	
BACKGROUND				
Applied Sciences	Health Sciences	Humanities & Social Sciences		Natural Sciences
0,0%	22,0%	26,0%		4,0%
				44,0%

\*The data are based on the analysis of the provided project's Description of Work.

## DELIVERABLES AND PUBLICATIONS

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It presents the documents produced by the project (intermediate and final report, dissemination report) and any publication produced as direct consequence of the project.

DELIVERABLE NO.	DELIVERABLE NAME	DUE DATE OF DELIVERY (month)	ACTUAL SUBMISSION DATE: (month)
D1:1	Tentative programme	1	15
D1:2	Final programme	3	15
D1:3	Instructions to conference bureau	3	15
D2:1	Invitation to speakers	3	15
D2:2	Information to speakers	9	15

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<sup>16</sup> ELSA Conference Report

DELIVERABLE NO.	DELIVERABLE NAME	DUE DATE OF DELIVERY (month)	ACTUAL SUBMISSION DATE: (month)
D2:3	Guidelines to speakers	9	15
D2:4	Guidelines for abstracts	9	15
D2:5	List of speakers	11	15
D2:6	Abstract book	11	15
D3:1	Personal invitations to delegates	4	15
D3:2	Published open invitations	5	15
D3:3	Information packages to delegates	11	15
D3:4	List of delegates	11	15
D4:1	Registration of participants	11	15
D4:2	Conference Dinner	11	15
D5:1	Budget	3	15
D5:2	Reports to European Commission	14	15
D5:3	Meeting report	14	15

Publications no.	PUBLICATION	LINK (when available)
1.	<i>Genusperspektiv nr 6/06 (Swedish journal focusing on gender issues)</i>	-
2.	<i>Biotech Sweden nr 9 2006 (Swedish journal focusing on the Biotech market)</i>	-
3.	<i>KI-Bladet okt-06 (Karolinska Institutets paper for staff, also reaching approximately 500 stakeholders at governmental offices, biotech companies and Swedish universities)</i>	-
4.	<i>Biotech Sweden oct 2006 (News item before the conference)</i>	-

#### MAIN SOURCES

ELSA Conference Report (2006).

ELSA D5:2 Reports to European Commission (2007).

ELSA Final activity report Executive Summary: [http://cordis.europa.eu/docs/publications/1239/123971551-6\\_en.pdf](http://cordis.europa.eu/docs/publications/1239/123971551-6_en.pdf)

Forsberg EM (2014). Institutionalising ELSA in the moment of breakdown? *Life Sci Soc Policy*. 2014;10:1

## **ENCOURAGEMENT TO ADVANCE TRAINING SEMINARS FOR WOMEN SCIENTISTS "ENCOUWOMSCI"**

**Framework Programme: FP6**  
**Action line/Part: PART C: STEPPING UP THE SCIENCE/SOCIETY DIALOGUE AND WOMEN IN SCIENCE**  
**Activity: 4.3.5 Women and science**  
**Area: -**  
**Dimension: GENDER AND SCIENCE**  
**Tool: Specific Support Actions**  
**Project Call For Proposal: FP6-2005-SCIENCE-AND-SOCIETY-17**  
**Status: Closed**  
**Total cost: € 484.080,00**  
**Total EU funding: € 428.080,00**  
**Website: Website no longer available**  
**Period: 01/10/2006 - 31/07/2008**  
**Subjects:**  
**Project ID and Acronym: ID: 36653, ACRONYM: ENCOUWOMSCI**

### **BACKGROUND AND CONTEXT OF THE PROJECT AND STRATEGIC NEEDS**

Women are still underrepresented in leading positions in the scientific and research fields. Only 13,2% of women scientists are senior academic staff, even though half of the student population in the European Union is female. ENCOUWOMSCI aimed to empower women scientists and to stimulate their participation in science and technological development. It was also designed to stimulate their mobility and participation in the European Research Area (ERA). The proposal addressed female Doctorate scientists who wished to work as a professor. Through a four-day long international application and career training seminar, highly qualified women scientists were prepared for appointment and application procedures for professorships in Austria, Belgium, the Netherlands, Switzerland, Germany and, where possible, in the Czech Republic. Those countries were selected since their appointment procedures were very similar.

### **SPECIFIC PROJECT OBJECTIVES**

The training seminars were meant to pursue the following objectives:

- The **preparation of approximately 224 women scientists in appointment procedures** for professorship at universities and research institutions of the involved countries by: getting acquainted with the specific forms of appointment procedures within the respective countries which reflect the different scientific cultural communities; getting trained through role plays;
- The **development of career strategies and possibilities for strengthening one's own scientific profile**, specifically in view of establishing international research connections, by exchanging information concerning participation in EU programs; focusing on aspects of international research cooperation; the possibility of individual career planning and of working out further career steps;
- **Getting to know appointment procedures** in neighbouring countries;
- The **formation of a network** among the participants continuing after the end of the seminar and supporting female scientists at various career levels;
- Support for the further **development of self-management skills**;
- **One day of the seminar dedicated to meeting policy makers**, European Commission officials and representatives of lobby groups and networks. In so doing, women scientists could acquire a **better understanding of the key players in Europe** thus playing a more active role in the ERA.

Promoting gender equality in science in the ERA was a guiding principle in the Commission Work Programme of 2006 in the field of 'Science and Society'. The project promoted the mobility of women scientists – the mobility of scientists within the EU and the exchange of scientists (female and male) between Member States is an essential part of the ERA.

### **SaS/SiS Programme objectives/Action Lines**

ENCOUWOMSCI was in line with the programme objective to boost gender equality in research, through stimulating the participation of women in science and technological development. By improving the career self-management skills and awareness of the recruitment processes and mechanisms, the project aimed to empower women scientists and to improve their chances of success. The enhanced participation in the job market would have resulted in a higher possibility to achieve leading roles and positions in the field.

### **SaS Action Plan**

ENCOUWOMSCI contributed to promote gender equality in science which was an objective of the SaS Action Plan (Action 27). By training female Doctorate scientists in application procedures, the project aimed at supporting them in pursuing their careers and in acquiring self-management skills to progress. Through its activities, ENCOUWOMSCI contributed to the following targets set out in the Plan:

- **Mobility** of researchers and students;
- **Information** on studies and scientific careers;

- **Empowerment** of women scientists.

## **PROJECT RESULTS AND OUTCOMES**

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### **Main achievements according to Project objectives**

From April 2007 to January 2008, 112 highly qualified female scientists from all EU-countries participated to one of the 12 four-day application and career training seminar in Brussels. The project achievements matched with the announced objectives. In detail:

- Women scientists took part to **intensive training on appointment and application procedures for professorships in six target countries** (Austria, Belgium, Germany, Switzerland, the Netherlands and, where possible, in the Czech Republic). They got acquainted with aspects of appointment procedures and countries' scientific and cultural communities (also through role play training);
- Participants **discussed about career strategies** and optional ways to strengthen their own scientific profile to make it competitive on an international basis. A strong focus was put on aspects of international research cooperation and European research policy by exchanging information about EU 7<sup>th</sup> Research Framework Programme in each seminar;
- **An informal network** kicked off in the internal networking event organised by CEWS in November 2008. The initiative connected 112 ENCOUWOMSCI participants through an e-mail account accessible for every participants and a group on a social internet platform. Participants committed to meet on a regular basis and to collaborate in individual research projects after the end of the project;
- **a value-added support was provided to women scientists**, empowering them to successfully follow and manage their careers;
- **One day of each seminar was dedicated to European affairs** through meetings with policy makers, lobby groups or networks representatives and information exchange on funding in FP7.

The project was subject to a quantitative evaluation and data of each participant were continuously collected at the time of (i) application to the project; (ii) right after the seminar and (iii) four months after the seminar looking also at plans for future career progression, and their attitude towards mobility. The main findings are reported below<sup>17</sup>:

- 99% of participants believed that taking part in the project was worthwhile and 94% felt encouraged by the seminar;
- 68% of participants from humanities, social and cultural sciences and 48% of the participants from natural sciences and medicine stated that they applied either further or for the first time for professorships after taking part in to the training. They felt empowered by being trained in essential parts of application processes and well informed about appointment procedures in different countries.
- 89% of participants stated that they would recommend the project to other women scientists in a similar situation.

Following a project amendment in October 2007, a qualitative evaluation was also carried out through 11 telephone interviews, 10 of which were analysed. The evaluation revealed that:

- During the training activities, the personal consultation with a trainer and interview simulations were widely appreciated. According to the evaluation's results, rehearsing the talk and interview with the appointment committee in the group helped participants to view the situation from a different perspective and thus raised their confidence;
- 7 out of 10 applied for one or more professorships since their participation in the project and the interviewed participants felt empowered and encouraged to apply for professorships, after the training seminar.<sup>18</sup>

### **Main achievements according to Programme objectives**

ENCOUWOMSCI brought together women scientists from different countries to reflect upon their role in science and society thus strengthening their own image and position. By training women scientists from all backgrounds, the project contributed to boost gender equality in different thematic fields while stimulating women scientists' participation and mobilisation. Looking at the expected results, the project outcomes contributed to light up the policy debate at national and regional level around women scientists' careers and obstacles thanks to the involvement of policy-makers and institutional representatives in dedicated meetings during each seminar. Women receiving the training could also become role models for students and young scientists. Therefore, ENCOUWOMSCI supported the programme objective of raising young people's interest in science, especially among young women, by motivating them to pursue careers in science.<sup>19</sup>

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<sup>17</sup> ENCOUWOMSCI Publishable Final Activity Report (2009), page 2.

<sup>18</sup> To support and extend the quantitative data, qualitative telephone interviews were carried out with a sample of 10 participants that reported in detail about their activities and attitudes after participating in the project.

<sup>19</sup> The European Commission: Work Programme: 2004, Science & Society, Version January 2004.



### Main achievements according to SaS dimensions

The project supported the Gender and Science SaS dimension but it applied an "old" concept of the dimension. In fact, ENCOUWOMSCI focused directly on fostering the participation of women in science rather than driving a cultural change in the Institutional settings. Clearly, gender mainstreaming in institutions could derive from the networking interactions but it was not the primary scope of the project. Essentially, it carried out activities aiming to: (i) integrate women in all areas; (ii) Eliminate barriers for women; (iii) Take into account their needs and interests.

The project provided added value to women scientists empowering them to successfully follow their careers by:

- Providing targeted information to women scientists facilitating cross-disciplinary contacts between women scientists;
- Supporting cross-discipline and cross-national research projects including the inspiration of projects;
- Indicating potential funding areas within FP7 as well as providing advice on resources and funding;
- Giving background information on the policy making process in the European Union;
- Sensitising them for the role they can and must play in the European research policy debate.

### DISSEMINATION AND ENGAGEMENT ACTIVITIES AIMED AT TRANSFERRING THE PROJECT RESULTS TO WIDER COMMUNITIES

The dissemination plan of the project announced the use of the publication series cews.publik and a final meeting to communicate the final results of the projects' evaluation, the general concept, work plans and budget calculations for the seminars. Networking connections with the European Platform of Women Scientists were also planned to disseminate the idea and results of the seminars. A snowball effect was expected as a result of networking among project participants as well as with the National Contact Points for "Science and Society" in all EU Member States. In line with the expectations, a variety of dissemination means were used:<sup>20</sup>

- Information about the project was disseminated through the coordinator's website (<http://www.cews.org>) and also the European Platform of Women Scientists (<http://www.epws.org>);
- A leaflet was created to be handed out at conferences and network-events;
- Networking among participants was ensured throughout the project duration through a communication platform on the CEWS-website and a networking event in Brussels in 2008. The training seminars themselves offered opportunities for CEWS staff members, members of the board of experts, trainers, participants and external experts from other countries to get in personal contact with each other with regard to different issues, thus constituting an informal "Equal - Opportunity - Network";
- Contacts for disseminating the final publication were established, including National Contact Points, key stakeholders, networks of women scientists and post-docs in several countries, members of national and international research organisations, experts on women and science in the ERA, and persons from HRD;
- A final conference, 'Supporting Women in Scientific Careers', was organised and carried out in cooperation with the EU-project 'Advanced Training for Women in Scientific Research' (ADVANCE). It took place on the 26 and 27 of June 2008 in Brussels to disseminate experiences and intermediary results of the project;
- Project results were available in a **final publication** in the series cews.publik Beiträge no. 5, edited by Anke Lipinsky (CEWS). The publication contained a description of the project concept, an article about the training concept of the seminars developed by Dr. Margarete Hubrath, an article about the quantitative evaluation and one about the qualitative evaluation.

Differently from the Dissemination plan, no relevant evidence of media coverage was documented in project reports. In fact, the plan stated that media were essential to spread information about the idea of the seminars and their impact. Besides the CEWS contacts, no snowball effect was generated by the international experts or the EC press services.

### PROJECT IMPACTS

The potential impact of the project for the participants of the seminars laid in **improving the starting conditions for successful applications for leading positions nationally and internationally**. It thereby supported a higher representation of women on a national and international level. The project also provided background information on the political players in Brussels. The intended impact here was to **increase the interest and the willingness of women scientists to become more active in the policy debate and get involved in decision-making processes**. Women scientists will then become an integral part of science governance and raise over the critical mass.

Through providing information on application procedures in different European countries and kicking off networking between scientists from different countries, the project helped to **increase the mobility of women scientists**

<sup>20</sup> ENCOUWOMSCI Publishable results of the Plan for using and disseminating the knowledge (2007).

**within the European Research Area.** On the whole, the seminars fostered a dynamic interchange between core actors on critical topics.

Nevertheless, many of the member organisations of the Arbeitsgemeinschaft Sozialwissenschaftlicher Institute (ASI), the only association involved in the project, show high level of centrality in the overall FP network and thus are likely to widely diffuse and spread information and knowledge and to have a high impact. The Universität Mannheim and the Otto-Friedrich-Universität Bamberg both appear in the top 10% of the most central organisations in the overall FP network. The Robert Koch-Institut, the Universität Hamburg, and RWTH Aachen University all appear in the top 5% of the ranking. The top 1% includes the Rheinische Friedrich-Wilhelms-Universität Bonn, the Universität Bremen, the Technische Universität Darmstadt, the Universität Duisburg-Essen, the Universität Kassel, and the Friedrich-Alexander Universität Erlangen Nürnberg.

Concerning the **actual impacts**, they can be classified into:

- **Scientific impact:** No scientific publication related to the project has been released. This is consistent with the aim of the project, which is more operative than scientific: the project aims at providing women scientists with concrete support (information, networking, and knowledge) to their career.
- **Social media impacts:** The final conference served as a platform for establishing contacts to potentially interested persons from Human Resource Development, National Contact Points, and European universities. Several attendees of the final conference expressed interest in establishing similar seminars within the programmes of their research institutions. The participants will act as agents further promoting the concepts of the seminars. Moreover, the networking enabled by the project may result in further cooperation and experience exchange. Concerning the social media listening, the project did not produce any relevant buzz results (only three posts on social media have been detected within 2 years after the end of the project). This may be in part due to the technology and social media development at the time of the project implementation.
- **Institutional and organisational impact:** An informal network and new projects were initiated during an internal networking event in November 2008 and will be further maintained by the participants. The objective is to maintain contact and to facilitate cross-national and cross-disciplinary co-operations and projects.
- **Policy impact:** through the publication, the entire project's plan was documented and was used for lobbying for the implementation of the seminars into policy actions of the European countries.

## **PATH-BREAKING ADVANCEMENTS**

ENCOUWOMSCI could be seen as a new and unique approach for female post-docs intending to apply for senior positions in academia. While career support for women scientists generally focused on national structures and was carried out on a national scale, the ENCOUWOMSCI training seminars had a real European orientation. Such seminars raised awareness of the mobility of researchers, enhanced striving for an international career and encouraged to apply in different countries. Learning about recruitment and application procedures in theory and through role play in practice, the project reduced the uncertainties about going abroad and improved the chances of successful applications both in their home country and abroad. The informal networks that developed during a four day course were meant to insure trans-national access to research infrastructure within the ERA.

Moreover, career trainings and coaching seminars had long been used in the fields of economics, politics and society to encourage women in their career development. They were not so common in academia and research. Only a few years earlier, a couple of European countries had started developing specific training programmes to improve academic leadership opportunities for women at national level. ENCOUWOMSCI was different from those programmes and also from other EU projects. The EU-project ADVANCE, for instance, addressed female scientists in doctoral and postdoctoral positions, but did not focus on the next career step of becoming a professor. Thus ENCOUWOMSCI offered a unique opportunity for post-doctoral women scientists to improve their individual performance in the application process of top-level positions.

## **BEST PRACTICES**

ENCOUWOMSCI provided some good examples of best practices in terms of cooperation with other projects to enact synergies and scale up the results within the same programme. In fact, cooperation efforts were made with:

- the EU-project 'Advanced Training for Women in Scientific Research' (ADVANCE, coordinated by Danube University Krems, Austria) for dissemination of experiences and intermediary results of the project;
- the European Platform of Women Scientists (EPWS) in order to disseminate the knowledge on a European level;

Moreover, the way contacts with key players in European research were established and maintained during the whole project represented some best practice examples and laid down the ground for further collaborations.

## **EU ADDED VALUE OF THE PROJECT**

A better understanding of the European Union's research policy and key players in Europe was aspired to encourage women scientists to play a more active role in the research policy debate both on a national and European level. Hence, it contributed to the enhancement of the quality of the scientific discussion in the European Union.

Since international work experience and raising European funds adds weight to an application for a senior position in academia, a strong focus was put on aspects of international research cooperation and European research policy by

providing information about European Unions' 7th Research Framework Programme in each seminar. Thus, one day of each seminar was specially designed for European aspects, including information on funding in FP7, networking, and meeting network representatives.

The project benefited from the know-how and the exposure brought by the European Commission.

## PARTICIPANTS AND RESEARCH TEAM

### Participants

Number of participants: 1

Number of countries involved: 1

	Type	Country	Role	Previous participations to FP
ARBEITSGEMEINSCHAFT SOZIALWISSENSCHAFTLICHER INSTITUTE E.V.	OTH	DE	Coordinator	2

### Team Composition

Team Size: members\*

GENDER				
Female	Male		Unknown	
100,0%	0,0%		0,0%	
SENIORITY				
Average	Junior		Senior	
0,0%	25,0%		75,0%	
PhD				
No		Yes		
25,0%		75,0%		
BACKGROUND				
Applied Sciences	Health Sciences	Humanities & Social Sciences	Natural Sciences	Unknown
0,0%	0,0%	100,0%	0,0%	0,0%

\*The data are based on the analysis of the provided project's Description of Work.

## DELIVERABLES AND PUBLICATIONS

DELIVERABLE NO.	DELIVERABLE NAME	DUE DATE OF DELIVERY (month)	ACTUAL SUBMISSION DATE: (month)
D1	Records of the kick-off-meeting	2	2
D2	Formulation of the announcement advertise	2	2
D3	Public announcement	2	2
D4	Time schedule of the first six seminars	6	6
D5	Time schedule of the last ten seminars	11	11
D6	Seminar 1	7	7
D7	Seminar 2	8	8
D8	Seminar 3	9	9
D9	Seminar 4	9	10
D10	Seminar 5	10	10
D11	Seminar 6	12	12
D12	Seminar 7	12	12
D13	Seminar 8	13	13
D14	Seminar 9	13	13
D15	Seminar 10	16	16
D16	Seminar 11	16	16
D17	Seminar 12	17	19
D18	Evaluation concept	14	21
D19	Grant Budget announcement	14	21
D20	Overview of approved grants	18	21
D21	Implementation strategy	21	27
D22	Records of the final meetings	22	27

## **MAIN SOURCES**

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eCORDA  
CORDIS database  
OPENAIRE database  
ENCOUWOMSCI, Project deliverables  
ENCOUWOMSCI (2006), Preparation  
ENCOUWOMSCI (2009), Publishable Final Activity Report  
<http://www.open-evidence.com/sis-sas/fiche/36653.html>

## **ADVANCED TRAINING FOR WOMEN IN SCIENTIFIC RESEARCH "ADVANCE"**

**Framework Programme: FP6**

**Action line/Part: PART C: STEPPING UP THE SCIENCE/SOCIETY DIALOGUE AND WOMEN IN SCIENCE**

**Activity: 4.3.5 Women and science**

**Area: 4.3.5.3 Promoting the enhancement of the Gender Watch System and associated activities to promote gender equality throughout the European Research Area.**

**Dimension: GENDER AND SCIENCE**

**Tool: Specific Support Actions (SSA)**

**Project Call For Proposal: FP6-2005-SCIENCE-AND-SOCIETY-17**

**Status: closed**

**Total cost: 456165,7**

**Total EU funding: 456165,7**

**Website: Website no longer available**

**Period: 01/09/2006-31/08/2008**

**Subjects: Information and Media - Scientific Research - Social Aspects**

**Project ID and Acronym: ID: 36712 , ACRONYM: ADVANCE**

### **BACKGROUND AND CONTEXT OF THE PROJECT AND STRATEGIC NEEDS**

In 2006, more than half of the research and technological development investment in the EU was made by industry but only 15% of researchers in industry were women. Male and female career paths were significantly different and the road towards leading positions in academia and industry, was longer for women scientists than men. Thus, a dropout syndrome (referred to as the 'leaky pipeline') affected the market. During their career, women encountered many obstacles in science and technology working environments as well as in decision-making bodies concerned with scientific issues due to gender. Therefore, women underrepresentation in science and research was a serious challenge in the EU. ADVANCE intended to promote the participation of women in science/research decision making and policy definition by supporting female scientists in acquiring research and career management skills and tools that helped them build up their careers. To achieve such results, the main strategy consisted in providing expertise in structural and organisational aspects of scientific career promotion, enhancing skills relevant for the scientific academic and industrial context and experiencing a mentor-mentee relationship with senior researchers functioning as role models.

### **SPECIFIC PROJECT OBJECTIVES**

The project specifically aimed to:

- Develop **a model program for training and mentoring/coaching** of women scientists in research and career management in academic and industrial environments;
- **Transfer the knowledge** gained to partner institutions and other institutions at EU level;
- Create **a platform for extensive networking** and support to allow women scientists from different disciplines and sectors to exchange their experiences in career development;
- **Strengthen the networking between European female scientists** and scientists from new Member States.

The project objectives were relevant for:

- **ERA:** the project addressed the European Research Area's objective of enhancing the role of women in scientific research in Europe acknowledging the fact that European research suffered a considerable loss and inefficient use of highly skilled women. The training and mentoring/coaching programs set by ADVANCE, were essential to help women scientists build up their careers while the extensive networking experience was core to transfer the scientific knowledge to the wider community.
- **Innovation Union:** ADVANCE contributed to the IU key initiative of promoting skills development by focusing on the management/leadership skills which are essential to build up women scientists' career. Through the active networking experience between women scientists and the knowledge transfer to many institutions, the project was also expected to support Member States in achieving their national R&D targets.

### **SaS/SiS Programme objectives/Activity lines**

ADVANCE was relevant for the programme objective of boosting gender equality in research, through stimulating the participation of women in science and technological development. To promote the participation of women in science and decision making, the project supported the role of women researchers by providing mechanisms and tools to build up their careers.

### **SaS Action Plan**

The objectives set by ADVANCE were relevant to produce gender equality in science which was an objective of the SaS Action Plan (Actions 24-27). To attain such objective, the project addressed the problem of women underrepresentation in science through a model program for training and mentoring/coaching directed at women scientists. ADVANCE also aimed at producing transfer models to promote gender equality across many Institutions in Europe.

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## PROJECT RESULTS AND OUTCOMES

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### Main achievements according to Project objectives

ADVANCE helped female scientists to build a portfolio of personal and management/leadership skills as valuable asset for their professional life and career paths and promoted a better understanding of the academic and industrial research structures and functioning. As planned in the DoW, career training and mentoring as well as coaching activities were carried out during the project lifetime. The project duration was 2 years starting from September 2006. In detail, ADVANCE objectives were implemented through:

- an **International Summer School Program (track 1)** held at the Danube University Krems and focused on training in career management skills, essential for both the academic or industrial scientific/R&D environments;
- a **Mentoring and Coaching Program (track 2)** focused on building up mentoring relationships for professional and personal growth and established at all partner organisations;
- **extensive networking** among all participants in Track 1 and Track 2: mentors, mentees, trainers, trainees, and coaches at European level;
- **“Transfer Models”** to set up similar programs in other institutions in Europe.

The ADVANCE program provided a multiple, **gender-sensitive and career-relevant support and training** to women scientists in different career stages. Key figures on participation could be listed:

- 33 female researchers from old and new EU Member States participated in the Summer School. Their nationalities were probably due to the consortium composition (13 participants came from Eastern and 20 from Western countries);
- 25 disciplines in natural sciences and technology constituting participants’ background and ranging from physics, mathematics, computer sciences and engineering to biosciences and physics;
- 31 lecturers, moderators and experts contributed to the Advance Summer School and gave participants an insight into factors to be successful;
- 18 researchers also participated as mentees in the Mentoring and Coaching Program in the 6 ADVANCE partner universities;
- Only 1 Summer School participant came from the industry, a few were employed in governmental research organisations and a few in mixed sector settings while the overwhelming majority came from the academia.

The participants’ feedback to both of the tracks was very positive. The program reached well its intended target group (female researchers in pre-doctoral and postdoctoral career phase in natural sciences and technology), except for industrial researchers who showed little interest to apply. The short time frame was the main challenge in developing the relationship between mentor and mentees during the mentoring program. Recruiting motivated and highly qualified mentors and ensuring a careful time management during the program and the individual mentoring processes, were other important issues to take into account. Feedbacks on the pedagogical approach suggested that differentiating the contents by career phase and making the program more flexible as well as gathering more individual feedbacks, could be possible areas of improvement for future programs.

Based on the experience from the Summer School and the Mentoring and Coaching Program and on their evaluation, the Advance Consortium issued **“Transfer Models”** and **recommendations** for implementing the ADVANCE program in other European universities and research organisations. The main target groups included European universities and other interested academic and research organisations as well as individuals (academic staff, management and HR staff) and networks within these organisations interested in advancing women’s research careers.

### Main achievements according to Programme objectives

In line with the expected results, ADVANCE contributed to improve the understanding of women participation in science. Starting from organisations and mentors involved, the project made an effort to widely spread the knowledge gained through the programme. The main topics addressed by the project were:

- The need for specialized training and mentoring activities for female researchers and innovative learning experiences;
- The structural and organisational conditions of scientific career promotion;
- The individual strategies to enhance skills relevant in the scientific academic and industrial context to overcome the main obstacles in career development.

The innovative approach introduced by ADVANCE combined training, mentoring, role models and networking activities for career development as well as reflection groups to stimulate the debate. Thus, the project contributed to the objective of the Women and Science Call: supporting or linking initiatives to promote women in decision-making and policy shaping positions (e.g. networking; mentoring in career development; role models; specific training and coaching programmes; fast-track systems).

### Main achievements according to SaS dimensions

The ADVANCE project specifically addressed the **gender and science SaS dimension** by focusing on women scientists’ needs in career development especially at later stages. The project was consistent with a mature concept of the dimension as it supported a European strategy to induce changes in the institutional environments and policy

making concerned with science in the view of fostering gender equality. The project addressed the problems of underrepresentation and inequality in science in both academic and industrial environments. It offered skills and tools for training women scientists with the final aim of helping them overcome the existing career obstacles and reach higher positions in science policy making/ shaping bodies.

The project also contributed to the **open access dimension** as all the resources used- from curriculum to training materials and implementation plans- were made available free of charge to the attendees for use in their organisations. The aim of the project was to allow all consortium members to continue offering the Summer School Program and/or the Mentoring and Coaching Program on the basis of the set "Transfer models".

#### **DISSEMINATION AND ENGAGEMENT ACTIVITIES AIMED AT TRANSFERRING THE PROJECT RESULTS TO WIDER COMMUNITIES**

The main objective of the Dissemination plan was to promote ADVANCE involving the target groups, scientific community and interested parties at local, national and European level from the very beginning of the project. To gain more visibility among relevant institutions, organisations and participants, the plan entailed a wide range of activities and tools: website, leaflet, press activities, presentations, and conferences. Specific objectives of the dissemination activities were to:

- **Raise the awareness** in the scientific community about women researchers' situation in science and research;
- **Inform** female scientists of the ADVANCE activities in order to acquire participants for the tracks;
- **Engage** the community gathering feedbacks from mentees and mentors, participants and policy makers;
- **Promote** the project among partner institutions, other European Universities and industrial research institutions to get a multiplication effect of the project especially within the ENWISE Countries through: local, regional and national authorities, thematically related projects and networks, women communities, private enterprises and research companies, journalists.

The Dissemination plan was periodically updated by means of the activity reports issued every 6 months. The dissemination activities were carried out at EU level by the ADVANCE project consortium and the advisory board while at national level, through both participating and ENWISE countries. The main dissemination means included:

- The **ADVANCE website** ([www.advance-project.eu](http://www.advance-project.eu)) established on the basis of a content management system in October 2006. It served as versatile dissemination tool to inform possible participants of the ADVANCE project folders and to provide information for different audiences. A total of 13.782 website visitors were recorded in 2008 (nearly 30% more than 2006);
- **2.5000 copies of Folders** to inform the community and interested organisations of the projects intention, as well as the detailed plans of the project. Folders were published in hard copy in April 2007 and also distributed in electronic format;
- **24 articles** on ADVANCE besides 7 newsletters and email announcements established to raise attention on the program;
- **16 scientific conferences** where ADVANCE Transfer Models and programs outcomes were presented through **project presentations, posters and papers**. Among those events, the most relevant were: the International Conference "Women in Engineering and Technology research" held in October, 2007 (Paris) where a scientific paper about ADVANCE was presented<sup>21</sup>; ADVANCE participation to the EPWS Annual conference "Women Shaping Science" in June 2008 (Vilnius) with a session dedicated to mentoring across Europe.);
- **ADVANCE final conference 'Supporting Women in scientific careers'** held in Brussels on June 26<sup>th</sup> and 27<sup>th</sup>, 2008. The conference was organised jointly with the FP6 project ENCOUWOMSCI- 'Encouragement to Advance – Training Seminars for Women Scientists' which shared similar objectives with ADVANCE. The conference promoted the transfer of the project further and provided the opportunity to share the project achievements with experts in the field. The conference was advertised Europe-wide through various ENCOUWOMSCI Project channels: Email-Lists, Newsletters, websites and Press Releases. As a result, more than 50 representatives of (European) organisations and universities from 21 countries participated to the conference demonstrating a strong interest in the event. For two days the conference became a market-place of networking, lively discussions and presentations.<sup>22</sup>

The dissemination activities targeted female scientists and researchers within academia and industrial research, universities and research institutions, national and European associations as well as private enterprises and research companies.

<sup>21</sup> "ADVANCE – Advanced Training for Women in Scientific Research; Reviews on an Innovative Concept" was presented by Doris Bammer (DUK).

<sup>22</sup> ADVANCE Publishable Final Activity Report (2008).



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## PROJECT IMPACTS

ADVANCE was expected to have **potential positive impacts** on female scientist career development at personal, organizational and societal levels. At individual level, female scientists would have become aware of and gain skills necessary for career transitions as well as increased independence, power and responsibility. Thanks to the use of "transfer models", the project was supposed to have long-lasting positive impacts on many organisations by providing individuals the opportunity to create their own scientific and career management programs in their institutions. Mentoring and extensive networking experiences among participants were finally planned to activate the personal transfer of knowledge, interdisciplinary scientific collaborations and awareness in the society as a whole. Thus, ADVANCE aimed at providing **profound and sustainable impacts** in the European context. The 6 higher education and research institutions participating in ADVANCE had different size and focus and 4 among them had a high degree of betweenness centrality (top 10%) including 2 which were among the most central organisations in the overall FP network (top 1%). The expertise gained through the participation in other FP projects and contacts with other important organisations increased the probability of successful cooperation and wider impacts. No top level organizations are involved in the project.

Looking at the project implementation, ADVANCE did not only focus on short-term individual career training and mentoring activities but it also attained wider and enduring impacts. At individual level, the project had an **empowering impact** on participants which gained more motivation and self-confidence, learned various professional and management skills, networking skills, and became more conscious of different aspects and demands in scientific careers, including specific challenges women scientists encounter. From a wider perspective, other **actual impacts** could be classified into:

- **Scientific impact:** The ADVANCE project was presented within 16 scientific conferences in order to disseminate the "Transfer Models" and the outcomes of the Coaching and Mentoring Program and the Summer School. There were total 12 items covering this project in the printed press. In addition, there was 1 scientific publication related to the project even if it has not been cited in other scientific works.
- **Social media impacts:** Based on the social media listening buzz results, ADVANCE had a limited social impact (total 3 posts were published), but this is not surprising given the state of social media development at the time of the project implementation (2006-2008).
- **Institutional and organisational impact:** In general participation in the program inspired several participating organisations or individuals to plan, establish or widen mentoring programs in their organisations. Through the program, participating organisations and mentors became more aware of problems women scientists encounter on the one hand and on the other hand of the need to organise systematic career support structures in both pre- and postdoctoral career phase. As a result, several participating organisations started related programs: an institution wide peer mentoring program in IFZ/University of Klagenfurt (AT); long-lasting mentoring relationships in Danube University Krems (AT), further co-operation in University of Utrecht (NL). In the University of Helsinki (FI), participation in ADVANCE speeded up the plans to establish a mentoring program for women researchers in the university which became a key gender equality action by the Equality Committee of the University for the coming years. Similar mentoring programs were planned at the Biocentrum Helsinki and the Finnish Meteorological Institute. As long-lasting impact of the project, the mentees continued to meet in their reflection group also after the formal ending of the mentoring program.
- **Policy impact:** the implementation of the ADVANCE program in the national contexts varied. In Bulgaria, ADVANCE introduced mentoring as a new approach towards career development in one of the largest higher education institutions – Thus, the project had a strong impact at national level. Mentoring was a well-known concept in AT, FI and NL while it was new in the academic and research contexts in Bulgaria and Poland. In Bulgaria, despite some forms of formal and occasional support to young researchers from their senior colleagues existed, there was no mentoring culture intended as systematic, purposeful and long term activity targeting young female scientists.

To achieve long-lasting positive impacts on women scientists' careers and their surroundings, ADVANCE adopted a **bottom-up approach which proved to be** an enabler of success: by improving individual skills and capabilities through coaching and mentoring programs as well as networking activities, women scientists gained chances to reach higher positions and to be involved in decision making and policy shaping. The mentoring experience activated a virtuous circle due to the fact that mentees would have become mentors in the future feeding a mentoring culture. Networking possibilities including junior-senior scientist contacts and the centrality of the project's partners were among the possible factors of success. On the contrary, potential identified obstacles to the participation to training programs were the economic constraints of European researchers and the **poor availability of funding** for such trainings in most research sites or institutions.

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## PATH-BREAKING ADVANCEMENTS

As described in the impact section, several participating organisations initiated mentoring programs as a result of the project. In Bulgaria, ADVANCE introduced mentoring as a new approach towards career development in one of the largest Bulgarian higher education institutions – the South-West University "Neofit Rilski" in Blagoevgrad. Thus, the project had a strong impact at national level. Moreover, in October 2008 the Advance Project won the special-prize for "Gender equality within IT" for the Region of Lower Austria, a prize awarded by the Austrian Minister of Female Affairs and Regional Development.

The innovative aspect of the ADVANCE project was primarily to provide a **multiple gender-sensitive training concept** focusing on relevant topics for women in an academic and industrial contexts as well as gender-related



structures within the scientific community. In addition, to ensure the widest understanding of women scientists' careers and challenges, ADVANCE adopted a **multidisciplinary approach**: a team of female scientists representing the areas of natural/life sciences, pharmacy, engineering, economics and business administration, humanities and the social sciences was engaged in the project. Also the mentors and the trainer team involved in learning experiences, covered a broad spectrum of disciplines. The widest expertise and experiences of the enlarged European Union as well as structural conditions and policies in the different countries were taken into account not only in the mentoring track but also in the curriculum development of the Summer School. Finally, the main factor explaining the success of the program was the **combination of multiple didactic methods** combining lectures, case studies, role games, group discussions, individual mentoring relationships, and possibility for individual and/or group coaching. In particular, the establishment of "Reflection groups" as work method was widely appreciated due to the support provided to the individual mentoring tracks by easing the exchange of ideas and experiences along the process of career development. Mentees were encouraged to directly keep in touch in case of any questions or problems related to the program.

## BEST PRACTICES

The ADVANCE team made many efforts to establish links between the project activities and other projects under FP6. At the EPWS Annual conference "Women Shaping Science" in 2008, the team suggested to hold a specific session on mentoring to highlight the opportunities of different mentoring programmes implemented across Europe. The state of European co-operation in that area was illustrated by presenting and discussing results and sharing experiences of three EU-funded projects aiming to empower women researchers and enhance their careers. Besides ADVANCE, there were:

- EUMENT-NET, European network of mentoring programmes in academia and research (<http://eument-et.gendercampus.ch/>)
- ENCOUWOMSCI, a training programme including international application and career training seminar in which highly qualified women scientists were prepared for appointment and application procedures for professorships in Austria, Belgium, Germany, Netherlands and Switzerland.

The session provided the opportunity to network and to discuss the potential partnerships for future co-operation. Adopting the same approach, coordinators of the EU-projects ENCOUWOMSCI and ADVANCE decided to host together the final conference of their projects identifying strong similarities in the projects' main objectives. Both projects intended to improve the situation of female scientists in the EU and were funded within the 6<sup>th</sup> EU research framework program. The conference offered a platform for networking and discussion about gender and science issues, projects' results and experiences gained through recent seminars and mentoring activities. The aim was to facilitate straightforward information and exchange of good-practice examples between the two projects and to assess the future impact of training activities on women scientists. The cross-thematic collaboration raised the awareness of the need for supporting women in scientific careers as way to enlarge the number of female researchers at national and European level.

## EU ADDED VALUE OF THE PROJECT

ADVANCE provided European added value by promoting a common understanding and increased awareness of the problem of women scientists' underrepresentation in sciences, technology and decision-making bodies. The project supported a European dimension of the training and mentoring of women scientists and the setup of similar programs in other institutions. The development of transfer models was essential to spread the impact and the visibility of such training programs in the participating States and in the society as a whole. As pointed out in the project documentation<sup>23</sup>, the added value of the project lied in the deeper understanding of mentoring as indeed "one of the most effective career supporting measures" beyond country/culture-specific differences.

## PARTICIPANTS AND RESEARCH TEAM

### Participants

Number of participants: 6

Number of countries involved: 5

	Type	Country	Role	Previous participations to FP
Danube University Krems	HES	AT	Coordinator	3
SPOLECZNA WYZSZA SZKOLA PRZEDSIĘBIORCZOŚCI I ZARZĄDZANIA W ŁODZI	HES	PL	Participant	1
IFZ-Interuniversitäres Forschungszentrum für Technik, Arbeit und Kultur, Universität	HES	AT	Participant	1

<sup>23</sup> ADVANCE Process Evaluation Report (2008), page 6.

	Type	Country	Role	Previous participations to FP
Klagenfurt Helsinki Collegium for Advanced Studies, University of Helsinki	HES	FI	Participant	1
University of Utrecht	HES	NL	Participant	72
South-West University "Neofit Rilski"	HES	BG	Participant	1

### Team Composition

Team Size: members\*

GENDER				
Female		Male		Unknown
94%		0		6%
SENIORITY				
Average		Junior		Senior
6%		0		94%
PhD				
No			Yes	
12%			88%	
BACKGROUND				
Applied Sciences	Health Sciences	Humanities & Social Sciences	Natural Sciences	Unknown
5,88%	6%	82%	6%	0

\*The data are based on the analysis of the provided project's Description of Work.

### DELIVERABLES AND PUBLICATIONS

DELIVERABLE NO.	DELIVERABLE NAME	DUE DATE OF DELIVERY (month)	ACTUAL SUBMISSION DATE: (month)
D1a, b	Interim and final report	12, 24	13, 25
D2	Documentation of Preparatory Workshop	04	04
D3	Summer School Curriculum	08	08
D4	Mentoring and Coaching Program	08	09
D5	Detailed Summer School Program	09	09
D6	Mentoring and Coaching Implementation Plan	08	09
D7	Process Evaluation report	24	24
D8	Program Evaluation report	19	19
D9	Transfer Model	22	21
D10	Dissemination Plan (continuously updated)	04	05
D11	Dissemination Website	04	04
D12	Dissemination Folder	04	04
D13	Dissemination Conference Report	23	23

Publications no.	PUBLICATION	LINK (when available)
1.	Gindl M., Zauchner S., Bammer D. (2010). <i>ADVANCE – Advanced Training for Women in Scientific Research: A Review of an Innovative Concept</i> . In Anne-Sophie Godfroy-Genin (Ed.), <i>Women in Engineering and Technology Research – The PROMETEA Conference Proceedings</i> (pp. 427-442.).	<a href="http://193.170.242.194/imperia/md/content/department/imb/forschung/publikationen/gindl_zauchner_bammer_advance_2008_preprint.pdf">http://193.170.242.194/imperia/md/content/department/imb/forschung/publikationen/gindl_zauchner_bammer_advance_2008_preprint.pdf</a>

### MAIN SOURCES

ADVANCE Description of Work (2006).  
 ADVANCE Detailed Summer School Program (2007).  
 ADVANCE Dissemination Plan (2008).  
 ADVANCE Mentoring and Coaching Program including Implementation Plan (2007).  
 ADVANCE Periodic Activity Report, Period 2 (2008).  
 ADVANCE Process Evaluation Report (2008).  
 ADVANCE Publishable Final Activity Report (2008).  
 ADVANCE Transfer Models (2008).



## **EUROPEAN PLATFORM OF WOMEN SCIENTISTS "PLATWOMSCI"**

**Framework Programme: FP6**  
**Action line/Part: PART C: STEPPING UP THE SCIENCE/SOCIETY DIALOGUE AND WOMEN IN SCIENCE**  
**Activity: 4.3.5 Women and science**  
**Area: 4.3.5.1 Stimulating the policy debate at national and regional level and mobilisation of women scientists**  
**Dimension: GENDER AND SCIENCE**  
**Tool: Specific Support Actions**  
**Project Call For Proposal: FP6-2003-SCIENCE-AND-SOCIETY-6**  
**Status: closed**  
**Total cost: 1 988 010**  
**Total EU funding: 1 988 010**  
**Website: <http://epws.org/>**  
**Period: 01/02/2005- 30/04/2008**  
**Subjects:**  
**Project ID and Acronym: ID: 513337, ACRONYM: PLATWOMSCI**

### **BACKGROUND AND CONTEXT OF THE PROJECT AND STRATEGIC NEEDS**

Despite the national and EU-level strategies/initiatives to promote gender equality, European scientific research suffered from the underrepresentation of women scientists in senior positions both in the academia and industrial sector. The limited number of women in scientific boards was also observed in the appointment of decision-making bodies in national research and academic institutions. Monitoring progress towards gender equality in science became a priority of the EU research policy and there was a need for a framework to exchange experiences and good practices as well as to facilitate the cooperation across sciences. Training, networking and awareness raising activities were essential to empower women scientists in their careers and to raise the awareness of their role in the society.

### **SPECIFIC PROJECT OBJECTIVES**

The main objective of PLATWOMSCI was to establish a European Platform of Women Scientists (EPWS),<sup>24</sup> intended to be a structural link between women scientists and policymakers by means of a democratic, inclusive, permanent, sustainable and politically active non-profit making association. In detail, through the project pursued the following objectives:

- To **build an inclusive structure** bringing together networks of women scientists and networks engaged in promoting women scientists, and to involve them in the research policy debate;
- To **develop a sense of ownership** at the grassroots level by providing EU added value support to networks;
- To **represent the needs, concerns, aspirations and interests** of women scientists, in all disciplines and all stages of their career paths, in order to develop a coordinated position on specific issues;
- To **promote the integration of the gender dimension** in all areas of research policy in particular at the European level;
- To **contribute to raise general awareness** of the women in science issue.

The project's specific objectives were relevant for:

- **ERA:** The project contributed to the ERA priority "Gender equality and gender mainstreaming in research" (point 2.4)<sup>25</sup>. To tackle the waste of human resources and the inefficient use of highly skilled women in European research, the platform would have carried out activities to improve the public understanding of science and of its image in society. Thanks to the improved public perception of the scientific field, more young people, and especially young women, would have been attracted to the career in science and technology. By raising women's participation in science and technological development, the project would also have contributed to the strengthening of the ERA.
- **Innovation Union:** the project was intended to contribute to the IU strategic objective of strengthening the innovation and competitiveness in Europe and specifically, to the operational objective "delivering the European Research Area" (point 2.2.). By increasing the participation of women scientists to scientific research and policy making, the Platform would have allowed to use women scientists' full potential and scientific excellence, which were key for ERA and for the establishment of the IU.<sup>26</sup>

<sup>24</sup> Henceforth the European Platform of Women Scientists will be referred to as the Platform or EPWS.

<sup>25</sup> ERA Communication (COM(2012) 392 final).

<sup>26</sup> IU Communication (COM(2010) 546 final).

### SaS/SiS Programme/Activity Lines

The project contributed to the activities related to step up the science/society dialogue and to reinforce and increase the role of women in science and research. More specifically, the project pursued the programme objective to boost gender equality in research, through stimulating the participation of women in science and technological development; and fostering the integration of the gender dimension throughout European research. In fact, PLATWOMSCI intended to establish a European Platform of women scientists, as democratic and inclusive structure bringing together networks of women scientists and other organizations committed to promote gender equality in science, in order to improve the participation of women in scientific research and make their voice heard in the policy process at regional, national and European level. Stimulating structural links within the European Research Area for a more dynamic interaction between scientists, policymakers and society at large was also the guiding principle of the Commission Work Programme for 2003 in the field of science and society. Therefore, the project was extremely relevant for the programme objectives.

### SaS Action Plan

The project was relevant for the SaS Action Plan objective of producing gender equality in science. In detail, the EPWS answered the need for empowering and attaining a better representation of women scientists identified by the Plan. The project specifically implemented Action 24 (Establishing a European platform of women scientists) bringing together networks of women scientists and organisations committed to gender equality in scientific research.

## PROJECT RESULTS AND OUTCOMES

### Main achievements according to Project objectives

As announced in the DoW, the core result of the project was the **establishment of a Platform** representing more than 12.000 women scientists from the following scientific disciplines across Europe: social sciences and humanities, natural sciences and engineering, multi-disciplinary-general. As regards the activities carried out, the Platform performed lobbying and advocacy in four main areas:

- **Networking/membership:** Designed as a "network of networks", the Platform provided opportunities to meet and expand the existing ones. A Network Event took place in Brussels on 20 October 2006 and since then, the EPWS helped its members to find project partners also by providing information and contacts and to set new networks in the field. Twelve international members voluntarily committed to the EPWS Board of Administration and established a constructive collaboration;
- **Research policy development:** the EPWS carried out negotiations of interests with decision-makers to increase the voice of female scientists within the research policy debate at EU level. The EPWS interacted with many EC DGs: a seat in two EC Boards; a seat in the DG EMPL Network of Women in Decision Making; contacts within DG INFSO, DG TREN and DG EAC. In addition, the EPWS was involved as expert at EP events, it drafted reports on the topic of Women in Science and was referred to in the report on Women and Science 2008, which later became a Report of the EP.<sup>27</sup> Finally, the EPWS had contacts with the European Women's Lobby, the Helsinki Group on Women and Science;
- **Information, public relations and knowledge management:** at the end of 2006, the EPWS released a strategy paper to provide an overview on the activities performed;<sup>28</sup>
- **Private and public partnerships:** The EPWS established a structured fundraising strategy for its long term sustainability combining the participation in EU projects with an increased outreach to other funding institutions and organisations. The Platform took part in 5 EU project applications, either as co-contractor or subcontractor within the Science and Society FP6 and FP7 Work Programmes, which increased the participation of women scientists in EU funding opportunities.

As underlined in the final report, the EPWS fulfilled its mission with democratic legitimacy, transparent decision-making structures and in dialogue with national, European and international institutions – acting as a structural link between women scientists of all disciplines and policy makers in Europe. The EPWS also created, managed and continuously updated a database of networks of women scientists. At the end of the project, the database contained contact details of more than 160 networks of women scientists and networks promoting women scientists, representing more than 30.000 scientists.

### Main achievements according to Programme objectives

PLATWOMSCI project outcomes contributed to the expected result of attaining a lively policy debate at national or regional level and an improved understanding of women participation in science. That was possible through the establishment of a European Platform of women scientists. More specifically, the EPWS supported the work of existing national, regional and international networks of women scientists and strengthened civil society structures, with a special focus on the promotion of networking among women scientists in Central Eastern Europe and the Balkan Countries as well as in the private sector. The effort was made in order to increase the voice and participation of women scientists in the European research policy process and in shaping the European research agenda – as project

<sup>27</sup> REPORT on women and science (2007/2206(INI)).

<sup>28</sup> Further details are provided in the Dissemination section.

researchers, leaders, and coordinators, in review and evaluation panels as well as high level expert groups. Thus, the project promoted a better understanding and integration of the gender dimension in science as well as an inclusive, gender-sensitive notions of excellence and innovation by including such concepts into the EPWS mission.

### **Main achievements according to SaS dimensions**

PLATWOMSCI project contributed to the gender and science SaS dimension and thus its objectives and achievements could be framed in the wider discourse analysis. The project was consistent with a more mature concept of the dimension but it kept women participation in science within the focus. First of all, the Platform was established to enhance the participation of women scientists in European research policy, improving the understanding of women scientists' needs and interests. Going forward, the EPWS mandate explicitly included gender mainstreaming as a strategy to support gender equality in the European Research Area and in the institutional settings. The platform also monitored the progress in the development and implementation of gender mainstreaming in science and technology.

### **DISSEMINATION AND ENGAGEMENT ACTIVITIES AIMED AT TRANSFERRING THE PROJECT RESULTS TO WIDER COMMUNITIES**

The activities of the Platform were aimed at the widest dissemination possible of its policy and position papers. The dissemination strategy planned several means: the platform web site; the established EU channels and the ECSITE network to promote the gender dimension in research; press and media contacts; "networking the networks".

Looking at the activities performed, the EPWS information and dissemination strategy focused on the involvement of the members, the Board of Administration and the Secretariat in promoting the Platform and its objectives. The dissemination means included:

- EPWS Web page (<http://epws.org/>), counting around 12.000 visitors per month and containing all the EPWS publications as well as a restricted "members' only area";
- Monthly EPWS newsletters, reaching around 1.500 registered recipients and available on the webpage;
- Media contacts with more than 100 journalists and information/press officers of representative organisations to issue news alerts and press releases which were published on the EPWS web page;
- 6 EPWS Position Papers, 8 policy statements, 5 EPWS replies to public consultations accessible via the EPWS web page;
- Information material (i.e. flyer, posters), policy inputs and surveys (Excellence, European Research Area, Innovation);
- key events: Launch Event, (Brussels, 28/03/06) with 100 participants; the First EPWS Network Event (Brussels, 20/10/06) with 120 participants and over 80 networks from more than 35 countries; EPWS First General Assembly and Standing Committee Meetings (Brussels, 27-28/04/07 with 80 participants from more than 30 countries); the EPWS Annual Conference "Women Shaping Science" (Vilnius, 05-07/06/08) with 160 participants; EPWS Second General Assembly (Vilnius, 06-07/06/08 with 70 participants from more than 25 countries). Other events, such as debates, sessions, and workshops were organised;
- the Platform itself was designed as a network of networks. Thus, networking was performed to raise the awareness of the concept and to empower women scientists throughout Europe.

As for the degree of achievement, all EPWS events attracted an extended audience from many different countries. The four main target groups of the project activities were: the research community (e.g. individual scientists, networks of women scientists, science networks, gender experts, women's groups in science associations); policy makers at national, EU level (including also NGOs); research institutions (e.g. universities, research organisations, enterprises active in research intensive fields or involved in industrial research); media and the general public.

### **PROJECT IMPACTS**

By giving voice to women scientists and ensuring information through the Platform, the PLATWOMSCI project was expected to have wide positive impacts and make increasing numbers of women scientists understand the role they could play in the research policy debate.

Looking at the project participants, the University of Bonn was in the top 1% of the most central organisations in the overall FP network (according to the indicator of betweenness centrality). This good position, together with the experience it gained through the participation in several FP projects and relations with other important organisations further increased the expected **potential impacts**.

The project **actual impacts** could be outlined as follows:

- **Scientific impact:** there were no relevant publications.

- **Social media impacts:** 29 posts were recorded in the Social media listening buzz collection, meaning that the project had an echo and thus raised the interest in social media.<sup>29</sup>
- **Institutional and organisational:** The EPWS continued to exist and to perform its activities beyond the termination of the PLATWOMSCI project phase. After gaining financial and administrative independence (on 1 November 2008), the Platform started a new phase and set itself as important instrument in European research policy. After three years since the establishment, the EPWS gained a new EC grant to perform new tasks (e.g. seminars for EPWS member organisations on network management and funding) but the main challenge consisted in securing its financial sustainability for consolidation. Today the EPWS is an international non-profit organisation that represents the needs, concerns, interests, and aspirations of more than 12.000 women scientists in Europe and beyond and it has more than 100 member networks in 40 countries.
- **Policy impacts:** by helping to build “national nodes”<sup>30</sup> through its members, the EPWS brought advice and expertise to national governments from the perspective of local constituencies of women scientists thus, serving as the “European point of reference” on concerns and interests of women scientists<sup>31</sup>. To ensure complementarity avoiding doublings, “national nodes” and the EPWS established synergies for a coordinated influence of women and science policies at national level (e.g. the Center of Excellence Women in Science CEWS in Bonn, Germany, and Zeny a Veda, the National Contact Centre – Women & Science in Prague, Czech Republic). The EPWS also supported the setting up of several new networks: NEWS – Network of Ethnicity and Women Scientists (BE), LaWise – Latvian Women in Science (LT), BASNET Forum-The Baltic States Network for Women in Science and High Technology (Baltic countries) and inspired and encouraged the participating partners of EU projects such as PROMETEA and EUMENT-NET to organise themselves into registered associations. The future existence of EPWS beyond the PLATWOMSCI project phase ensured that all knowledge gathered during the project phase was not only further disseminated but also used as base for further elaboration.

As mentioned above, securing the long-term financial sustainability is the biggest challenge for the survival of the Platform in the future and for the attainment of its long-term wider impacts. In fact, it has difficulty in retrieving funding for the running costs, given that is now an independent organisation and the grants by public or private institutions are devoted only to projects. At the same time, no high membership fees could be raised.

### PATH-BREAKING ADVANCEMENTS

Compared to the other fellow institutions in the research landscape, the Platform brought an inclusive, gender sensitive notion of excellence so as to open chances to young researchers and to researchers with non-traditional research careers. The EPWS applied an innovative **principle of inclusivity** to involve a community of researchers much larger than women scientists and gender researchers, encouraging the widest heterogeneity in research. The innovation issue (both in terms of social processes and production) became a thematic priority for the EPWS in 2008 to explore the role of women scientists in stimulating a more innovative Europe.

### BEST PRACTICES

The first EPWS Annual Conference “Women Shaping Science” was organised in collaboration with another EU-funded network, BASNET – The Baltic States Network for Women in Science and High Technology. Since 2006, as an EPWS member, BASNET tried to establish a coordinated initiative in the Baltic States to achieve a coordinated influence on women and science policies at interregional level, as well as to impact on the policies of the three Baltic countries. In addition, the EPWS became progressively a privileged and popular potential partner with regard to calls related to women scientists and the gender dimension in science within the Science and Society Work Programmes.

### EU ADDED VALUE OF THE PROJECT

As reported in the project final report, the Platform provided EU added value in achieving the EU’s goals of increasing the participation of women in research: it gave women scientists a voice in the European research policy. The structural links established between women scientists and policy makers at national and EU level through the EPWS allowed a two-direction information flow: from the wider research community (e.g. individual scientists, gender experts, research networks) to Institutions, universities and industry. The network complemented national efforts in avoiding stifling diversity in research and in working for the promotion of equal opportunities in the research fields of all scientific disciplines.

### PARTICIPANTS AND RESEARCH TEAM

#### Participants

<sup>29</sup> The observation period covered from 23/05/2008 to 23/05/2010.

<sup>30</sup> The “national nodes” were institutions identified for the coordination of women and science activities and part of the EPWS structure. Such nodes served as effective channels to involve women scientists more actively in shaping the policy debate at national, regional and EU levels.

<sup>31</sup> As pointed out in the final report.



Number of participants: 3

Number of countries involved: 2

	Type	Country	Role	Previous participations to FP
ARBEITSGEMEINSCHAFT SOZIALWISSENSCHAFTLICHER INSTITUTE	OTH	DE	Coordinator	1
EUROPEAN PLATFORM OF WOMEN SCIENTISTS	N/A	BE	Participant	1
UNIVERSITY OF BONN, CENTER OF EXCELLENCE WOMEN AND SCIENCE	HES	DE	Participant	1

### Team Composition

Team Size: members\*

GENDER				
Female		Male		Unknown
100,0%		0,0%		0,0%
SENIORITY				
Average		Junior		Senior
0,0%		0,0%		100,0%
PHD				
No			Yes	
54,0%			46,0%	
BACKGROUND				
Applied Sciences	Health Sciences	Humanities & Social Sciences	Natural Sciences	Unknown
0,0%	23,0%	54,0%	15,0%	0,0%

\*The data are based on the analysis of the provided project's Description of Work.

### DELIVERABLES AND PUBLICATIONS

DELIVERABLE NO.	DELIVERABLE NAME	DUE DATE OF DELIVERY (month)	ACTUAL SUBMISSION DATE: (month)
D1	provisional office established	M0	
D2	1st Founding Board meeting	M2	
D3	recruitment of Secretary General	M5	
D4	recruitment of Fund Raiser/Finance Officer	M5	
D5	2nd Founding Board meeting	M6	
D6	move to permanent headquarters	M5	
D7	1st General Assembly	M8	
D8	recruitment of additional staff	M7	
D9	General Secretary basic strategy paper	M6	
D10	Fund Raiser general strategy paper	M6	
D11	design of Electronic Platform	M8	
D12	implementation of electronic platform	M10	
D13	policy paper on reinforcing network structures	M9	
D14	strategy paper on "national nodes"	M9	
D15	strategy paper about research for, by and about women	M11	
D16	concept for the implementation of a meta-database at the Platform	M16	
D17	information and dissemination strategy paper	M9	
D18	strategy paper for women in industrial research	M16	
D19	inventory of Commission funding possibilities	M14	
D20	implementation plan for the accession of funds	M24	
D21	2nd General Assembly	M20	
D22	1st report	M6	
D23	2nd report	M16	

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<i>DELIVERABLE NO.</i>	<i>DELIVERABLE NAME</i>	<i>DUE DATE OF DELIVERY (month)</i>	<i>ACTUAL SUBMISSION DATE: (month)</i>
<i>D24</i>	<i>3rd report</i>	<i>M27</i>	
<i>D24</i>	<i>Final Report, including use and dissemination of knowledge</i>	<i>M27</i>	

**MAIN SOURCES**

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Technical Annex –Description of the Work (2004)  
PLATWOMSCI Final Activities Report (2009)  
Science and Society Reporting Questionnaire (2005)  
Information and Dissemination Strategy Paper (2007)

## Gender and Science: Science in Society

## **14<sup>TH</sup> INTERNATIONAL CONFERENCE OF WOMEN ENGINEERS AND SCIENTISTS "A CHANGING WORLD: NEW OPPORTUNITIES FOR WOMEN ENGINEERS AND SCIENTISTS"- "ICWES14"**

**Framework Programme: FP7**

**Action line/Part: 5.2 Strengthening potential, broadening horizons**

**Activity: 5.2.1 Gender and Research**

**Area: -**

**Dimension: GENDER AND SCIENCE**

**Tool: Coordination and support action**

**Project Call For Proposal: FP7-Adhoc-2007-13**

**Status: Closed**

**Total cost: € 593 750.00**

**Total EU funding: € 100 000.00**

**Website: Website no longer available**

**Period: 01/09/2007 - 31/08/2008**

**Subjects: Scientific Research - Social Aspects**

**Project ID and Acronym: ID: 221902, ACRONYM: ICWES14**

### **BACKGROUND AND CONTEXT OF THE PROJECT AND STRATEGIC NEEDS**

ICWES Conferences are the principal events of the International Network of Women Engineers and Scientists (INWES). Every three years, engineers and scientists from all over the world gather to enjoy the opportunity of exchanging information on academic, industrial, small and medium-sized enterprise research. The funded conference, ICWES 14, included scientific and technical presentations as well as sessions on gender and methods to improve the position of women in Science, Technology, Engineering and Mathematics (STEM). The theme of the conference, "**A changing world: new opportunities for women engineers and scientists**", was an opportunity for all participants to exchange scientific and multidisciplinary skills as well as the best methods. The conferences took place in Lille (France) from July 15th, 2008 to July 18th, 2008, with two strategic partners: the DG Research of the European Commission and the Nord-Pas de Calais Regional Council.

ICWES 14 was organised by the CNISF (Conseil National des Ingénieurs et Scientifiques de France), in partnership with the CNRS - National Centre for Scientific Research - (Mission pour la Place des Femmes au CNRS) and European associations of Women engineers and scientists:

- In France with FI - Association Française des Femmes Ingénieurs, F&S – Femmes et Sciences, F&M – Femmes et Mathématiques,
- In Germany with DIB (deutscher ingenieurinnen bund e.v)
- In the United Kingdom with WES (Women's Engineering Society).

The program was built in such a way so that by everyone was contributing to the sessions: plenary lectures, oral presentations, posters. The official language was English, in all kind of session and printed material. The main topics were: the impact of science on sustainable development both technologically and on the human side, promoting science education for girls in schools, developing women networks and diversity, giving a greatest insight into European-based activities of women in engineering and science which will be presented in a specific forum.

### **SPECIFIC PROJECT OBJECTIVES**

The main objectives of the ICWES conferences were:

- To encourage women scientists and engineers from all over the world to **meet and share their researches and experiences in order to work out an international vision** of them to everyone's benefit;
- To **disseminate and strengthen the role of women engineers and scientists** in society by their contribution to the cultural change in professional or academic research environment.

This event also wanted to benefit to all European women in STEM in order to reinforce their position in research community, in the academic and in the private careers. To achieve this, the audience expected was 700 women engineers and scientists from 50 countries.

Promoting gender equality in science in the ERA was a guiding principle in the Commission work programme of 2006 in the field of 'Science and Society'. The project ICWES14 was concordant with the Science in Society objective 'to boost gender equality in research, through stimulating the participation of women in science and technological development; and fostering the integration of the gender dimension throughout European research.

Gender equality has been one of the priorities of a "Reinforced European Research Area Partnership for Excellence and Growth" (ERA) since 2012. It is feasible by removing barriers to the recruitment, retention and career progression of female researchers, address gender balance in decision making and strengthen the gender dimension in research programmes. The objectives of ICWES14 are relevant for this goal since the project aims at promoting the role of scientific and engineer women, and inspiring them to meet and share their research projects.

Moreover, the objectives of the ICWES are supporting **Innovation Union** Commitment 1 of putting in place national strategies to train enough researchers where "gender and dual career considerations should be fully taken into account in these strategies." In particular, through involvement of over 500 participants in the conference and establishing networks for further promotion of issues related to women in science the project supports mainstreaming of the gender and women in science considerations.

### SaS/SiS Programme objectives/Activity lines

By disseminating and strengthening the role of women engineers and scientists, the conference was related to the following SaS/SiS Programme activity lines:

- To boost gender equality in research, through stimulating the participation of women in science and technological development.
- To foster the integration of the gender dimension throughout European Research through gender mainstreaming and specific activities for the promotion of women researchers and gender equality in European Research.
- To raise the awareness within the scientific community, in the general public and among policy makers.

### SaS Action Plan

The ICWES14 project contributed to the following target set out in the Science and Society Action Plan: Action 27 Promote gender equality in science in the wider Europe.

## PROJECT RESULTS AND OUTCOMES

### Main achievements according to Project objectives

- Attendees came from 60 countries, scattered over 5 continents. An overall of 500 women and a few men participated with over 50% participants coming from EU countries (230 persons came from 21 European countries).
- Diversified scientific program resulting in a high quality and richness of the conference:
  - 130 oral sessions, 11 plenary lectures, 50 posters (accepted abstracts)
  - Variety of topics covered: sustainable development and civil society, climate change, innovation management in big companies, the direct impact of new economy and TIC on the environment of women's workplace.
  - Organised Youth forum, and the high profile round table on "Inspirational Role Model" with outstanding women role models such as: Claudie Haigneré (scientist, first French female astronaut, politician), Valérie Manning (EADS Vice President), etc.
- The 500 women promised to gather again in Adelaide (Australia) in 2011 for ICWES15 to measure the work progress in their own countries.
- In order to support them, INWES decided to put in place regional networks on the 5 continents to work more closely with them on issues related to "the new opportunities for women engineers and scientists in a changing world".
- 80 volunteer students were mobilised to work on the major tasks of the logistic and administrative work package on site.
- Moreover, the program was built with the contribution of each participant submitting papers to the sessions: plenary lectures, oral presentation, posters.

### Main achievements according to Programme objectives

**Bringing together women scientists from different countries and reflecting about their role in science and society** can also be seen as an effective means to strengthen their own image as possible role models for students and young scientists. This is a **link to some of the objectives of the Work Programme**<sup>32</sup>, specifically such as: *increased gender awareness in Community scientific research policy and programmes through gender mainstreaming and enhanced empowerment of women in science.*

The project also addressed the specific objective of "**boosting gender equality in research**, through stimulating the participation of women in science and technological development; and fostering the integration of the gender dimension throughout European research"<sup>33</sup>. Most specifically, the proposal addressed another objective, which is **stimulating the policy debate at national and regional level and the mobilisation of women scientists**. ICWES14 achieved it with the other important features of the conference: a formal roundtable to meet "Inspirational Role Model", and the opportunity to learn more about mentoring.

<sup>32</sup> The European Commission: Work Programme: 2004, Science & Society, Version January 2004

<sup>33</sup> FP7

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### Main achievements according to SiS dimensions

ICWES14 contributed to **Gender and Science** SIS-SaS dimension in a limited form. In line with the main objectives of recent EU intervention identified in the Gender discourse such as integration of women in all areas, eliminate barriers for women and, in particular, taking into account their needs and interests, ICWES14 promoted the concept of increasing women participation in science. It can be argued that through establishment of the regional support networks on 5 continents, involvement of high-profile women role models and coordinated dissemination effort the project increased the awareness of the concept of gender equality in science and contributed to the goals of dimension Gender and Science.

The project achieved value-added support to women scientists and engineers, empowering them to reinforce their position in the research community, in the academic and in the private careers.

### DISSEMINATION AND ENGAGEMENT ACTIVITIES AIMED AT TRANSFERRING THE PROJECT RESULTS TO WIDER COMMUNITIES

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For effective dissemination and engagement, a variety of activities has been implemented:

- **Printed materials:**
  - Visuals: A graphic chart with a logo were put in place.
  - A 4 pages insert was created to attract potential sponsors/supports for the conference
  - A poster was done for dissemination purpose in different networks
  - 1st flyer announcement and sponsors' flyers
  - a "press kit" for the use of the press conference and during the conference
  - At the European level, the partners used documents produced in English, translated them in their language if necessary, and dispatched them in their network (Eastern European countries were informed in German)
- **IT and Website:**
  - The website was divided in two parts. The public side was addressed to the future participants, with a participant kit (booklet and CD). The private side, called collaborative platform, was addressed to the organizing committee.
  - The call for abstract and the registration form were implemented on the website.
  - The website was updated with pictures and awards after the conference to make the career of scientist and engineer women more visible. The website was maintained one more year after the end of the project.
- **Emailing campaign:**
  - Mass emailing was used to inform the future attendees at each step of progress of the project (pre-registration, call for abstract, registration, etc.) and to dispatch the information among the networks of the European partners and the INWES network.
- **Mass media and Publications:** A professional agency supported the project's presence in the press and media. All of the tools were used:
  - A "press kit" for the use of the press conference and during the conference
  - 7 "press releases" in French and English at specific period to be disseminated to media by the press agency and to future participants by the website and adapted to different target (regional press, feminine, scientific, etc.)
  - Interviews with role models (see roundtable) were performed on the radio and television
- **Articles published in newspapers or magazines**
- **Workshops and Conferences:**
  - The press conference given before the opening ceremony was a good support for newspapers at national and regional levels. Journalists interviewed role model engineers from all over the world with repercussions in online and written press, radio, and TV.
  - Organisers took part in relevant events in relation with the theme of the conference on Women and Science. Each time, a significant amount of flyers and presentations were distributed.

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### PROJECT IMPACTS

#### Potential impact

The "Conseil National Des Ingénieurs Et Des Scientifiques De France" was the only association involved in the project, and is not considered as a "central" in the FP6 & FP7 network. As this is an overarching association, it is not considered in the Leiden ranking of Universities or in the EU Industrial R&D Investment Scoreboard Ranking. However, it counts more than 180 associations of engineering schools' graduates, 200 000 researchers and around 30 associations of

scientists and engineers. Therefore, the scientific impact it exercises is through the strength of its members. With over 200 000 researchers in the network, it has a great potential for the diffusion of the information of the project in the scientific world.

### Actual impact

- **Scientific impact:** No scientific publication related to the project has been released. This is consistent with the aim of the project, which is more operative than scientific: the project aims to exchange scientific and multidisciplinary skills as well as the best methods.
- **Social impacts:** Concerning the social media listening, the project did not produce any relevant buzz results (no posts on social media have been detected within 2 years after the end of the project).
- **Institutional and organisational impact:** As a result of the conference INWES decided to put in place regional networks on the 5 continents to work more closely with women scientists on issues related to "the new opportunities for women engineers and scientists in a changing world".

### BEST PRACTICES

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An example of the best practice is the organisation of the conference in cooperation with the CNRS - National Centre for Scientific Research - (Mission pour La Place des Femmes au CNRS) and European associations of Women engineers and scientists:

- In France with FI - Association Française des Femmes Ingénieurs, F&S – Femmes et Sciences, F&M – Femmes et Mathématiques,
- In Germany with DIB (Deutscher Ingenieurinnen Bund e.v),
- In the United Kingdom with WES (Women's Engineering Society).

Concerning international cooperation, the exchange of know-how between ICWES14 chair and Canadian and Korean colleagues through participation in the conference can be considered an example of the best practice.

### PATH-BREAKING ADVANCEMENTS

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None.

### EU ADDED VALUE OF THE PROJECT

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The project benefited from the knowhow and the exposure brought by the European Commission. Johannes Klumpers, Head of the scientific culture and gender issues unit, presented also the view of the European Commission on the situation of women in science during the round tables.

### DELIVERABLES AND PUBLICATIONS

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#### Deliverables

DELIVERABLE NO.	DELIVERABLE NAME	DUE DATE OF DELIVERY (month)	ACTUAL SUBMISSION DATE: (month)
D1.1	Composition committees	1	1
D1.2	Minutes meetings of Partnership committee	11	11
D2.1	All materials produced before M1	1	1
D2.2	Poster of the conference	2	2
D2.3	Sponsoring material	3	3
D4.1	Guidelines submission of abstracts	2	2
D4.2	Final and detailed programme	8	8
D6.1	Dissemination package	10	10
D6.2	Programme of attended conference	5	/
MS1	Deadline for the call of abstracts	5	5
MS2	Registration procedure available	7	7



<i>DELIVERABLE NO.</i>	<i>DELIVERABLE NAME</i>	<i>DUE DATE OF DELIVERY (month)</i>	<i>ACTUAL SUBMISSION DATE: (month)</i>
<i>MS3</i>	<i>Deadline of abstracts acceptance</i>	<i>7</i>	<i>7</i>
<i>MS4</i>	<i>End of production of the CD proceedings</i>	<i>9</i>	<i>9</i>

### **Related publications**

Conference report (not accessible for free): <http://www.emeraldinsight.com/doi/abs/10.1108/02610150910933668#>

The sole publication is the CD of all abstracts presented in the program and dispatched to each participant in the package. The dissemination of that CD support can be also used again in next events related to the same issues. 500 items were distributed.

### **MAIN SOURCES**

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eCORDA  
CORDIS database  
OPENAIRE database  
Project deliverables  
Project's description of work  
<http://www.open-evidence.com/sis-sas/fiche/221902.html>

## **GENDER DEBATE IN THE EUROPEAN RESEARCH AREA "GENDERA"**

**Framework Programme: FP7**  
**Action line/Part: 5.2. Strengthening potential, broadening horizons**  
**Activity: 5.2.1. Gender and research**  
**Area: 5.2.1.1. Strengthening the role of women in scientific research and scientific decision-making**  
**Dimension: Gender and Science**  
**Tool: Coordination and support action**  
**Project Call For Proposal: FP7-SCIENCE-IN-SOCIETY-2009-1**  
**Status: Ongoing**  
**Total cost: € 1 030 585.00**  
**Total EU funding: € 798 666.00**  
**Website: [www.gendera.eu](http://www.gendera.eu)**  
**Period: 01/11/2009 – 30/04/2012**  
**Subjects: Research ethics; Scientific Research; Social Aspects**  
**Project ID and Acronym: ID: 244499, ACRONYM: GENDERA**

### **BACKGROUND AND CONTEXT OF THE PROJECT AND STRATEGIC NEEDS**

Detailed observations show that equality policy recently is moving away from the emphasis on "fixing the women" to "fixing the system" as expressed by Londa Schiebinger. This new strategy leads to a change in working methods at all levels. The Gender Debate in the European Research Area (GENDERA) project was designed by a consortium of nine partners of quite heterogeneous European countries and one associated country. It aimed to bring together and discuss experiences in the practical realization of gender equality in research organizations, like universities, research institutes, national academies and private organizations with **the overall objective** to:

- Facilitate the implementation of gender balance in science and research and
- Create an enabling environment to integrate the gender dimension into science policy throughout Europe.

Experiences in gender equality policies in research organizations in the higher education sector, the government sector and the business enterprise sector were collected, systematized and analysed.

The consortium was wide to cover all aspects of the issue of gender balance policies in research and higher education institutions (public and private organisations active in the field of research including social sciences and humanities).

### **SPECIFIC PROJECT OBJECTIVES**

The **project's goals** were to:

- Boost the awareness to promote the role of women in science
- Contribute to strengthening the role of women in scientific research in specific disciplines and in scientific decision making positions, and to commit top governmental and institutional decision makers and policy makers to advance the current situation on gender balance in research positions.

Promoting gender equality in science in the ERA was a guiding principle in the Commission work programme of 2006 in the field of 'Science and Society'. The project GENDERA was concordant with the Science & Society Action Plan and its objective 'to boost gender equality in research, through stimulating the participation of women in science and technological development; and fostering the integration of the gender dimension throughout European research'.

The above goals were achieved through the following **specific objectives**:

- **Data collection - collection and analysis of experiences in gender equality policies** and activities on gender balance in different research organisations (from the higher education sector, the government sector and the business enterprise sector)
- **Identification of best practices** for the empowerment of women to get on the top of research organisations and scientific committees, as well as the factors limiting the participation of women (with special regard to the conditions of recruitment and career development)
- Organisation of events (workshops, national forums and a European conference) with the aim **to raise and maintain the attention of the authorities and high-level policy makers** and increase the participation of women at the highest levels of research.
- Building a sustainable international network of experts from all relevant stakeholder bodies by the end of the project which can be sustained after the completion of the Project.

The project wanted to have a direct impact:

- In 8 EU member states and an Associated Country
- On a wider European level
- On the private sector - by using the existing contacts of the project participants, especially the SME NCPs (SEZ and APRE) and the organisations close to the business enterprise sector (JR).

Special attention was paid to the proportional representation of both sexes among the lecturers and the participants of events, and – if possible – the 40% minimum of each sexes wanted to be kept.

### **SaS/SiS Programme objectives/Activity Lines**

Experiences in gender equality policies in research organizations in the higher education sector, the government sector and the business enterprise sector were collected, systematized and analysed. Thus, GENDERA project addressed following SaS/SiS Activity lines:

- To foster the integration of the gender dimension throughout European Research through gender mainstreaming and specific activities for the promotion of women researchers and gender equality in European Research.
- To raise the awareness within the scientific community, in the general public and among policy makers.
- To Benchmark and monitor.

### **SaS Action Plan**

The project aimed at facilitating the implementation of gender balance in science and research, and creating an enabling environment to integrate the gender dimension into science policy throughout Europe. Thus, was related to the following action of SaS Action Plan: Action 27 Promote gender equality in science in the wider Europe, and Action 28 Ensure co-ordination of prospective activity at the European level.

## **PROJECT RESULTS AND OUTCOMES**

### **Project objectives**

**A GENDERA Task Force** was formed for each country. The partners have managed to achieve impressive profiles of their National Task Forces, **involving the major players in their countries.**

The number of the Task Force members per country was the following:

- Hungary:17;
- Spain: 10;
- Greece: 6;
- Slovenia: 12;
- Slovak Republic: 8;
- Austria: 20;
- Germany: 20;
- Italy: 19;
- Israel: 12.

These numbers may have changed during the duration of the project.

Most partners have involved the established national Task Force members in shaping the workshop program inviting them to take an **active role in the workshop** and **contribute to writing the national recommendations:**

- Hungary: the national Task Force approved the National Recommendations for an action plan supporting scientific life (published after the event in 300 copies).
- Slovakia: the Task Force agreed on the text to be included in the National Recommendations for Action
- Israel: the Task Force proved most important for dissemination and reaching decision makers, but it was hardly instrumental in setting up events and reaching a joint decision about the action plan.

GENDERA has:

- Sent more than 170 invitations to stakeholders in 9 countries to engage within task force activities
- Organised more than 25 task force meetings
- Organised 12 national workshops with 270 participants

The final **European conference** achieved broad participation:

- 29 speakers from 16 countries participated.
- 116 participants from 23 countries were present
- 85% of participants were female.

The offered a platform for networking, the exchange of good/best practice in gender equality in research between relevant stakeholders including task force members, representatives from European bodies including the European Commission, the European Parliament, European Platform of Women Scientists, European Centre for Women and Technology from Europe as well as experts from outside of Europe.

## Related publications:

- The Synthesis Report introduced the best examples for the improvement of gender balance identified by the consortium.
- Guidelines about recommendations and tools for gender balance policies were compiled in a non-scientific language. The guidelines are addressed to top-level stakeholders who were identified in WP2 and management level of research or funding organisations. The guide was written in English and translated to the languages of the project partners: Spanish, Italian, Hebrew, English, German, Slovak, Slovenian and Greek. Additionally to the common version of the guidelines, each partner added some pages on specific information and/or data of his/her country.
- The final public document that was created by the GENDERA project was the Policy Brief. The clear, concise and short document will be used by partners (after approval by the European Commission) to stimulate future discussions even after the project's conclusion.

**Main achievements according to Programme objectives**

The Seventh Framework Programme demands active promotion of the role of women in scientific research. The objective is "to boost gender equality in research, through stimulating the participation of women in science and technological development; and fostering the integration of the gender dimension throughout European Research". Most specifically, the project addressed another Programme objective: stimulating the policy debate at national and regional level. As a result, the project increased gender awareness in Community scientific research policy and programmes through gender mainstreaming and enhanced empowerment of women in science.

**Main achievements according to SiS dimensions**

The project was related to the Gender and Science SIS SaS dimension. The main objectives of recent EU intervention in the Gender discourse are to:

- Integrate women in all areas
- Eliminate barriers for women
- Take into account their needs and interests

The project achieved value-added support to women scientists. GENDERA believed that introducing the best practices with regard to policies and implementation activities related to gender balance in different EU countries to an expert audience and relevant stakeholders (policy makers, leading ministry representatives, top institutional decision makers and their networks, research managers) could contribute to **improvements in the representation of women in science**, especially in specific fields, in leading positions and in higher decision making bodies, and thus increase their possibility to make their voices heard on the national and European level.

**DISSEMINATION AND ENGAGEMENT ACTIVITIES AIMED AT TRANSFERRING THE PROJECT RESULTS TO WIDER COMMUNITIES**

The projects conducted the foreseen dissemination activities.

- **Printed materials:**
  - A flyer in English, in printed and electronic versions, was used for inviting stakeholders to join the individual task forces as well as being actively disseminated in existing networks.
  - An **invitation letter** was prepared by each Project partner for the national Task Force based on the common structure.
  - **Synthesis reports** have been prepared /published
  - The **GENDERA Guidelines** were produced in nine languages and distributed at specific events and through different ways:
    - Hungary: meetings and events related to the women and science issue
    - Germany: SEZ events for industry, SMEs and universities.
    - Slovakia: national conference and distributed to various stakeholders: sent to rectors of all Slovak universities, institutes of Slovak Academy of Sciences, Ministry of Education, Ministry of Labour, Social Affairs and Family
    - Italy: APRE's monthly newsletter, website, weekly alert, and among APRE's members and database
    - Spain: through CIREM's website and national contacts
    - Austria: Task Force Members
    - Greece: workshops
    - Israel: workshops
- **IT & Website:**

- **Interactive website** was designed and implemented. It included information about the project and the partners, project progress updates and complementary studies, events, statistics that would be useful to a broad community. A major element of the website was the **interactive and searchable database of good practices**.
- **Interlinking with other websites** was done: the websites of each host organisation, swapping links with other closely connected projects, LinkedIn.
- **Mass media & Publications:**
  - A brand was created for the Project
  - All activities were accompanied by the **publication of press releases**, articles etc. regarding the main project outcomes and results.
  - Partners actively engaged with the media and not only produced their own news releases (i.e. project launch, launch of the good practice database, event launches), but had **articles published in the popular press, target group media and scientific papers**.
  - **The project was featured in a video for the Euronews Webchannel** (<http://www.euronews.com/2012/03/07/breaking-science-s-gender-barrier/>).
- **Workshops/Conferences:**
  - 12 national workshops organised by GENERA
  - Events and meetings organised by partners
  - The international roundtable in Bratislava was organised
  - The final European conference took place in Stuttgart
- **Events where communication materials were distributed:**
  - **Gender and ethics in research in science and technology workshop** organized by the Directorate for Equality of the University of the Basque Country (UPV / EHU) (23/09/?) in Leioa (Vizcaya).
  - **National workshop on Scientific Innovations and the Gender Perspective** (12-13/04/2012 in Madrid.)
  - **FEMtech Networking Event** (29/11/2010) Around 80 to 100 copies of the Project Leaflet and Guidelines were distributed each.
  - **Conference "Gender Paradoxes in Changing Academic and Scientific Organisation(s)"** (20-21/10/2011) in Örebro, Sweden
  - **Meeting of National Network** for promoting research values for youth
  - **Events promoting women in science** (24/01/2012 & 27/03/2012) organised by the Slovenian national project SM-RIS.
  - **Consultation/conference on Women on leading positions in higher education in Slovenia** (11/04/2012) organized by the Slovenian Academy of Science and Arts.

## PROJECT IMPACTS

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### Potential impact

WP3 had three main lines of potential impact, following the work package tasks. One related to forming National Task Force by each partner, where the potential impact is via the Task Force Members that were informed on the GENERA activities and collaborated in some of them. As the members were selected mainly as decision making representatives of government and academia, we expect that their involvement with GENERA not only contributed to the quality and dissemination of the project results but also to raising awareness during and after the project via professional and personal communication of the Task force Members.

The second line of potential impact relates to the organization of national events presenting GENERA related content and attracting various participants. The events were also widely promoted on national level, in two cases the event was also video recorded with the recordings made publicly available from the GENERA website.

The third line of potential impact relates to the national action plan with recommendations that each partner has provided. The recommendations were shaped based on the discussions with the Task Force Members during the project, the discussions at the GENERA national events, and in many cases the recommendations were also discussed at the national event. Furthermore, the partners have distributed the recommendations in some form at the national level.

The project was able to involve very central organisations that participated to a lot of projects with other organisations which participated very frequently to the FPs.

The most central (top 1% of the most central organisations in the overall FP network) were the Institut Jozef Stefan, JOANNEUM RESEARCH Forschungsgesellschaft, and Steinbeis Innovation gGmbH. Then came, in the top 5%, the

Agenzia per la Promozione della Ricerca Europea, Bay Zoltán Alkalmazott Kutatási Közhasznú Nonprofit, and the National Hellenic Research Foundation. They all have the capacity to diffuse and spread information and knowledge, which means that the study's results were more likely to be diffused.

The other participating organisations were the Fundació Centre d'Iniciatives i Recerques Europees a la Mediterrània (CIREM), Ort Braude College, and the Univerzita Mateja Bela v Banskej Bystrici. They are peripheral, which means their impact might be less important than the ones described earlier.

None of the participating universities were highly ranked in the Leiden ranking.

Actual impacts as resulting from the project documents, can be clustered into four types:

- **Scientific impact:** No scientific publication related to the project has been released. However, the project was able to involve very central organisations that participated to a lot of projects. The most central (top 1%) were the Institut Jozef Stefan, JOANNEUM RESEARCH Forschungsgesellschaft, and Steinbeis Innovation gGmbH. Then came in the top 5% the Agenzia per la Promozione della Ricerca Europea, Bay Zoltán Alkalmazott Kutatási Közhasznú Nonprofit, and the National Hellenic Research Foundation. They all have the capacity to diffuse and spread information and knowledge, which means that the study's results were more likely to be diffused.
- **Social media impact:** Concerning the social media listening, the project did not produce any relevant buzz results (no posts on social media have been detected within 2 years after the end of the project). However, as already pointed out in the "dissemination and engagement activities" chapter, the project participated to many events organized by scientific organisations. For example, SEZ is the EU-Contact Point for Universities in Baden-Württemberg and the Director, Prof. Norbert Höptner (who is also the European Commissioner to the Minister of Economics of Baden-Württemberg) took copies of the guidelines to relevant meetings with important stakeholders in the region.
- **Institutional and organisational impact:** The project partners interacted with other EU projects, European Commission institutions, the European Parliament as well as relevant stakeholders at the regional and national level. Each country had the opportunity through the project to contact and build networks with the relevant players in their country/region to start effecting change in mind-set and practice. The European GENDERA conference offered a platform for networking, exchange of good/best practice in gender equality in research and was visited by relevant stakeholders including Task Forces' members, representatives from European bodies including the European Commission, the European Parliament, from Europe as well as experts from outside of Europe.
- **Policy impact**
  - At the end of the dialogue after 30 months, a policy brief with recommendations from the project was created and disseminated to policy makers and stakeholders.
  - The policy brief finalised at the end of the project was to be used after the end of the project as a concise and powerful overview of the project's findings. It took into consideration the experience made within the different partners in different regions of Europe and could be used in future discussions surrounding research policy in Europe by any stakeholder.
  - Gender policy experts from countries from or outside of the EU were invited to widen the "offer" of possible solutions and share experiences. Based on the discussions' results, the main national problems related to gender equality in research were identified. Suggestions and exact recommendations to improve the local situation of gender balance in research positions - with special regard to recruitment and career development - were prepared with the active support of the Task Force members.
  - The factors limiting the participation of women (with special regard to the conditions of recruitment and career development) were identified and discussed with top policy and decision makers and other stakeholders at national and European level.

## PATH-BREAKING ADVANCEMENTS

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None.

## BEST PRACTICES

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The way the awareness and dissemination activities have been performed by project partners is an example of best practice. The online tools created throughout the project can continue to be used in order to further call and effect change in the regions. The results for exploitation include the website and the good practice database that remained online for at least one year after the project end date.

- The Internet platform offered a perfect opportunity for referencing the findings of the project. It included the guidelines in nine languages which could be downloaded as long as the website was online by anyone interested in finding out what to expect (support and challenges) when trying to implement change in their (research) organisation.
- The searchable database was also a highlight that remained valuable as tangible examples could assist those considering implementing a programme or projecting in their institution.

Another example of best practice is the engagement and awareness building of the importance of gender balance in science and research by effective involvement of the main players in debates on the national level through the

establishment of 3 national Task Forces, organization of the national workshops and preparation of the national action plans.

- In order to identify main players and establish the national Task Forces, the partners identified and approached the relevant top policy/decision makers and high-level representatives of public and private higher education and R & D organisations, as well as leaders of the formers' representative bodies.
- The national workshops encouraged discussions on the national level in all partner countries.
- In some cases, gender policy experts from countries from or outside of the EU were invited to widen the "offer" of possible solutions and share experiences.

## EU ADDED VALUE OF THE PROJECT

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Besides available literature and data, GENDERA capitalised on the results of still running or finished EU FP projects. The CEC WYS (Central European Centre for Women and Youth in Science, [www.cec-wys.org](http://www.cec-wys.org)) and the WS DEBATE (Stimulate Debate on Women and Science Issues in Central Europe, <http://wsdebate.tetalap>) FP6 projects can be considered as local predecessors of GENDERA. In both projects one or more partners of the present proposal have been active partners (e.g. TETALAP, JSI), and they have access to project results.

Several public deliverables (reports, database of good practices, analysis of good practices, guidelines) of the "Practising Gender Equality in Science (PRAGES)" FP7 project (in which TETALAP is a partner) which was finished by the middle of 2009 was very useful in the work to be completed in GENDERA.

The best practices on gender balance were also discussed at the European level. All partners participated in the organisation and also suggesting international speakers for the international roundtable. Leaders of international research and RTD funding organizations and associations, like DG Research, DG INFSO, COST, as well as selected national funding research institutions from the countries participating in the project had been invited for a roundtable discussion on potential means to promote women's participation in research – especially in fields where their proportion is still disproportionately low. The international roundtable was widely disseminated in each partners' country.

Stakeholders, including Task Force members, representatives from European bodies including the European Commission, the European Parliament, from Europe as well as experts from outside of Europe came to the European GENDERA conference.

Norbert Höptner, European Commissioner to the Minister of Economics of Baden-Württemberg, took copies of the guidelines to relevant meetings with important stakeholders in the region.

## PARTICIPANTS AND RESEARCH TEAM

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### Participants

Number of participants: 9

Number of countries involved: 9

	Type	Country	Role	Previous participations to FP
Participant 1	REC	HU	Coordinator	21
Participant 2	REC	AT	Participant	63
Participant 3	REC	SI	Participant	155
Participant 4	REC	ES	Participant	4
Participant 5	REC	IT	Participant	94
Participant 6	REC	GR	Participant	55
Participant 7	REC	DE	Participant	42
Participant 8	HES	SK	Participant	9
Participant 9	HES	IL	Participant	5

### Team Composition

Team Size: members\*

GENDER		
Female	Male	Unknown
84%	11%	5%
SENIORITY		
Average	Junior	Senior
0%	21%	79%
PhD		
No	Yes	
47%	53%	
BACKGROUND		



Applied Sciences	Health Sciences	Humanities & Social Sciences	Natural Sciences	Unknown
21%	11%	63%	0%	5%

\*The data are based on the analysis of the provided project's Description of Work.

## DELIVERABLES AND PUBLICATIONS

### Project deliverables

Del. No.	Deliverable name	WP No.	Dissemination level <sup>34</sup>	Delivery date <sup>35</sup>
D1.1	Minutes of project meeting 1	1	CO	7
D1.2	Minutes of project meeting 2	1	CO	13
D1.3	Minutes of project meeting 3	1	CO	19
D1.4	Minutes of project meeting 4	1	CO	25
D1.5	Minutes of project meeting 5	1	CO	30
D2.1	Database of best practice on gender balance in research and higher education institutions	2	PU	5
D2.2	Synthesis report on best practice on gender balance in research and higher education institutions	2	PU	5
D3.1	Report on the establishment of Task Forces	3	RE	4
D3.2	Report on the national workshops	3	RE	28
D4.1	Report on the international roundtable	4	PU	8
D4.2	Guidelines on gender policy for research organisations	4	PU	10
D5.1	GENDERA leaflet	5	PU	1
D5.2	GENDERA website	5	PU	3
D5.3	Report on the European conference	5	PU	30
D5.4	Communication plan	5	RE	1
D5.5	Media contact list	5	RE	3
D5.6	GENDERA Policy Brief	5	PU	30

<sup>34</sup> Please indicate the dissemination level using one of the following codes:

PU = Public

PP = Restricted to other programme participants (including the Commission Services).

RE = Restricted to a group specified by the consortium (including the Commission Services).

CO = Confidential, only for members of the consortium (including the Commission Services).

<sup>35</sup> Measured in months from the project start date (month 1).

**MAIN SOURCES**

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eCORDA  
CORDIS database  
OPENAIRE database  
Project deliverables  
Project's description of work

## **TRANSFERING IMPLEMENTING MONITORING EQUALITY "GENDERTIME"**

**Framework Programme: FP7**  
**Action line/Part: 5.2. Strengthening potential, broadening horizons**  
**Activity: 5.2.1. Gender and research**  
**Area: 5.2.1.1. Strengthening the role of women in scientific research and scientific decision-making**  
**Dimension: GENDER AND SCIENCE**  
**Tool: Coordination and support action**  
**Project Call For Proposal: FP7-SCIENCE-IN-SOCIETY-2012-1**  
**Status: Ongoing**  
**Total cost: € 3 329 404.04**  
**Total EU funding: € 2 328 077.00**  
**Website: <http://www.gendertime.org/>**  
**Period: 01/01/2013 – 31/12/2016**  
**Subjects: Scientific Research**  
**Project ID and Acronym: ID: 321491, Acronym: GENDERTIME**

### **BACKGROUND AND CONTEXT OF THE PROJECT AND STRATEGIC NEEDS**

Women's equal participation in scientific research is a key-issue for European economic and technical development, as well as a central matter for the achievement of equal opportunity between women and men and social justice.

The under-representation of women in certain scientific disciplines, as well as in research decision making positions in most fields is well known and has indeed been a major concern for the European Commission since a number of years.

GenderTime deals with the implementation of gender equality measures on a cross-cultural level with the aim to develop a more gender-diverse scientific workforce in the participating institutions in the long term perspective. GenderTime's general objective was to contribute to an organizational and structural change in the approach to women scientist in European research and to disseminate at all levels the tools to implement it.

The project engaged 10 scientific institutions from 8 European countries (FR, IT, GB, RS, AT, DE, SE, ES) into implementing self-tailored action plans in their institutions in order to identify and implement the best systemic approach to increase the participation and career advancement of women researchers. The consortium cooperated on common actions to transfer knowledge between relative newcomers and institutions with experience on gender aware management

Institutions involved in GenderTime are intentionally very different in terms of size, discipline, history, etc. in order to experiment in various situations and to create a synergy among scientific partners. The plans involved activities as recruitment, retention and promotion policies, supporting work-life balance measures, updated management and research standards, supporting policies for dual careers-couple, etc. To guarantee the real implementation of structural change in each Institution, a central role was assumed by the transfer agents. A crucial point was the real commitment of organizational heads of each participant.

The integration of various perspectives in GenderTime's approaches leading from recruiting girls for STEM to the retention and progression of women scientists in the relevant fields is important. A basic idea is that only an overall institutional approach can lead towards gender quality on all areas and hierarchies.

To guarantee the real implementation of structural change in each Institution a central role will be assumed by the Transfer Agents. A crucial point will be the real commitment of organizational heads of each participant.

### **SPECIFIC PROJECT OBJECTIVES**

The objectives of the GenderTime project are:

- To identify among the participating institutions, the best systemic approaches to increase the participation and career advancement of women researchers at:
  - organisational level in each institution,
  - social and cultural level with actions aimed at changing the gender climate;
  - European level, through increasing cooperation between universities and research labs.
- To define and implement realistic and effective self-tailored action plans taking advantage of knowledge transfer between new-comers and experienced institutions across Europe.
- To monitor and evaluate action plans through self-tailored monitoring tools.
- To facilitate the transfer and exchange of experiences between partners through a mutual learning process and knowledge transfer workshops at different levels and exchanges of personnel.
- To multiply the transfer and the exchange of experiences between the consortium and other EU higher education and research institutions in order to ensure a maximum impact of the project.
- To produce a toolbox and monitoring tools to implement gender policies and structural change.
- To disseminate the guidelines and monitoring tools.

Promoting gender equality in science in the ERA was a guiding principle in the Commission work programme of 2006 in the field of 'Science and Society'.

Moreover, the GenderTime supports realisation of Commitment 1 to set up national strategies to train enough researchers including promoting gender equality, and Commitment 4 to settle ERA framework a of Innovation Union Flagship Initiative. Moreover, the project GenderTime was concordant with the Science & Society Action Plan and its objective 'to boost gender equality in research, through stimulating the participation of women in science and technological development; and fostering the integration of the gender dimension throughout European research'.

#### **SaS/SiS Programme objectives/Activity lines**

GenderTime deals with the implementation of gender equality measures on a cross-cultural level with the aim to develop a more gender-diverse scientific workforce in the participating institutions in the long term perspective. Thus, it addresses following activity lines of SaS/SiS Programme:

- To boost gender equality in research, through stimulating the participation of women in science and technological development.
- To foster the integration of the gender dimension throughout European Research through gender mainstreaming and specific activities for the promotion of women researchers and gender equality in European Research.
- To raise the awareness within the scientific community, in the general public and among policy makers.
- To Benchmark and monitor.

#### **SaS Action Plan**

The project objectives are related to following actions of the SaS Action Plan:

- Action 25 Monitor progress towards gender equality in European Scientific Research,
- Action 27 Promote gender equality in science in the wider Europe,
- Action 28 Ensure co-ordination of prospective activity at the European level.

### **PROJECT RESULTS AND OUTCOMES**

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The final results of the project will be available beginning 2017 (project end date is 31/12/2016). Thus, the only main report available is the 1st Periodic Project Report covering the period of 01/01/2013 – 30/06/2014. Therefore, only partial/intermediate project results and outcomes are presented in this section.

#### **Project objectives**

- Besides a measurable change in the participating institutions through evaluation instruments such as tailor-made indicators, the outcome of the project would be the production of a tested toolbox and management tools for future action plans in institutions interested in similar approaches.
- Comparative analysis of GenderTime experiences identified the best self-tailored actions according to cultural contexts, disciplines, etc. and the factors for a successful sustainable implementation.
- The collation of existing measures has allowed an overview of the consortium where similarities can be found and also highlighted areas of vast difference
- Overall, the work completed offered a substantial grounding for each institution to build awareness of the situation in their institution. Whilst the categorization of measures raised questions amongst the consortium, overall partners found the work done for task 1 was helpful and informative, especially in trying to understand what is happening in other institutions and in other countries.
- Partners have been able to consolidate information about existing measures in their institutions and use the data generated for two main purposes: First, to inform the revision of tailored action plans and second, to develop knowledge exchange between partners.
- Key findings on existing measures at partner institutions:
  - The eight partners who have provided information for the analysis have outlined details of a total of 149 existing measures - an average of 19 measures per institution.
  - 60% of the measures listed have been fully implemented. 28% have been partially implemented and a small proportion (7%) has not been implemented at all.
  - The majority of measures are applicable to all members of staff – 66% of measures. Nearly a quarter (23%) of all measures are particularly aimed at the groups of interest to the GenderTime project; academic and research staff. 7% of existing measures are aimed at women across all staff types.
  - 44% of measures have been subjected to some sort of evaluation within the institution – 56% have had no evaluation at all.
  - Each measure has been assessed by partners in relation to the aims of the measure itself and recorded a level along the scale of 'very high impact' to 'very low impact'. Nearly 40% are considered 'very high' or 'high' impact. A third of measures are considered 'medium impact' and 28% have been evaluated as 'low impact' or 'very low impact'.

### Main achievements according to Programme objectives

As described in the programme intervention logic and in the Work Programmes:

- The 7th Framework Programme demands active promotion of the role of women in scientific research. The objective is “to boost gender equality in research, through stimulating the participation of women in science and technological development; and fostering the integration of the gender dimension throughout European Research”. Most specifically, the project addressed another objective, which is **stimulating the policy debate at national and regional level**.
- GenderTime participated in those objectives by contributing to an organizational and structural change in the approach to women scientists in the European research and to disseminate at all levels the tools to implement it. Thus, and increased gender awareness in Community scientific research policy and programmes through gender mainstreaming and enhanced empowerment of women in science, is expected.

### Main achievements according to SiS dimensions

The project contributed to the development of SiS SaS dimension objectives’: to integrate women in all areas, to eliminate barriers for women, to take into account their needs and interests.

It has initiated wide change in the area of gender equality in science in the well-known scientific institutions involved that might be considered as serving as an examples for the broader scientific audience. In addition, GenderTime resulted in the variety of publications, connected directly or indirectly to the project and its thematic that can be argued as means to further widespread and initiate structural change in the institutions.

### DISSEMINATION AND ENGAGEMENT ACTIVITIES AIMED AT TRANSFERRING THE PROJECT RESULTS TO WIDER COMMUNITIES

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It is too early to assess if the project conducted all the foreseen dissemination activities as the final results of the project will be available beginning 2017 (project end date is 31/12/2016). General promotion material (leaflet, poster and presentation) has been translated from English into partner languages including French, German, Italian, Spanish and Serbian.

- **Printed materials:**
  - GenderTime poster (electronic and paper forms)
  - GenderTime leaflet (electronic and paper forms)
  - GenderTime logo
- **IT & Website:**
  - GenderTime project website
  - GenderTime presentation
- **Mass media & Publications:**
  - Newsletter published in September 2015
  - Report has been released: Thaler, Anita (2016). Learning Organisations in Science and Research: The Role of Transfer Agents in Gender Equality Change Processes. Graz: IFZ Eigenverlag. DOI: 10.13140/RG.2.1.4693.0320 [20.4.2016]
  - 9 articles were published in popular press
  - 24 Papers and/or presentations connected to GenderTime were published for / or as a result of conferences
  - 3 poster session presentation were released
  - 1 article in the scientific journal was published
- **Public events:**
  - 2 on-site visits (IFZ and BUW visited Ochanomizu University, [IFZ team visited Wuppertal University](#))
- **Organization of 5 Workshops / Conferences**
  - 2014, June 11: Yvonne Pourrat organized a Session “Gender in the new European Framework Programme Horizon 2020”, EPWS (European Platform of Women Scientists) Conference, Paris
  - 2014, September 3-5: Panel: Creating Gender Equal Workplaces in Academia – Different Approaches for a Common Goal. Examples from 4 European Projects, 8th European Conference on Gender Equality in Higher Education, Vienna, Austria
  - 2014, May 5-6: STS Conference Graz 2014: “Critical Issues in Science and Technology Studies”, May 05-06, 2014, GRAZ, AUSTRIA
  - 2013, June 12: EU Projects Workshop organized by Silvana Badaloni
  - 2013, June 11: Transfer Agent-Workshop organized by Barbara Bagilhole and Anita Thaler

- **Participation at 11 Round Tables / Meetings / Networking events**

- 2014, July 23: Jennifer Dahmen and Anita Thaler gave a talk about "Gender Equality in Academia - Results and Examples from European Research" at the Ochanomizu University, Japan
  - 2014, June 11: Anne-Sophie Godfroy presented GenderTime project at the EPWS (European Platform of Women Scientists) Conference, Paris
  - 2014, March 30: GenderTime meets EGERA
  - 2014, March 26: GenderTime project presentation at the Loughborough University
  - 2014, March 25: "How to monitor Gender Equality in Research Institutions" session at the Mid-Term Workshop of STAGES Project, Brussels.
  - 2014, March 24: IFZ researchers Anita Thaler and Thomas Berger at a Panel Discussion at the University of Graz.
  - 2014, January 10: GenderTime event at UPEC, January 10, 2014
  - 2013, September 30: Round table at the 1st conference on young academics at Alpen-Adria-University (AAU) Klagenfurt/ Wien Graz.
  - 2013, September 27: NEAR/Researchers Night in Padua, Italy.
  - 2013, July: Round table on the FemPower initiative, Vienna, Austria.
  - 2013, June 25: UPEC Academic meeting on GenderTime project in Paris, France.
- GenderTime International Conference in Paris on September 28<sup>th</sup>-30<sup>th</sup> 2016.

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**PROJECT IMPACTS**

**Potential impact**

GenderTime project will contribute to an organizational and structural change and to transform institutional practices and culture in European research and scientific decision-making bodies through real implementation of actions plans in selected research and academic institutions to support gender diversity and equal opportunities between women and men.

With the goal to support research and academic institutions towards the best systemic approaches to enhance gender diversity and equal opportunities between women and men, GenderTime will generate a toolbox and monitoring tools to implement gender policies and structural change and will provide valuable knowledge and experiences that could be useful at different levels:

- At organisational level in each selected institution, through a mutual learning process and knowledge transfer workshops at different levels and exchanges of personnel.
- At organisational level in similar European research and academic institutions, taking advantage of knowledge transfer between new-comers and experienced institutions across Europe.
- At social and cultural level with actions aimed at changing the gender climate, multiplying the transfer and the exchange of experiences between the consortium and other EU higher education and research institutions in order to ensure a maximum impact of the project.
- At European level, through increasing cooperation between universities and research centres, providing a toolbox and monitoring tools to implement gender policies and structural change and disseminating guidelines and monitoring tools.

Through the external evaluation the transferability of gender equality actions will be critically observed and questioned. These learning processes will especially help for providing support to other entities which are interested in taking up activities proven or further developed in Gender TIME. Transferring the gathered knowledge to interested stakeholders is embedded in the project idea right from the beginning.

The project was able to involve very central organisations that participated to a lot of projects and participated with other organisations which participate very frequently to the FPs.

The most central (top 1%) were the Fundación Tecnalia Research & Innovation, Linköping University, Università degli Studi di Padova, and Loughborough University. Then came in the top 5% the Bergischen Universität Wuppertal, Mihajlo Pupin Institute, Université Paris XII Val de Marne. They all have the capacity to diffuse and spread information and knowledge, which means that the study's results were more likely to be diffused.

The other participating organisations were the Danube University Krems, Egalité des Chances dans les Etudes et la Profession d'Ingénieur en Europe Association, Interuniversitäre Forschungszentrum für Technik, Arbeit und Kultur (IFZ). They are peripheral, which means their impact might be less important than the ones described earlier.

Furthermore, two of the participating universities were highly ranked in the University ranking provided by the Centre for Science and Technology Studies (CWTS) of the Leiden University: the Università degli Studi di Padova at position 290, and the Loughborough University at number 150.

**Actual impact** as resulting from the project documents and/or commented during the interviews with project coordinators. Impacts can be clustered into four types:

- **Scientific impact**

The project involved highly ranked scientific institutions and its researchers have published a number of papers on gender equality in the observed period: 1 journal, 1 report and 24 papers and/or presentations for conferences.

- **Social media impacts**

The project achieved considerable social media impact. Between the 1 January 2013 and the 4 March 2016, 357 were posted, mainly on Twitter (94%), followed by Facebook (1%) and iltalenti.fi (1%).

Conversation concentrated in US and the majority of Western European countries.

The most frequently mentioned Twitter account was @gendertime (180+) and hashtag #gendertime (90+) followed by #genderequality (20+).

As far as demographics of the audience is concerned, over 60% of reached audience was +35yo. The communication targeted mainly female audience (81% of reach).

GenderTime's partners and coordinators took part in different events to promote the project. They gave 2 on-site visits, participated to 11 Round Tables / Meetings / Networking events. They also organized 5 Workshops / Conferences.

Moreover, 9 articles about the project were published in the popular press, giving GenderTime the possibility to reach individuals who are not especially interested in the gender subject.

- **Institutional and organisational impact**

The toolbox **and monitoring tools** are expected to implement gender policies and structural change. However, the impact has still to be measured/assessed after the end of project.

- **Policy impact**

The toolbox is expected to contribute to the future policy actions on institutional, national and European levels through enabling monitoring and comparative analysing of gender policies at research institutions. However, the impact has still to be measured/assessed after the end of project.

## **PATH-BREAKING ADVANCEMENTS**

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The produced toolbox is one of very few toolboxes directed into gender mainstreaming.

As the project portal has been built in Drupal, a free and open-source content management framework, the consortium will use this tool which provides Internet forums or community management service. The portal is targeted towards partners' institutions: project team members and transfer agents mainly. Nowadays, the Web 2.0 technologies can present a vast array of opportunities to provide a more interactive communication among participant institutions. They are also a good way of keeping both the members of the consortium and Transfer Agents (and other potential target beneficiaries) on the map of what is going on in the implementation process.

## **BEST PRACTICES**

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The project initiated on Month 6 a co-operation with other similar projects, inviting four of them (FESTA, STAGES, GenisLab and INTEGER) to join an open event in Padua (June 2013), this cooperation is encouraged by the EC (Unit Ethics and Gender). A meeting with all the projects was planned in September 2014 in Brussels.

## **EU ADDED VALUE OF THE PROJECT**

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Interviews and focus group discussions with European experts on organizational challenges for implementing Gender Equality Action Plans were performed.

The project was able to involve very central organisations that participated to a lot of projects and participated with other organisations which participate very frequently to the FPs.

## **PARTICIPANTS AND RESEARCH TEAM**

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### **Participants**

Number of participants: 10

Number of countries involved: 8

	Type	Country	Role	Previous participations to FP
<i>Egalité des Chances dans les Etudes</i>	OTH	FR	Coordinator	2



	Type	Country	Role	Previous participations to FP
<i>et la Profession d'Ingénieur en Europe Association</i>				
<i>Universita degli Studi di Padova</i>	HES	IT	Participant	187
<i>Loughborough University</i>	HES	GB	Participant	83
<i>Mihajlo Pupin Institute</i>	REC	RS	Participant	19
<i>Danube University Krems</i>	HES	AT	Participant	9
<i>Bergischen Universität Wuppertal</i>	HES	DE	Participant	31
<i>Linköping University</i>	HES	SE	Participant	118
<i>Interuniversitäre Forschungszentrum für Technik, Arbeit und Kultur (IFZ)</i>	REC	AT	Participant	5
<i>Fundación Tecnalia Research &amp; Innovation</i>	REC	ES	Participant	339
<i>Université Paris XII Val de Marne</i>	HES	FR	Participant	14

### Team Composition

Team Size: 33 members\*

GENDER				
Female		Male		Unknown
88%		12%		0%
SENIORITY				
Average		Junior		Senior
3%		6%		91%
PhD				
No			Yes	
30%			70%	
BACKGROUND				
Applied Sciences	Health Sciences	Humanities & Social Sciences	Natural Sciences	Unknown
27%	3%	70%	0%	0%

\*The data are based on the analysis of the provided project's Description of Work.

### DELIVERABLES AND PUBLICATIONS

It presents the documents produced by the project (intermediate and final report, dissemination report) and any publication produced as direct consequence of the project.

Project deliverables

Del. No.	Deliverable name	WP No.	Dissemi-nation level	Delivery date
D1.1	Official project report for the EU Period 1	1	CO	18
D1.2	Official project report for the EU Period 2	1	CO	33
D1.3	Final report	1	CO	48
D2.1	Compilation and systematization of Action Plans implemented in GenderTime institutions	2	CO	6
D2.2	1st Periodic progress report on the implementation of Action Plans	2	CO	18
D2.3	2nd Periodic progress report on the implementation of Action Plans	2	PU	36
D3.1	Monitoring Progress Report	3	CO	30
D4.1	Didactical workshop concept for knowledge transfer aimed at transfer agents	4	CO	4
D4.2	Didactical workshop concept for knowledge transfer aimed at transfer agents and multipliers inside	4	CO	18
D4.3	Didactical workshop concept for knowledge transfer aimed at transfer agents and multipliers	4	RE	30
D4.4	Organisation of the knowledge transfer workshop for multipliers as part of the final conference	4	PU	45
D5.1	Mid-term report about cooperation evaluation and impact evaluation of the implementation of Gender A	5	CO	24
D6.1	Report on existing documented methodologies, differences and similarities with GenderTime	6	CO	30

D6.2	<i>Toolbox for Implementing structural change in context in English</i>	6	RE	36
D7.1	<i>Web portal launching, external and intra-consortium e-collaboration tool development</i>	7	PU	6
D7.2	<i>Publication of project promotion material</i>	7	PU	6
D7.3	<i>Translation of promotion material to partner languages</i>	7	PU	10
D7.4	<i>List of dissemination activities of partners (including cultural and artistic events)</i>	7	CO	24
D7.5	<i>Publication of promotion material and organisation of final conference</i>	7	PU	35
D7.6	<i>List of dissemination activities of partners: Final report</i>	7	CO	48
D7.7	<i>Final Conference Proceedings</i>	7	PU	48

## Related publications

### Articles:

- 2013, November 14: Bergische Uni auf GenderSummit in Washington vertreten, Bergische Universität Wuppertal University press.
- 2013, July 07: Gleichstellung: Bergische Universität Wuppertal in oberste Liga aufgestiegen, Bergische Universität Wuppertal University press.
- 2013, June 25: Réunion d'expertes et experts autour du projet GenderTime, The UPEC Hebdo n° 141.
- 2013, May 27: Sledbenice Bajronove kćeri, Politika.
- 2013, March: Bessere Chancen für Frauen in der Wissenschaft, UNISONO, Alpen Adria University Klagenfurt.
- 2013, March 11: L'UPEC se lance dans un projet européen visant à améliorer l'égalité dans les carrières, La Lettre de l'ORS, n° 142.
- 2013, March 05: Wider den "Kloneffekt" bei männlichen Chefs, derStandard.at.
- 2013, February 08: Chancengleichheit von Wissenschaftlerinnen und Wissenschaftlern: Neues EU-Projekt an der Bergischen Universität gestartet, Bergische Universität Wuppertal University press.
- 2013, February 07: Access To Scientific and Academic Careers At UPEC: About Gender Issues, The UPEC Hebdo, n° 124.

### Publications - Conferences:

- Dahmen, J. and Peterson, H.: To belong, or not belong. Networks as career facilitators in European research institutions. 2015 Annual Meeting Society for Social Studies of Science. Denver, Colorado, November 11-14 2015.
- Siebenhandl, K.; Mayr, E., 2015: GenderTime: Evaluation of Measures for Women Encouragement in Science Organisations; womENCourage online proceedings, ACM, Uppsala.
- Peterson, H. and Dahmen, J.: A Tough Job But Someone Has To Do It. Experiences of Gender Equality Experts in European Research Organizations. ESA 2015 - 12th conference of the European Sociological Association, Prague, 24-28 August 2015.
- Siebenhandl, K., Gindl, M.: Gendertime; Impact Evaluation As Part of the Learning Process at SASE International Conference: Inequality in the 21st Century; 03.07.2015, London, Great Britain.
- De Rossi, M., Restiglian, E.: Teleworking As a Measure of Work-Life Balance and a Factor of Quality at the University of Padua, SASE International Conference: Inequality in the 21st Century; 03.07.2015, London, Great Britain.
- Badaloni, S., Godfroy, A., Perini, L.: About Glass Ceiling Index GCI, SASE International Conference: Inequality in the 21st Century; 03.07.2015, London, Great Britain.
- Godfroy, A., Badaloni, S.: Measuring and Monitoring Gender Equality in the Academia: A Comparative Approach of Recent European Gender Equality Plans, Gendering Science: Women and Men Producing Knowledge Conference, 4 – 6 June 2015, Prague, Czech Republic.
- Peterson, H., Dahmen, J.: Fifty shades of equality. A European Perspective on Gender Equality Policies in Research Institutions, International Conference on Gender and Education: Critical Issues, Policy and Practice at Indiana University, Bloomington, USA, May 28-30 2015.
- Béraud, A.: GenderTime project, 5th GenderSummit, Cap Town, Africa, April 2015.

- Janev, V, Vranes, S., Paunovic, D.: Structural changes, gender and research and innovation potential: Case study in the ICT domain, Second International Conference on Advances in Management, Economics and Social Science - MES 2015, Rome, Italy, April 18-19, 2015.
- Godfroy, A.: The Cumulative Effects of Science Norms on Gender Inequalities in Academic Careers lessons learned from the GenderTime project, TRIGGER Conference "Women in academic world", Paris, March 2015.
- Barnard, S., Bagilhole, B., Dainty, A., Tarek Hassan, T.: The gendered experience and impact of academic culture in the UK, 8th European Conference on Gender Equality in Higher Education, September 3-5, 2014, Vienna, Austria.
- Achterberg, S., Dahmen, J.: How much Gender Equality fits into the University? Results of a German Case Study, 8th European Conference on Gender Equality in Higher Education, September 3-5, 2014, Vienna, Austria.
- Thaler, A., Hofstaetter, B.: Promoting women researchers' careers. An evaluation of measures in life sciences and ICT, 8th European Conference on Gender Equality in Higher Education, September 3-5, 2014, Vienna, Austria.
- Godfroy, A.: From Women in Science to Gender in Science, 6th International Conference of the European Society for the History of Science Lisbon, 4-6 September 2014
- Godfroy, A.: GenderTime: How to assess gender equality among researchers across Europe? 9th meeting of STEP (Science and Technology in the European Periphery), Lisbon, 1-3 September 2014.
- Godfroy, A.: Indexes and indicators: Translating the real world into numbers creates a new social reality, Society for Social Studies of Science (4S) Meeting, Buenos Aires, 20-23 August 2014.
- Dahmen, J., Thaler, A.: Glass Elevator versus Sticky Floor: Tackling Gender (In-)Equality in Academia', XVIII ISA World Congress of Sociology in Yokohama, July 13-19, 2014.
- Badaloni, S.: 'Gender Based Segregation in Education: New and Old Behaviors ', 8th European Conference on Gender Equality in Higher Education, September 3-5, 2014, Vienna, Austria.
- Béraud, A., Pourrat, Y.: Gender in Engineering Education - Two European projects: from understanding to acting, EDUCON 2014, Global Conference on Engineering Education, Istanbul, 3-5 April 2014.
- Barnard, S., Bagilhole, B., Dainty, A., Freitag, D., Hassan, T., Hofstätter, B., Thaler, A.: Research as a mechanism for change: doing gender action research in higher education organizations, Gender, Work & Organization 8th Biennial International Interdisciplinary Conference (Keele University, 26/06/2014)
- Barnard, S., Hassan, T., Bagilhole, B., Dainty, A.: A European approach to gender equality in higher education institutions? BSA Work, employment and society Conference 2013 (University of Warwick, September 3-5, 2013)
- Godfroy, A.: The Cumulative Effects of Science Norms on Gender Inequalities in Academic Careers Annual Meeting of the Society for Social Studies of Science (4S, San Diego, California, October 9 - 12, 2013)
- Godfroy, A.: "Les normaliennes de la rue d'Ulm between 1910 and 1939: who and why?" In T183 Session "Twentieth-century sciences in comparative (inter)national contexts-Modern French science: economy and institutions", International Congress of History of Science, Technology and Medicine (ICHSTM 2013, Manchester, UK, July 24 2013).

#### Conferences - Poster Sessions

- Barnard, S.: Private higher education in the UK: experiences and perceptions of executive and academic staff, Education and Learning: Sociological Perspectives conference (University of Surrey on the 25th September 2013)
- Dahmen, J.: GenderTime project, GenderSummit (Washington, USA, November, 13 - 15, 2013)
- Dahmen, J.: GenderTime Project, Structural Change Promoting Gender Equality in Research Organisations (international conference under the auspices of the Lithuanian Presidency to the EU Council, Vilnius/Lithuania, November 21-22, 2013), see Electronic Poster Exhibition

#### Journals:

- Barnard, S., Hassan, T., Dainty, A., Bagilhole, B.: Interdisciplinary content, contestations of knowledge and informational transparency in engineering curriculum, *Teaching in Higher Education*, Volume 18, Issue 6 (2013), DOI:10.1080/13562517.2013.836089

#### MAIN SOURCES

eCORDA  
 CORDIS database  
 OPENAIRE database  
 Project deliverables  
 Project's description of work

## **INSTITUTIONAL TRANSFORMATION FOR EFFECTING GENDER EQUALITY IN RESEARCH - "INTEGER"**

**Framework Programme: FP7**

**Action line/Part: 5.2 Strengthening potential, broadening horizons**

**Activity: 5.2.1. Gender and research**

**Area: 5.2.1.1. Strengthening the role of women in scientific research and scientific decision-making**

**Dimension: GENDER AND SCIENCE**

**Tool: Coordination and support action**

**Project Call For Proposal: FP7-SCIENCE-IN-SOCIETY-2010-1**

**Status: Completed**

**Total cost: € 3 568 019.20**

**Total EU funding: € 2 247 705.00**

**Website: <http://www.integer-tools-for-action.eu/en>**

**Period: 01/03/2011 - 30/06/2015**

**Subjects: Education and Training**

**Project ID and Acronym: 266638; INTEGER**

### **BACKGROUND AND CONTEXT OF THE PROJECT AND STRATEGIC NEEDS**

While there is an increasing demand regarding the quality of science and research in competition with other regions of the world the European Union faces a lack of researchers, particularly, in the fields of natural sciences, technology and engineering and mathematics (STEM). In this respect, the INTEGER project draws attention to the gender perspective and to increase the involvement of women in STEM disciplines. According to the Description of Work of the INTEGER project, the number of women in senior management and decision-making positions is particularly low in STEM disciplines and is representing a "democratic deficit".

The INTEGER project aimed at promoting careers of women in academic and non-academic research areas in STEM disciplines in order to enhance the aforementioned research quality by including women as equal partners. The INTEGER consortium sought to improve organisational matters and to enhance awareness of gender equality in particular in STEM disciplines in order to increase the number of women scientists and researchers in this sector. The INTEGER consortium consists of five partners: Centre National de la Recherche Scientifique (CNRS, France), Trinity College Dublin (TCD, Ireland), Siauliu University (SU, Lithuania), GESIS - Leibniz Institut Für Sozialwissenschaften (Germany); and Bradford College / UKRC (UK). Within CNRS, TCD and SU structural change was supposed to be enabled by the project facilitating equal opportunities for women in making a scientific career in the STEM disciplines.

### **SPECIFIC PROJECT OBJECTIVES**

As presented in the Description of Work (DoW), the INTEGER project aimed at inducing structural change for the benefit of women careers in science, research and technology and higher education organisations in particular in the STEM disciplines. In order to achieve this aim, the development of so called Transformation Action Plans (TAPs) for each organisation involved was considered as central strategic instrument. Transformation Action Plans (TAPs) are tailor-made documents for each organisation (CNRS, TCD, SU) committed to facilitate structural change regarding the involvement of women in specific in senior research and senior management positions. TAPs are based on a baseline assessments of gender-related issues (problem analysis) in the organisations and comprise instruments and approaches to facilitate gender equality. Local, national and international gender equality experts feeded-in their expertise in the development of the TAP as instrument in general. Specific TAPs were developed and implemented at all organisational levels in the organisations. Through TAPs gender issues are further mainstreamed in science and research and higher education organisations. This is supposed to safeguard a wider impact of the INTEGER project.

The Description of Work provides a list of main and supplementary objectives:

- a) Develop and refine the TAP methodology,
- b) Implement tools and management practices to realise TAPs and embed gender equality in the organisations involved,
- c) Implement actions to address areas of intervention, which are: empowerment of women decision-makers in STEM disciplines, organisational structures and career opportunities and work-life balance schemes,
- d) Support implementation through access to gender mentoring and training at organisational and unit level, knowledge and experience sharing,
- e) Assess the impact of the instruments implemented,
- f) Transfer good practices and facilitate mutual learning,
- g) Develop guidelines for gender equality training and other support measures,
- h) Disseminate project information.

Among other things, the Description of Work refers to the European Unions "Roadmap for equality between women and men", which in turn outlines six priority strategic actions. These six priority actions include, for instance, equal economic independence for women and men but also the equal representation of women and men in decision-making. The latter particularly seeks to contribute to foster the engagement of women in science and research and technology

development. The consortium partners are also aware of the general FP7 objectives, which are aiming at structural changes in research and technology and higher education organisations.

### **SaS/SiS Programme objectives/Activity lines**

The main objective of the European Commission's action line regarding gender equality are the following:

- To boost gender equality in research, through stimulating the participation of women in science and technological development. A focus will be on certain disciplines or fields (engineering, entrepreneurship, innovation and technology) or levels (senior and decision-making positions).
- To foster the integration of the gender dimension throughout European Research through gender mainstreaming and specific activities for the promotion of women researchers and gender equality in European Research.
- To encourage men to participate actively in promoting gender equality in science.
- To raise the awareness within the scientific community, in the general public and among policy makers.

The INTEGER project has been very well in line with the objectives of the action line by improving women careers in science by addressing structural changes in different disciplines. Even though the objectives have generally been met, there has not been a special focus on the above mentioned disciplines (engineering, entrepreneurship, innovation and technology) or levels (senior and decision-making positions) in particular.

Furthermore, it is true that there has been an effort done to raise awareness for the need to reduce the existing difference between men and women not only in the general public and the scientific community, but also to address policy-makers. However, the INTEGER project has not tried to stimulate men in taking special interest supporting gender parity.

### **PROJECT RESULTS AND OUTCOMES**

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TAP development and Implementation teams at each participating organisations were established. In order to come up with tailor-made TAPs for the three organisations, a primary and secondary quantitative survey for baseline data on gender-related issues in the organisations was performed. The compiled data was analysed, shared within the partner organisations involved and finally supported the TAP development with each partner organisation involved. The TAPs are to be annually reviewed and adjusted in line with potentially changing needs of the respective organisations and the women involved in these organisations. Transformational change training seminars with the project partners were held at each organisation to share experience and practices with respect to structural change.

It is considered as a success to establish a platform to transfer knowledge and share practices among the organisations involved. Among other things, practices or implementation measures developed by each partner organisations include, for example, funds for child-care support for women scientists and researchers attending conferences or returning from maternity leave, grants for women research, woman networks or setting up a 'Share your Success' programme.

Apart from that, various dissemination channels were set up such as a website entries, newsletters. Dissemination activities were set up to communicate project results to the general public and to interest groups and stakeholders. Last but not least, a project-integrated evaluation concept was designed and a general impact assessment which enables a better insight to other organisations, their gender equality issues and plausible change prospects.

Main achievements within the three partner organisations are listed and explained in the final Report of the project. Some main points are to be mentioned:

- CNRS: establishment of different TAP implementation teams in order to overcome organisational complexity (including geographical issues), collection of qualitative and quantitative data, the overall approach included participation and ownership (of measures proposed), development of peer-to-peer learning schemes, communication channels (promotional videos, commitment message, e-newsletter, national media), awareness raising and capacity building trainings, outreach actions in high schools.
- TCD: comprehensive surveys for data collection, establishment of different TAP implementation teams, introduction of a so called "Unconscious Bias Training".
- SU: grant scheme supporting women researchers for e.g. publishing scientific works and supporting conference participation, awareness training and learning scheme, introduction of training module Mainstreaming Gender Equality for University Change.

The INTEGER project is addressing action line 2 "strengthening potential, broadening horizons", activity 5.2.1 "gender and research" and thematic area 5.2.1.1 "strengthening the role of women in scientific research and decision making". The respective call, sought to implement structural change in science, technology and research and higher education organisations. As it was shown, the INTEGER project succeeded in realising this aim. Three research organisations developed and implemented transformation action plans that focused on gender equality issues. Project results align with the European Union's gender-related objectives included in the "Roadmap for equality between women and men". With respect to general FP7 objectives, INTEGER may also disseminate gender mainstreaming and equality issues to the larger public beyond the action for the individual organisations involved. Hence, the TAP approach is expected to have multiplying effects that disseminate the projects concept to a larger public.

### **Main achievements according to the Programme**

According to the programme INTEGER was supposed to increase gender awareness in the EU scientific research policy and programmes through gender mainstreaming and enhanced empowerment of women in science. Over the duration of the INTEGER project, implementation of a broad array of actions in line with the programme was fully established and realised, with many initiatives set to continue beyond the lifespan of the project.

The INTEGER project has raised the profiles of its partner institutions in the academic stakeholder community, as role models for peer European research institutions, providing orientation and assistance. INTEGER has served as a practical catalyst for the larger community of research institutions to engage in transformational change in their respective partner countries.

### **Main achievements according to SiS dimensions**

At the beginning of the FP7-SiS work programme one of the six thematic areas is still dedicated to "women and science". However, during the course of the FP7-SiS the notation changed to "gender and science" instead. At the operational side, regarding the project such as INTEGER, this was going along with a shift to no more funding strategies to 'fixing the number of women employed in science, research and innovation', as well as 'fixing institutions', aiming at reorganisation concepts for science and research institutions to amend "gendered" organisational structures to achieve research excellence by gender mainstreaming.

The need of integrating the gender dimension by addressing the gender as basic analytical category for science remained a challenge had been emerging in SiS. For the upcoming agenda for the SwafS work programme, technology and innovation policies could aim at overcoming this gap by addressing gender biased or gender blind framings and methodologies in science and research.

### **DISSEMINATION AND ENGAGEMENT ACTIVITIES AIMED AT TRANSFERRING THE PROJECT RESULTS TO WIDER COMMUNITIES**

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As presented in the Description of Work, the INTEGER project consortium originally aimed at disseminating the TAP methodology and instrument at conferences, organising workshops and providing resources on websites (including those of the project partners) and safeguard the translation of some of the developed resources to enable a larger EU-audience to gain access to the project results. Moreover, special media events and communication workshops were planned to be implemented in order to feed project information to the general public into external networks through media sources like radio and newspapers.

With respect to the seminars envisaged for three European regions (UK, Western and Eastern Europe), the consortium published a report stressing that "these three dissemination seminars offer each partner the opportunity to stress key issues in their respective region/ country and to showcase the INTEGER approach as a conceptual framework to follow and build on. And confirm the INTEGER partners as key actors regarding structural change to gender equality in science and research at the national and European level" (INTEGER 2015). A project website was realised and hosting main project results and contact information. The project website included a virtual toolbox that can be used by other (academic, non-academic) organisations that aim to mainstream gender equality issues in their organisation. The final project dissemination report lists close to 100 different dissemination activities including presentations at conferences and newspapers articles, which relate to the main theme of the project, gender equality in particular in the STEM disciplines.

### **PROJECT IMPACTS**

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Three partners of the project consortium belong to the top 1% in terms of centrality as beneficiaries in European Framework programme 7. These are the Centre de la Recherche Scientifique CNRS in France, the Leibniz Institute in Germany as well as the TCD. The Bradford College and the Siauliai Universitetas do not belong to the top 10% regarding network centrality. It was not possible to assess the higher education attractiveness of the partners involved in the INTEGER project, for which the University ranking index of the University of Leiden is applied, nor the business attractiveness index. Generally, given the excellent positions of the three science, research and technology organisations in European Research, a high impact in terms of disseminating information and knowledge can be assumed.

In terms of scientific impact, the INTEGER project facilitated the publication of at least one academic paper (see Lauricikas & Macaitiene 2013), which was cited once. The latter assessment was based on google scholar search. As mentioned earlier, the final project report lists some 100 dissemination activities including the participation at conferences or writing of newspaper articles addressing the general public. With respect to the social media impact of the project, the analysis shows 36 posts between March 2011 and March 2016, which equals a posting every two months. A more in-depth analysis may support to identify project challenges for achieving a higher representation in social media.

A project-integrated evaluation was carried out by GESIS. In the three partner organisations, where TAPs were developed, the impact of the implementation of the TAPs were assessed. Many actions recommended by the TAP were established during the project and will endure beyond its duration. Enhanced capacities were built-up in partner organisations, structural changes effected and a proceeding commitment of the management recognising additional benefits like enhanced reputation and profile but also improved research quality and competitiveness in the European Research Area (ERA).

Together with other FP7-projects related to gender equality and mainstreaming INTEGER can be regarded as having paved the way for further EU and member state activities in the field of gender equality in science and research and technology and higher education organisations. For instance, the INTEGER projects precedes the 2011 European Commission's report on "Structural change in research institutions: Enhancing excellence, gender equality and

efficiency in research and innovation.” However, even the final project report claims to have this pioneering role, it fails to deliver dedicate evidence that INTEGER has been the main driver for gender equality policy actions in the science and research, technology and engineering and higher education area at the European and the member states policy level.

### PATH-BREAKING ADVANCEMENTS

According to the project-integrated evaluation, structural change towards gender equality has been initiated in three main European science, research and technology organisations. These organisations project beneficiaries. It would be interesting to transfer the conceptual framework and methodology of the TAPs to other science, research and technology and higher education organisations and assess the impacts in these settings.

### BEST PRACTICES

None.

### EU ADDED VALUE OF THE PROJECT

The INTEGER project provides significant European added value. One of the largest European science, research and technology organisations (CNRS) and two science and higher education institutions, one of them in Ireland and the other in Lithuania developed and implemented transformational action plans (TAPs) for structural change to foster gender equality in science, research and higher education organisations. A conceptual framework to develop and implement these TAPs was jointly designed and the framework applied in organisations in three European member states. In each regional context particular strategies and measures to improve gender equality were outlined and realized. TAPs are supposed to address also country-specific gender-issues. With a platform approach knowledge exchange among the project partners and with additional stakeholders was organized, for example, in three regional seminars addressing. The wider public was addressed by media release in the web, radio and newspapers.

### PARTICIPANTS AND RESEARCH TEAM

#### Participants

Number of participants: 5

Number of countries involved: 5

	Type	Country	Role	Previous participations in FP
CENTRE NATIONAL DE LA RECHERCHE SCIENTIFIQUE	REC	FR	Coordinator	1524
Trinity College Dublin	HES	IE	Participant	209
GESIS - LEIBNIZ INSTITUT FÜR SOZIAL-WISSENSCHAFTEN e.V.	REC	DE	Participant	12
SIAULIU UNIVERSITETAS	HES	LT	Participant	8
BRADFORD COLLEGE	HES	GB	Participant	1

### DELIVERABLES AND PUBLICATIONS

#### Project deliverables

- Periodic report: [http://cordis.europa.eu/publication/rcn/15978\\_en.html](http://cordis.europa.eu/publication/rcn/15978_en.html)
- Results in brief: [http://cordis.europa.eu/result/rcn/166165\\_en.html](http://cordis.europa.eu/result/rcn/166165_en.html)
- Periodic report 2: [http://cordis.europa.eu/result/rcn/161274\\_en.html](http://cordis.europa.eu/result/rcn/161274_en.html)
- Periodic report (full): [http://cordis.europa.eu/publication/rcn/15978\\_en.html](http://cordis.europa.eu/publication/rcn/15978_en.html)
- Final report: [http://cordis.europa.eu/result/rcn/182534\\_de.html](http://cordis.europa.eu/result/rcn/182534_de.html)

#### Related publications

- Laurincikas, Antanas; Macaitiene, Renata; (2013). Joint universality of the Riemann zeta-function and Lerch zeta-functions, INST MATHEMATICS & INFORMATICS  
[https://www.openaire.eu/search/publication?articleId=webcrawl\\_\\_\\_\\_\\_:e1d52a97c8d17fb13a91d50426596453](https://www.openaire.eu/search/publication?articleId=webcrawl_____:e1d52a97c8d17fb13a91d50426596453)

### MAIN SOURCES

eCORDA  
CORDIS database  
OPENAIRE database  
Project deliverables  
Project's description of work  
Project's Final Report





## Gender and Science: FP6 Related to SaS

## **QUALITY IN GENDER+ EQUALITY POLICIES "QUING"**

**Framework Programme: FP6 related to SAS**  
**Dimension: GENDER AND SCIENCE**  
**Tool: Integrated Projects**  
**Project Call For Proposal: FP6-2004-CITIZENS-4**  
**Status: -**  
**Total cost: 4.742.114**  
**Total EU funding: 3.978.276**  
**Website: <http://www.quing.eu/>**  
**Period: 01/10/2006-31/03/2011**  
**Subjects: Social Aspects**  
**Project ID and Acronym: ID: 28545, ACRONYM: QUING**

### **BACKGROUND AND CONTEXT OF THE PROJECT AND STRATEGIC NEEDS**

At the time of the project, there was no adequate knowledge of the overall and specific quality of gender equality policies and the intersections between gender and other inequalities across the European Union. There was a clear need to improve the gender+ equality knowledge which referred to policy on gender equality that recognised that gender inequality was connected with other inequalities. Furthermore, there was a lack of venues, channels and materials to provide policy makers with improved gender+ equality knowledge. To fill those knowledge gaps and to identify the existing inequality intersections, an assessment and a comprehensive conceptual framework were needed.

### **SPECIFIC PROJECT OBJECTIVES**

The QUING project aimed to improve the quality of gender+ equality policies in the EU and its candidate countries. Therefore, the specific objectives set by the project were clustered into four sets and outlined as follows:

- The first set dealt with the conceptualisation of inclusive gender+ equality policies (1-4):
  - Conceptualising the relationships between different inequalities, especially between gender, race/ethnicity, religion, class and sexuality;
  - Conceptualising and mapping the interfaces between civil society and policymaking;
  - Conceptualising participatory forms of gender and diversity mainstreaming by accentuating voice and civil society interfaces;
  - Conceptualising and mapping civil society texts on gender+ equality;
- The second set focused on the content and quality of current gender+ equality policies and practices (5-7):
  - Assessing the quality of gender+ equality policies in the EU's multicultural context;
  - Assessing the standing and voice of civil society in gender+ equality policies;
  - Explaining variations, deficiencies, deviations and inconsistencies in EU and member states' gender+ equality policies;
- The third set contributed to social science theory delivering concepts typologies and other theoretical/empirical contributions (8-9):
  - Developing an institutional approach to practices of citizenship;
  - Developing a typology of gender regimes in Europe;
- The last objective aimed to actively contribute to the further quality of policymaking on gender via high quality standards:
  - Defining more inclusive standards for gender+ expertise.

The project's specific objectives were relevant for:

- **ERA:** the project contributed to the ERA priority 'Gender equality and gender mainstreaming in research' (point 2.4) as intended to tackle the loss and inefficient use of highly skilled women deriving from their underrepresentation in research and leading positions. Furthermore, it also contributed to the establishment of the ERA by involving researchers with country expertise for the data gathering and analysis and by applying the principle of multinational teams in the consortium composition.
- **Innovation Union:** the objectives set by the project contributed to the IU objective 'Delivering the European Research Area' (point 2.2.) by gathering EU-wide information and data on gender+ equality policies and practice in place. The documentation and research activities on gender equality across Europe supported the IU overarching objective 'Strengthening the knowledge base and reducing fragmentation' providing extended

common knowledge for better policy making. Finally, good practices from some MS could be used for benchmarking thus, strengthening competitiveness for excellence in Europe.

### **SaS/SiS Programme objectives/Activity lines**

Despite the project was not funded under the SaS programme, it was relevant to achieve some programme objectives. In detail, QUING contributed to the objective of boosting gender equality in research, mainly through fostering the integration of the gender dimension throughout European research. The project research activity was specifically aimed at developing a better understanding of the gender issue in scientific research. To make an improvement in the content and quality of gender equality policies across Europe, the project planned to carry out an in-depth, comparative and intersectional research on gender related issues. Finally, the dynamic dialogue between civil society, researchers and policy makers was essential to properly complete the project and to embed gender equality in different fields.

### **SaS Action Plan**

The project was relevant to produce gender equality in science which was a key objective of the SaS Action Plan and related actions (Action 24-27). In line with the Plan, the project supported specific research to improve the understanding of the relation between gender and science issues in Europe and to develop tools to support the policy process.

## **PROJECT RESULTS AND OUTCOMES**

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### **Main achievements according to Project objectives**

Against the specific objectives set, the project main achievements could be summarised as follows:

- 5 integrated research activities: LARG&WHY generated and gathered new concepts, knowledge and understanding on current practices on gender equality policies across Europe; FRAGEN gathered documentation of gender equality policies; STRIQ produced knowledge to address gender inequality in policy making; OPERA provided training for gender+ equality through standards and materials.
- 4 different thematic issues tackled by the project in its analytical parts:
  - General gender+ equality policies (including institutional arrangements): analysis of debates on creation, restructuring and reform of the institutional architecture for gender equality and contributions to gender+ equality policies through theory and policy recommendations; Mapping of the range of inequalities addressed by gender equality policies in 29 countries, compared to the 6 tackled in the EU regulations confirming the wide variety of cases across Europe.
  - Non-employment: Studies of inequalities in the non-employment policy field to identify groups of women regarded as legitimately non-employed both within countries and between countries in relation to several factors (e.g. material status, sexual orientation, ethnicity, religion). A large comparative analysis was also performed on the variety and gendered quality of leave regulations in the studied countries and across the EU using fuzzy-set ideal types to grasp the variety. Despite the legislative progress, the traditional division of gender roles prevailed on the universal caregiver model.
  - Intimate Citizenship: Analysis of exclusions based on gender in intimate citizenship issues (mainly in reproductive rights and partnership regulations). Those policies were closely linked to other policy domains such as Non-employment and Gender-based Violence. The gendered exclusions negatively impacted the quality of such policies and obstructed progress in gender+ equality.
  - Gender-based Violence: intended as any form of violence against women, or in which women disproportionately suffer. The studies carried out found that the intersection of such violence with other inequalities added further complexity to gender equality policy development and that the responsibility to reduce and eliminate gender-based violence was shared between the EU and MS.
- Theoretical contributions to debates on intersectionality, state-civil society interface, the quality of gender+ equality policy as well as the processes of Europeanisation and gender knowledge transfer;
- Policy recommendations, distinguishing between: recommendations for gender+ equality policies in the context of Europe; recommendations for research and for gender training addressing many actors at different levels of politics and policymaking at EU, MS and civil society level;
- OPERA referred to the part of the project dedicated to the actual work of 'doing gender+ equality'. It established the need for quality in gender+ training as a fundamental component for gender mainstreaming strategies and integrated intersectionality in training. In so doing, it defined inclusive standards intended as

the capacity of a training to tackle complex situations of inequality and also to identify intersecting inequalities;

- Total 2 public databases (one of important feminist texts in Europe and the other of gender trainers, now based at EIGE<sup>36</sup>).

As measurable results, the project led to the delivery of 35 academic papers, 8 books, 29 country-specific reports, 30 integrative papers and 67 articles.<sup>37</sup> As regards the degree of effectiveness, the main scientific objectives of solidifying the knowledge gathered on gender+ policy frames and practices and developing conceptual tools were achieved. The 2010 Consolidated report assessed as 'satisfactory' the progress made by the project as a whole and ranked QUING as 'Good to excellent project' due to the full achievement of its objectives and technical goals even beyond the initial expectations.

### **Main obstacles**

The main challenge encountered during the project lifespan was the change of a partner which slowed down the FRAGEN part. It was solved thanks to a rescheduling which allowed to respect the general time frame and resources allocated for the project. A major concern was also how to ensure a proper dissemination of the project outputs among state-level authorities.

### **Main achievements according to Programme objectives**

The expected results in SaS were to attain a lively policy debate at national or regional level and an improved understanding of women participation in science. The project outcomes contributed to the same scope. QUING promoted linkages between theoretical framework, policy and civil society (feminist and other movements) in order to feed a constructive dialogue. It conceptualised the notion of inclusive gender+ equality policies referring to policies that were not biased towards other inequalities but rather considered other inequalities where they intersected with gender inequality. The comprehensive approach applied by QUING allowed to effectively address multiple inequalities thus, fostering equal treatment beyond diversity in society. Such neutrality was desirable in the European multicultural contexts, in line with the SaS programme goals in the field of gender.

### **Main achievements according to SaS dimensions**

The QUING project was related to the 'gender and science' dimension of SaS due to the core focus on gender equality. As pioneer in the field of gender issues, the project addressed concerns and questions on gender+ ('gender plus') equality policy. In line with the SaS trend, QUING did not directly train female researchers to raise their participation and representation in leading positions but rather, it focused on knowledge production for policy makers and authorities. The project applied a broader concept of gender equality, as part of a more complex equality architecture which encompassed different inequalities and it adopted gender mainstreaming as the strategy for better policy. As acknowledged by the project (DoW), gender mainstreaming did not just entail to gender the political agenda and institutions and to promote the active role of civil society, but it also require the inclusion of gender experts in the policy making process. Such strategy was directly implemented in the project consortium, by giving women the lead of all the five project strands.

Furthermore, the project also contributed to the public engagement SaS dimension by generating knowledge for better policies on active citizenship as well. The project assessed the role of feminist movements in the creation of frames on gender equality based on the assumption that gender mainstreaming in the EU could not be implemented without a 'velvet triangle' of feminist bureaucrats, trusted academics and women's movement.

Finally, as part of the project the OPERA activity was strictly related to the SaS dimension of science literacy and specifically to education. Its focus on training, training standards, curricula, student monitoring and self-evaluating systems put the project in line with the SaS trend from conventional to a participatory model of education.

## **DISSEMINATION AND ENGAGEMENT ACTIVITIES AIMED AT TRANSFERRING THE PROJECT RESULTS TO WIDER COMMUNITIES**

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The dissemination and exploitation of the results of the project were given a high priority. For instance, OPERA training activities were expected to exploit 'the best means possible to ensure the use of the knowledge and the tools generated within the project'<sup>38</sup>. In addition, the project final reports, conferences, databases, publications about the project (e.g. conference papers, lectures, journal articles and books) were foreseen as means to transfer the project

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<sup>36</sup> The European Gender Institute in Vilnius (EIGE).

<sup>37</sup> The complete list of academic publications is available on the QUING website at <http://www.quing.eu>.

<sup>38</sup> QUING Description of work (2006), page 21.

results. Regular press releases was expected to be issued to generate interest. The dissemination plan targeted researchers, policy makers, civil society and concerned organisations to promote and develop the results further.

In line with the Description of Work, the main dissemination means adopted by the project included:

- The QUING website (<http://www.quing.eu>) consisting of a public and an internal part, regularly updated in its contents with hyperlinks to other relevant websites on policy making, feminist movements and civil society;
- Several QUING publications, including research reports, proceedings of national and international conferences, workshops and meetings;
- Individual dissemination by all members of the QUING consortium through written material, participation to events and press releases (18);
- The Activity OPERA, targeting mostly policy makers but also feminist bureaucrats, academics and the women's movement (also known as the 'velvet triangle');
- the FRAGEN database of original texts on gender+ equality frames from feminist movements in Europe (available at <http://www.fragen.nu/aletta/fragen>);
- The OPERA database of gender+ trainers and training covering 400 trainers from 29 QUING countries providing training to public officials either individually or within organisations and additional contacts from collaboration with TARGET project;
- National events to present the project results and policy recommendations (e.g. Labs' ('Werkstattgespräche') at Humboldt University Berlin, 2010; QUING Workshop on 'Gender Plus: Gleichstellungspolitik im intersektionellen Kontext' at IWM, Vienna, January 31, 2011);
- International conferences to present comparative and policy recommendations for EU and national policy (e.g. ECPR General conference in Pisa in September 2007; International Women's World conference in Madrid in July 2008);
- OPERA Conference held in Madrid in February 2011 involving over 120 participants.

Overall, the QUING dissemination strategy generated knowledge for teaching, future research, and coalitions with civil society. Differently from the expectations, the three originally foreseen final conferences were merged into a unique larger one to achieve a proper dissemination of the project results within the time and resources available.<sup>39</sup> Furthermore, three groups of reports (30 country context studies, 30 issue histories, and 30 STRIQ reports) which were not planned as public documents- were made public by the Consortium.<sup>40</sup> In terms of degree of achievement, the project was active in disseminating research findings and in fostering the debate beyond the gender research community. Therefore, the dissemination material produced by the project after over the course of 4, 5 year existence was significant and ensured an extended ground for future uptake and exploitation.

## PROJECT IMPACTS

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The QUING project was expected to have long-term positive impacts on: the achievement of the equality between women and men in relation to a broader goal of social cohesion; the empowerment of women by counterbalancing technocratic tendencies; the development of innovative combinations of expertise and democratic voice in policy making. Looking at the project consortium, more than half of the participants were in the top10% of the most central organisations in the whole FP and 3 universities of that fraction reached the top 1% (betweenness centrality). In addition, the Radboud University Nijmegen appeared in the Leiden ranking for its scientific attractiveness (place 163). Their involvement in the project consortium increased the potential impacts of the project due to their centrality and attractiveness underlying a higher ability to diffuse project information and results.

Based on the available information, only a part of the potential project impact could be identified. By integrating the attention to different axis of inequality in the policy discourse tackling gender inequality and by providing high quality standards for the training of civil servants, the project contributed to increase the quality of policymaking on gender in a multicultural context. The involvement of high quality partners and civil society allowed making a step towards gender+ equality policy making strengthening EU democracies and governance. The project actual impacts could be outlined as follows:

- **Scientific impact:** There were total 3 publications related to the project and total 100 citations. The scientific echo was high;

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<sup>39</sup> QUING Consolidated report (16/11/2008 – 15/11/2009).

<sup>40</sup> The decision was taken at the Management Meeting in Budapest (October 2009).

- **Social media impact:** total 18 posts were reported in the Social media listening buzz results meaning that the project had a high impact on social media for its attractiveness and core subjects;
- **Institutional and organisational impact:** The project led to the establishment of working collaborations and networks within academia, and between academics, civil society actors and state actors; the QUING network actively disseminated its work and research results, at the national and international level, and among all stakeholders (including researchers) concerned with gender equality policies. The team members carried out their work on the QUING database after the end of the funding period in 2011. In fact, the QUING consortium continued to function as a network through the website, using the mailing lists for connections and communications after the end of the project.<sup>41</sup>
- **Policy impact:** the project contributed to policy development in a twofold way: by generating knowledge on multiple inequalities in policy making; by improving understanding of the role and modalities of intervention of the civil society in policy making. The project carried out research activities in EU-27 plus Turkey and Croatia producing documentation for practical use by policy makers and consulting key policy actors to ensure consistency with policy developments. QUING contributed to improve the **quality of policymaking on gender and citizenship** in a multicultural context by providing high quality standards and recommendations for training and dissemination of feminist heritage. It also researched on multiple discrimination and interpretations of gender equality thus contributing to a better understanding of gender issues across all the countries. For instance, QUING research led to a follow-up project in NL on the integration and participation of marginalised men (funded by the Oranje Fonds foundation).

#### **PATH-BREAKING ADVANCEMENTS**

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The QUING project adopted an 'integrated approach' to gender+ equality issues combining theory, policy, training and practice. The project gathered extended data sources and information on approaches to gender and forms of inequality in all the MS of the European Union plus Turkey and Croatia. The project carried out an intersectional and multidisciplinary research to explore the different factors impacting the quality and content of gender equality policies. As underlined in the final report "While the idea of gender intersecting with other axes of inequality is not new, analysing whether and how this is taken into account in policy and the practical implications is rather innovative". Grounded in intersectionality theory, the QUING project used comparative analysis to generate new theory and new ideas to improve the quality of gender+ equality policies and practices applied at EU and national level.

#### **BEST PRACTICES**

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Synergies with other ongoing major EU-funded, national and international projects were strongly supported during the project lifespan. QUING consortium members met representatives of other EU-funded projects by participating in:

- A panel with FEMCIT, RECCON, and EUROSPHERE at the Women's World Conference in Madrid, July 2008;
- A seminar and workshop of the GARNET Network of Excellence, July 2007 and December 2008;
- Joint workshops with the TARGET project at Berlin, Nijmegen, Boston, and Madrid, May 2008, November 2008, March 2009, and June 2009;
- A panel discussion in the final conference of genderace, June 2010;
- Discussions in the EUROSPHERE Conference "The Publics of Europe and the European Public Sphere: Tracing the Architects and Trespassers of Borders and Boundaries in Europe", November 2010;
- A workshop on Gender Research in the CZ and SK, Prague, April 19, 2011. The meeting involved scholars participating in the projects KNOWING and FEMCIT, as well as in a Czech project.

Plans to engage in closer collaborations with other European gender projects building on contacts established were announced in the project final report. As good practice in the gender dimension, the OPERA team (part of the Consortium) signed an agreement on transfer the *Gender+ Trainers Database* to the EIGE<sup>42</sup> in March 2011. The hand-over of the database to the Institution was intended to translate the knowledge generated by the QUING project into gender training for all actors in policy making in order to contribute to increase the quality of gender equality policies

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<sup>41</sup> Further information available on the QUING website at <http://www.quing.eu>.

<sup>42</sup> The European Institute for Gender Equality (EIGE) was established in 2006 with the mission to contribute to and strengthen the promotion of gender equality including gender mainstreaming in all Community policies and the resulting national policies, and the fight against discrimination based on sex to raise EU citizens' awareness of gender equality. The similarity of objectives with the QUING project provided the ground for coordination in action.



in MS, in the EU and in candidate countries. The database was the first step towards the creation of the first community of practice in gender+ training in the EU.

### **EU ADDED VALUE OF THE PROJECT**

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Despite the progress made in equality policies at EU level, there was no extended knowledge of directions taken by each Member State. The lack of an overview of the extent to which gender equality was integrated with other sources of inequality posed threats to the effectiveness of adopted national policies. While the United Kingdom and Ireland were at the forefront in 'integrating' institutional mechanisms to tackle various inequalities, other countries kept mechanisms and policies separated targeting just single problems. By covering all Europe, two candidate and two accession countries, the project provided an EU-wide overview of the current state (different speeds and current bias) of gender+ equality policies and practices. QUING provided an extended knowledge of the existing variety in gender equality national policies, as well as, inclusive standards to disseminate gender+ expertise and foster harmonisation in gender equality practices among national authorities. Each part of the project provided added value. For instance, before OPERA, gender training was an underexplored area and any advances made in terms of quality were the result of the practical struggles by individual gender trainers and organisations.<sup>43</sup> By creating a critical mass of gender+ trainers, OPERA defined a basis for conceptual reflection on gender+ training and for quality and curriculum standards.

### **PARTICIPANTS AND RESEARCH TEAM**

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#### **Participants**

Number of participants: 12

Number of countries involved: 12

	Type	Country	Role	Previous participations to FP
INSTITUT FUR DIE WISSENSCHAFTEN VOM MENSCHEN	REC	AT	Coordinator	2
CENTRAL EUROPEAN UNIVERSITY BUDAPEST FOUNDATION	HES	HU	Participant	1
ENTHOVEN ASSOCIATES DESIGN CONSULTANTS	IND	BE	Participant	1
NATIONAL CENTRE FOR SOCIAL RESEARCH	REC	GR	Participant	1
ORTA DOGU TEKNIK UNIVERSITESI	HES	TR	Participant	31
PEACE INSITUTE	REC	SI	Participant	1
STICHTING KATHOLIEKE UNIVERSITEIT	HES	NL	Participant	1
UNIVERSIDAD COMPLUTENSE DE MADRID	HES	ES	Participant	49
UNIVERSITY CLINICS CHARITE, HUMBOLDT UNIVERSITY	HES	DE	Participant	20
UNIVERSITY OF LANCASTER	HES	GB	Participant	1
UNIVERSITY OF UMEA	HES	SE	Participant	1
ZENSKA INFOTEKA	REC	HR	Participant	1

#### **Team Composition**

Team Size: members\*

GENDER		
Female	Male	Unknown

<sup>43</sup> QUING FINAL REPORT (2011). Page 62.

Stock-taking and meta-analysis of Science in Society projects throughout FP6 and FP7  
Final Case Studies

92,0%		8,0%		0,0%	
<b>SENIORITY</b>					
Average		Junior		Senior	
0,0%		4,0%		96,0%	
<b>PhD</b>					
No			Yes		
38,0%			63,0%		
<b>BACKGROUND</b>					
Applied Sciences	Health Sciences	Humanities & Social Sciences	Natural Sciences	Unknown	
0,0%	5,0%	42,0%	8,0%	10,0%	

\*The data are based on the analysis of the provided project's Description of Work.

### DELIVERABLES AND PUBLICATIONS

DELIVERABLE NO.	DELIVERABLE NAME	DUE DATE OF DELIVERY (month)	ACTUAL SUBMISSION DATE: (month)
D1	Report on the Launch Workshop	2	
D2	Description of research teams with particular country expertise	2	
D3	Project Management Structure	3	
D4	Project intranet and website	3	
D5	International Advisory Board	3	
D6	Dissemination and exploitation plan	3	
D7	Guidelines for preparing the state of the art report in LARG	3	
D8	State of the art report	6	
D9	Frame and Voice Analysis methodology manual	7	
D10	Sampling guidelines manual	7	
D11	LARG-Country reports' methodology manual	7	
D12	Review of the literature on gender equality policies in the EU and its Member States	8	
D13	Report (theory) on intersectionality	8	
D14	Research guidelines for the analysis of intersectionality elements in LARG and WHY	8	
D15	LARG research guidelines	8	
D16	Questionnaire to assess existing and past training experiences national, regional and local institutions	8	
D17	LARG-Training Workshop report	9	
D18	Report on the STRIQ- Methodology Workshop	9	
D19	Series of timelines of policy debates in selected topics	10	
D20	Manual for the methodology of 'discursive institutionalism'	11	
D21	Manual for the selection of texts	11	
D22	Comparative study methodology manual for LARG	11	
D23	Country study methodology manual for WHY	11	
D24	Comparative study methodology manual for WHY	11	
D25	Materials, guidelines and contents for the expert meeting	11	
D26	Database on relevant gender training experts	12	
D27	Database manual including technical format and descriptive guidelines	12	
D28	Guidelines for the preparation of reports in FRAGEN	12	
D29	Report on gender training in all countries	12	
D30	Report on LARG-Interim Workshop	13	
D31	Report on WHY-Interim Workshop	13	
D32	Report of the expert meeting to discuss gender	13	

DELIVERABLE NO.	DELIVERABLE NAME	DUE DATE OF DELIVERY (month)	ACTUAL SUBMISSION DATE: (month)
	<i>training methodology, curricula, and experiences</i>		
D33	<i>List of documents for coding</i>	14	
D34	<i>Selection and training of a group of subcontractors</i>	14	
D35	<i>FRAGEN-Training Workshop report</i>	14	
D36	<i>Quality assurance guidelines for the work in FRAGEN</i>	14	
D37	<i>Guidelines for the selection of pilot countries</i>	14	
D38	<i>Report on STRIQ-Interim Workshop</i>	18	
D39	<i>Report on the Methodology Workshop</i>	18	

### PUBLICATIONS

Publications no.	PUBLICATION	LINK (when available)
1	<i>M. Forest, M., Lombardo, E. (2012). The Europeanization of Gender Equality Policies: A Discursive-Sociological Approach</i>	<a href="http://www.tandfonline.com/doi/pdf/10.1080/08038740.2010.498326">http://www.tandfonline.com/doi/pdf/10.1080/08038740.2010.498326</a>
2	<i>Lombardo E. &amp; Rolandsen L. (2012). Framing Gender Intersections in the European Union: What Implications for the Quality of Intersectionality in Policies?</i>	<a href="http://sp.oxfordjournals.org/content/19/4/482">http://sp.oxfordjournals.org/content/19/4/482</a>
3	<i>Kvist, E. &amp; Peterson, E. (2010). What Has Gender Equality Got to Do with It? An Analysis of Policy Debates Surrounding Domestic Services in the Welfare States of Spain and Sweden</i>	<a href="http://link.springer.com/chapter/10.1057/9780230355378_1">http://link.springer.com/chapter/10.1057/9780230355378_1</a>

### MAIN SOURCES

QUING Deliverable No. 82/84: National and International Meetings (2011)  
 QUING Consolidated report (16/11/2008 – 15/11/2009)  
 QUING Annex I - "Description of Work"  
 QUING (2011) Final Review

### WEBSITES

Research Results: <http://www.quing.eu/content/view/34/52/>  
 Research results by country: <http://www.quing.eu/content/view/34/52/>  
 Final Report: [http://www.quing.eu/files/QUING\\_Final\\_Report\\_Jan%2012.pdf](http://www.quing.eu/files/QUING_Final_Report_Jan%2012.pdf)

## **EUROPEAN POLICY CO-OPERATION OF WOMEN AND SCIENCE "EOWIN"**

**Framework Programme: FP6 related to SAS**  
**Dimension: GENDER AND SCIENCE**  
**Tool: Specific Support Actions**  
**Project Call For Proposal: ERA-NET/1/CA-SSA**  
**Status: -**  
**Total cost: 139.750**  
**Total EU funding: 139.750**  
**Website: Website not available**  
**Period: 01/01/2004-28/02/2005**  
**Subjects: Social Aspects - Governance of research**  
**Project ID and Acronym: ID: 510184, ACRONYM: EOWIN**

### **BACKGROUND AND CONTEXT OF THE PROJECT AND STRATEGIC NEEDS**

Women represented more than half of Europe's undergraduate population, but only 10% held senior positions in academic research and even less in industry. Women under-representation in scientific careers and decision-making bodies resulted in a loss of potential. There was a strong need for increasing women participation in European research in order to reach the "talent pool" essential for the establishment of the European Research Area. The EOWIN project provided a response to this challenge by boosting policy cooperation in the field of "women and science".

### **SPECIFIC PROJECT OBJECTIVES**

The EOWIN project aimed to co-ordinate the different national and regional programmes on the promotion of women in science to establish a **European network of national policies**, for the subsequent transition to a full ERA-NET. Steps towards a future ERA-Net included:

- The exchange of information on existing structures for national promotion of women in science;
- The identification and definition of different (but also overlapping) coverage and focus of partners' programmes;
- The naming of people responsible for the different topics of the future ERA-NET;
- The identification of experts in the field;
- The development of the necessary actions/steps and an adequate schedule to reach ERA-NET.

The project's specific objectives were relevant for:

- **ERA** The project supported the establishment of a competitive European Research Area by addressing the disproportion of women in scientific careers and the waste of women talent. In line with the ERA priority "gender equality and gender mainstreaming in research", EOWIN aimed to contribute to a better promotion of women by stimulating the co-ordination of programmes and joint policies at national/regional level. Consequently, the project also supported the ERA priority "optimal transnational co-operation and competition" by helping participating countries to compare and benchmark their policies;
- **Innovation Union** The project aimed to promote excellence through mainstreaming gender equality into national policies and structures. The IU objective "delivering the European Research Area" (point 2.2) required Member States to adopt a common approach to ensure gender balance in research careers. In fact, enhancing women potential was deemed essential to meet national R&D targets and for the EU to become the most competitive knowledge-based economy of the world. The project leveraged on national governments to push measures that would reinforce the role of women scientists, thus maximising the possible excellence for Europe's competitiveness.

### **SaS/SiS Programme objectives/Activity Lines**

The project was not funded under the SaS programme but it was relevant for the achievement of the programme objectives related to women and science. In detail, EOWIN contributed to boost gender equality in research, mainly through fostering the integration of the gender dimension throughout European research. Such goal could be achieved by establishing a European network of national policies and by ensuring a constant flow of information on national initiatives in the field of gender equality. The project planned to involve a wide range of current and potential partners in the future ERA-NET. As announced in the Description of Work, "all relevant groups of the society" would be informed about the progress and achievements of the growing network with the aim to improve the links between science and society across Europe. Therefore, the project also supported the overarching SaS priority "Stepping up the Science/Society Dialogue".

### **SaS Action Plan**

The project contributed to the SaS Action Plan objective of producing gender equality in science. In detail, the Plan called for specific measures to address the under-representation of women in science and the poor consideration of gender differences within research (Actions 24-27). By establishing an ERA-NET in the field of Women and science, the project contributed to address such problems. Through a transparent consultation between administrators and civil society for the promotion of gender equality, EOWIN could also support the Plan effort to bring science policy closer to the citizens.

## **PROJECT RESULTS AND OUTCOMES**

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### **Main achievements according to Project objectives**

Due to the lack of final reports on the project, it is possible to rely just on the foreseen results of the project.

The consortium planned to carry out a survey study of the structures and programmes for the promotion of women in science. In order to exchange the information collected, each of the participating countries was requested to summarise key national features in a paper to be presented in a specific workshop. During the workshop the participants could exchange information and practices and, thanks to the data collected through the survey, define topics for the future ERA-Net. The contacts between the participants could continue via email after the project ending.

### **Main achievements according to Programme objectives**

Due to the lack of final reports on the project, it is possible to rely just on the foreseen results of the project.

The project planned a series of preparatory activities to create the necessary framework conditions to improve the situation of women scientists. To establish a fully functioning network, the project concentrated the co-operation efforts at a national and regional strategic level between those responsible for the programmes and the societal actors through sharing of information and practices.

### **Main achievements according to SaS dimensions**

The EOWIN project was related to the '**gender and science**' SaS dimension due to the focus on the promotion of women scientists. By stimulating cooperation, coordination and comparison of national and regional infrastructures, the project contributed to integrate the gender dimension into national research policies and programmes. In line with a mature concept of the dimension, the project adopted gender mainstreaming to improve national strategies for the promotion of women scientists. The exchange of good practices, the sharing of information and the benchmarking of national policies were the main tools to achieve the set goals. Finally, EOWIN operated pressures on the institutions to empower women role in science so as to promote a change in the institutional settings.

## **DISSEMINATION AND ENGAGEMENT ACTIVITIES AIMED AT TRANSFERRING THE PROJECT RESULTS TO WIDER COMMUNITIES**

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The project dissemination strategy was based on ensuring full availability of achieved results to all current and future ERA-NET partners. The dissemination plan foresaw to spread results at every stage of the SSA collaboration to attract and commit potential partners to the network goal as well as preparing newcomers for their partnership in ERA-NET.

## **PROJECT IMPACTS**

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The EOWIN project was expected to have positive impacts on women's scientific careers and on the development of the ERA as a whole. The establishment of the ERA-Net in the field of women and science was intended to pool together the governmental strategies and policies in participating countries to enhance the chances of women in S&T careers. With regard to the **potential policy impacts**, the EOWIN activities were meant to lead to the opening of national policies towards international approaches to be more effective. By involving many potential partners of the ERA-NET across Europe, the project aimed to shape a European approach to the promotion of women in science.

Looking at the project participants, the German Aerospace Centre was in the top 1% of the most central organisations in the overall FP while the Research Council of Norway was in the top 5% (*betweenness centrality*). The centrality of the consortium partners allowed to increase the expectations of positive impacts.

Due to the lack of final report, it is impossible to identify and classify the project actual impacts.

## **PATH-BREAKING ADVANCEMENTS**

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None.

## **BEST PRACTICES**

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The project planned to establish a co-operation with the members of the Helsinki Group, which could provide contacts of future potential partners willing to join and thereby add value to EOWIN.

## EU ADDED VALUE OF THE PROJECT

Participating countries had already existing structures and programmes to promote women in science and technology. However, such national structures mainly operated at national or regional level under different political, social and economic framework conditions. The EOWIN project grouped parts of national and regional programmes together in order to pool forces and to create a common knowledge basis for joint policies in the field of women and science. The intensified cooperation between key players and the comparison of strategies between different operational levels from various backgrounds, allowed to identify the best structures and strategies for benchmarking and to select good practices to share. Consequently, EOWIN paved the way to the harmonisation and reinforcement of national policies. It also added value to each single national programme, policy and infrastructure by lifting their operational potential to an international/European level.

## PARTICIPANTS AND RESEARCH TEAM

### Participants

Number of participants: 3

Number of countries involved:3

	Type	Country	Role	Previous participations to FP
GERMAN AEROSPACE CENTER (DEUTSCHES ZENTRUM FÜR LUFT UND RAUMFAHRT)	REC	DE	Coordinator	1
RESEARCH COUNCIL OF NORWAY	REC	NO	Participant	36
MINISTERE DELEGUE A LA RECHERCHE	OTH	FR	Participant	1

### Team Composition

Team Size: members\*

GENDER				
Female	Male		Unknown	
100,0%	0,0%		0,0%	
SENIORITY				
Average	Junior		Senior	
0,0%	0,0%		100,0%	
PhD				
No	Yes			
100,0%	0,0%			
BACKGROUND				
Applied Sciences	Health Sciences	Humanities & Social Sciences	Natural Sciences	Unknown
0,0%	0,0%	100,0%	0,0%	0,0%

\*The data are based on the analysis of the provided project's Description of Work.

## DELIVERABLES AND PUBLICATIONS

DELIVERABLE NO.	DELIVERABLE NAME	DUE DATE OF DELIVERY (month)	ACTUAL SUBMISSION DATE: (month)
D 1.1	Identification of New Partners for the consortium	12	
D 1.2	Establishment of Consortium structures for the future ERA-Net	12	
D 2.1	Workshop, discussion guidelines	6	
D 2.2	Participants papers	6	
D 3.1	List of Topics	6	

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<i>DELIVERABLE NO.</i>	<i>DELIVERABLE NAME</i>	<i>DUE DATE OF DELIVERY (month)</i>	<i>ACTUAL SUBMISSION DATE: (month)</i>
<i>D 3.2</i>	<i>Assignments to partners</i>	<i>6</i>	
<i>D 4.1</i>	<i>Work packages for the intended ERA-Net</i>	<i>12</i>	

**PUBLICATIONS**

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EOWIN Project Sheet (2003)

**MAIN SOURCES**

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EOWIN Annex I - "Description of Work" (2003)



## **INTEGRATION OF FEMALE IMMIGRANTS IN LABOUR MARKET AND SOCIETY. POLICY ASSESSMENT AND POLICY RECOMMENDATIONS "FEMIPOL"**

**Framework Programme: FP6 related to SaS**  
**Dimension: GENDER AND SCIENCE**  
**Tool: Specific Targeted Research Projects**  
**Project Call For Proposal: FP6-2004-SSP-4**  
**Status: -**  
**Total cost: € 1 179 832.00**  
**Total EU funding: € 998 514.00**  
**Website: <http://www.femipol.uni-frankfurt.de/>**  
**Period: 01/02/2006 – 31/01/2008**  
**Subjects: -**  
**Project ID and Acronym: ID: 22666, Acronym: FEMIPOL**

### **BACKGROUND AND CONTEXT OF THE PROJECT AND STRATEGIC NEEDS**

The majority of migrant women who came to the old immigration countries of Northern and Western Europe in the 1950's, 60's and 70's were able to integrate into regulated labour markets. In contrast, in many European countries recent female immigrants find openings mostly within informal labour markets: domestic services, sex industries, agriculture and tourism. An increasing diversity of new female migrants in terms of legal status and rights may be observed, as they enter European countries in the process of family reunion or family formation, as asylum seekers, labour migrants, tourists or as illegal migrants.

*Integration of female immigrants in labour market and society; policy assessment and policy recommendations* (see [www.femipol.uni-frankfurt.de/](http://www.femipol.uni-frankfurt.de/)) is a Specific Targeted Project (STREP) funded under Framework 6 and running from 1st of February 2006 to 31st of March 2008. (Contract no. 022666). It includes eight partners from European countries: Germany UK, France, Italy, Slovenia, Poland, Greece, and Cyprus. Its focus is to analyse the impact of social policies on the integration processes of new female migrants while taking into account the integration strategies of the female migrants and to formulate policy recommendations for better policies.

The main objectives of FeMiPol were **to assess policy implementation and impact, and to formulate suggestions for policies that enhance integration and social cohesion**. Central to such recommendations were issues relating to the integration of illegal migrants. The comparative analysis of the impact of legalization processes that are already effective in different European countries offered the basis for formulating solutions to this central policy dilemma.

The project explored the outcomes of social policies, particularly with regard to migration and integration for the social position of migrant women. A special focus was on migrant women who came in the last decade of the twentieth century to the EU countries. The analysis includes third country nationals and former third country nationals. The analysis of integration processes, as well as the analysis of the impact of policy on these processes, therefore focuses not only on barriers to social integration and their removal, but also on migration and integration strategies and the life plans of female migrants.

### **SPECIFIC PROJECT OBJECTIVES**

In particular, the project aimed to:

- Gather the scattered information about the policies affecting the lives of female migrants and to offer a knowledge base of national reports on this issue
- Provide knowledge on the process of policy formation and policy implementation
- Give an overview of the processes of dispersion of new migrants
- Explore the demand side of the female migration flows and the structure of the labour markets for female migrants
- Deliver knowledge on the long-term impact of integration policy on its recipients
- Gain access to the perspective on conflicts not only of the female migrants, but also of the social service officers, and thus analyse the mechanisms and dynamics structuring the micro level of policy implementation

The EU understanding of integration processes focuses on integration as a "dynamic, two-way process of mutual accommodation by all immigrants and residents of Member States" (Commission of the European Communities 2005). In this way, the Commission brings both the immigrants' own efforts for integration into the fore and the social policy aspects. In the spirit of this understanding, the FeMiPol project adopted *an agency-sensitive concept* of social integration that makes the social actor visible and takes into account the processual character of integration and its interrelation with broader biographical processes.

By trying to explore and organise the knowledge on the integration of female immigrants in labour market, that also includes women scientists, the project was indirectly connected to Commitment 1 of Innovation Union (Member State strategies for researchers' training and employment conditions should take into consideration gender and dual career considerations) and ERA objectives. The mobility of scientists within the EU and the exchange of scientists (female and male) between member states is an essential part of the ERA.

### **SaS/SiS Programme objectives/Activity lines**

The project was indirectly related to the following SaS SiS activity line: "to boost gender equality in research, through stimulating the participation of women in science and technological development; thus fostering the integration of the gender dimension throughout European research." However, it did not focus on developing specific actions, but rather on assessment of the situation, in particular with regards of integration of migrant women into the scientific labour market.

### **SaS Action Plan**

The FeMiPol project was gathering data on women migrants and their integration, in science labour market in particular. Thus, it was directly connected to Action 25 of SaS Action Plan: Monitor progress towards gender equality in European Scientific Research.

## **PROJECT RESULTS AND OUTCOMES**

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### **Project objectives**

- The project delivered an analysis of main elements of the integration dilemma in European societies: the demand for migrant women's labour, the policies of controlling migration without effecting integration, the high integration potential of migrant women
- The final report of the project "Integration of female immigrants in labour market and society. Policy assessment and policy recommendations" delivered recommendations for better integration policies as a result of a *cross national analysis of the collected data* was conducted in the last phase of the project.
- The mapping of policies and the analyse of their objectives were assembled in a document analysis
  - 66 *expert interviews* were conducted in each national case for gaining insights into the implementation of policies. Interview partners were policy makers, administrators and members of law enforcement agencies at national and local levels, as well as NGO activists engaged in the support of female migrants.
  - 26 *focused narrative interviews with social service officers* were conducted, revealing their experiences in interactions with migrant women
  - 196 *biographical narrative interviews* with migrant women who entered the EU countries under consideration in the last 15 years were conducted and analysed. A minimum of 5 (in Sweden, Spain, and Portugal) to 20 (in the UK, France, Germany, Italy, Greece, Slovenia, Poland and Cyprus) biographical interviews per national case have been conducted.

### **Main achievements according to Programme objectives**

In the FP6 "Gender and Science" Work Programme 2004, several goals are set concerning the empowerment of women such as promoting the enhancement of the Gender Watch System and associated activities to promote gender equality throughout the European Research Area. This could have been achieved through practical tools for mainstreaming and monitoring gender equality, and the development and implementation of tools applicable to European research for mainstreaming the gender dimension, and for monitoring its integration. By the structuring data and realizing a comparative analysis of the data on female immigrants and their integration in the EU data on, the project contributes to the enhancement of the Gender Watch System. FeMiPol also contributes to another objective of work programme of develop a better understanding of the gender issue in scientific research, and this also something the project worked on.

### **Main achievements according to SaS dimensions**

The project contributed to the development of Gender dimension and its main policy objectives: to integrate women in all areas, to eliminate barriers for women, to take into account their needs and interests.

More specifically, it focused on taking account of women immigrant's situation and needs as far as integration in the labour market is concerned. Though the project covered the overall labour market, it can be argued that the findings and recommendations will also contribute to the future policies in the area of science and immigrant female scientist.

## **DISSEMINATION AND ENGAGEMENT ACTIVITIES AIMED AT TRANSFERRING THE PROJECT RESULTS TO WIDER COMMUNITIES**

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The project conducted foreseen dissemination activities:

- **IT & Website:**

- 3 Newsletters
- Project public website
- Project logo
- **Events:**
  - Seminar (Paris, France) – 24.04.2007: *Migrations, mobilités transnationales et genre*
  - International Conference (Krakow, Poland) – 15-16 November 2007: *Among Us or Close to Us? The Female Immigrants' Situation in Poland in the Context of Polish and European Migration Policy*
  - Final project conference (Brussels, Belgium)- 31 March 2008: *Integration of Female Immigrants in Labour Market and Society. Policy Assessment and Policy Recommendations. A Specific Targeted Research Project of the 6th Framework Programme of the European Commission.*
  - 5 workshops:
    - 26-28 May 2006 (Frankfurt am Main): *Policies affecting female migrants in Europe*
    - 20-22 October 2006 (Protaras, Cyprus): *Biographical policy evaluation: The method*
    - 28-30 June 2007 (Ljubljana, Slovenija): *Comparative analysis and policy recommendations*
    - 6 March 2008 (London, UK): *The UK and Sweden Workshop on Integration of Female Immigrants in Labour Market and Society: Policy Assessment and Policy Recommendations*
    - 10 March 2008 (Frankfurt am Main, Germany): *Migration policy and gender in the German context*
- **Mass media and Publications**
  - 23 Publications
  - 4 Policy briefs

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## PROJECT IMPACTS

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### Potential impact

This project developed new perspective towards transnational cooperation of participating organizations - they developed new skills and new knowledge.

The project was able to involve very central organisations that participated to a lot of projects with other organisations involved very frequently in the FPs.

The most central (top 1%) was the University of Florence. Then came in the top 5% the Oxford Brookes University and the Uniwersytet Jagielloński. They all have the capacity to diffuse and spread information and knowledge, which means that the study's results were more likely to be diffused.

The other participating organisations were the Centre for Research on Women's Issues, Institut für Sozialforschung (IfS) an der Johann Wolfgang Goethe-Universität, Intercollege of Cyprus, The Peace Institute / Mirovni Institut. They are peripheral, which means their impact might be less important than the ones described earlier.

Furthermore, one of the participating universities was highly ranked in the University ranking provided by the Centre for Science and Technology Studies (CWTS) of the Leiden University: the University of Florence at position 400.

### Actual impact

- **Scientific impact**
  - Project obtained tangible scientific impact though limited in scope. Two scientific papers related to the project were published. The first one, "Negotiating the Social Citizenship Rights of Migrant Domestic Workers: The Right to Family Reunification and a Family Life in Policies and Debates" brought 7 citations in Google Scholar. The second one, "Women in new migrations. Current debates in European Societies", had a higher impact, with 20 citations. In addition, 20 publications related to the results obtained from the national cases were published in scientific journals and 3 books have been published as a direct result of the project.
- **Social impacts**

The project didn't produce any social media buzz. However, it can be argued that three conferences and five workshops organised, together with numerous interviews performed generated further social impact.
- **Institutional and organisational impact**

A range of activities were planned with the aim to mobilise existing networks of the partners and establish new network relations. The 8 partners of the project contacted institutions and organizations in their respective countries in order to inform them about the Project and involve them in the Project networking activities.

- **Policy impact**

By questioning the opposition of social exclusion and integration, the project's goal contributed to current debates on migration and integration of immigrants, especially female immigrants, in national and European contexts. It also provided important insights into the dynamics of integration at the interface between policy and agency.

Policy developments in this field would benefit from the research results. The project could also contribute to the development of policy on the level of the social adaptation of migrants, and to policies dealing with the illegal stay and work of migrant women in European societies. OSCE (organization for Security and Cooperation in Europe) made a guide for gender sensitive policies (migration policy) as well as the guidelines on the basis of the results of the study were made. For example, the guidelines focused on migrant domestic workers, prostitutes and victims of trafficking.

4 Policy Briefs were written to inform policy makers, academics and the general public on key results of the FeMiPol project. In the final report, FeMiPol gave the following recommendations for better integration policies:

- Create immigration channels in order to offer chances of legal immigration and limit informal labour markets;
- Re-examine policies which downsize the welfare system, such as support for the unemployed and care provisions – Decouple integration policies and control objectives;
- Enable utilization of human capital and educational resources – offer language courses;
- Strengthen civil society agents;
- Reevaluate, formalize and professionalize domestic and care work and open options to exit the sector
- Empowerment through rights for migrant women working in prostitution;
- Combat trafficking and safeguard human rights by empowerment through rights.

### **PATH-BREAKING ADVANCEMENTS**

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The method used itself was very innovative and productive, though time consuming. It combined the issue of policy analysis and biographical analysis: political biographic analysis. Concerning the sample drawn for the biographical interviews, the project focused especially on the categories of migrant domestic and care workers, migrant prostitutes and victims of trafficking. As reported in the project documents, although there is research on different aspects of their life experiences, none of these groups had been studied before specifically in relation to integration processes.

### **BEST PRACTICES**

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The methodology developed during the project was very effective to the point that it was further implemented by similar projects funded under Horizon 2020.

### **EU ADDED VALUE OF THE PROJECT**

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The EC and European partners also promoted the project internationally. The qualified and varied participation to the roundtables is likely to be a consequence of the EU support. As a result, European policy makers took part in the interviews and roundtables, as well as administrators and members of law enforcement agencies at national and local levels, and NGO activists engaged in the support of female migrants.

### **PARTICIPANTS AND RESEARCH TEAM**

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#### **Participants**

Number of participants: 8

Number of countries involved: 8

	<i>Type</i>	<i>Country</i>	<i>Role</i>	<i>Previous participations to FP</i>
<i>Centre for Research on Womens Issues</i>	<i>OTH</i>	<i>GR</i>	<i>Participant</i>	<i>1</i>
<i>Institut fur Sozialforschung of Johann Wolfgang Goethe</i>	<i>HES</i>	<i>DE</i>	<i>Coordinator</i>	<i>1</i>

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	Type	Country	Role	Previous participations to FP
Universität Frankfurt am Main				
Intercollege, Cyprus	HES	CY	Participant	1
Oxford Brookes University	HES	GB	Participant	6
The Peace Institute / Mirovni Institut	REC	SI	Participant	1
Université Paris X Nanterre	HES	FR	Participant	1
University of Florence	HES	IT	Participant	37
Uniwersytet Jagiellonski	HES	PL	Participant	1

### Team Composition

Team Size: 40 members\*

GENDER				
Female		Male		Unknown
78%		23%		0%
SENIORITY				
Average		Junior		Senior
13%		13%		75%
PhD				
No			Yes	
30%			70%	
BACKGROUND				
Applied Sciences	Health Sciences	Humanities & Social Sciences	Natural Sciences	Unknown
3%	0%	95%	0%	3%

\*The data are based on the analysis of the provided project's Description of Work.

### DELIVERABLES AND PUBLICATIONS

#### Project deliverables

Del. no.	Deliverable name	Workpackage no.	Date due	Actual delivery date
1	Mapping and analysing policies affecting female migrants	1	1 February 2007	15 March 2007
2	National reports on key informant interviews	2	1 February 2007	15 March 2007
3	Statistics on female migration in European countries	3	1 February 2007	15 March 2007
4	National reports on labour markets demand for female migrants	4	1 February 2007	15 March 2007
5	State of the Art	4	1 February 2007	15 March 2007
6	Manual on the research design	5	1 February 2007	15 March 2007
7	National reports on the analysis of the biographical interviews	6	31 March 2008	31 March 2008
8	National reports on social policy implementation	7	31 March 2008	15 April 2008
9	Final report "Integration of female immigrants in labour market and society. Policy assessment and policy recommendations"	8	31 March 2008	31 March 2008
10	Report on networking and local workshops	9	31 March 2008	31 March 2008
11	Project Coordination	10	31 March 2008	15 May 2008

Milestone no.	Milestone name	Workpackage no.	Date due	Actual delivery date
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1	1 <sup>st</sup> Workshop: Overview on the policies affecting female migrants/ Sampling the expert interviews	1	1 February 2007	15 March 2007
2	Manual of the research design	5	1 February 2007	15 March 2007
3	2 <sup>nd</sup> Workshop: Harmonizing the methods of analysis and research procedures	6	1 February 2008	20-22 October 2006
4	3 <sup>rd</sup> Workshop: "Comparative analysis and Policy Recommendations". Planning project publications and the European Conference.	8	-	28-30 June 2007

### Related publications

- Working Papers: products of the work packages of the FeMiPol project and reflect the ongoing work
- Book: "Women in New Migrations. Current Debates in European Societies"
- 4 Policy Briefs: to inform policy makers, academics and the general public on key results of the FeMiPol project
- November 2006: "New Migration and Integration Policies in European Countries and their Impact on Female Migrants"
- March 2008: "Spain: Migration Policy and Debates"
- March 2008: "Labour markets for female migrants: an overview in selected EU countries"
- April 2008: "Final Project Policy Brief"
- 23 publications presenting the results obtained from the national cases in scientific journals and edited books:
- Partner 1: Institute of Social Research, Frankfurt/Main, Germany
  - 2008 - Maria Kontos "Policies and the crisis of the care system. The German case" In Campani G. (ed.) *Genere e globalizzazione*, ETS, Pisa, (forthcoming).
  - 2008 - Maria Kontos "The concept of integration in the study of female migration" In Eleni Parzarzi (ed.) *Studies on Gender*, Athens (forthcoming)
- Partner 2: Oxford Brookes University, UK
  - 2010 - Anthias Floya: 'The nation, transnationalism and intersections of belonging', in: Pat Hill-Collins and John Solomos (eds.): *Handbook of Race and Ethnic Studies*. London: Sage.
  - 2009 - Anthias Floya and Maja Cederberg: 'Narratives of ethnicity, resources and social capital', *Journal of Ethnic and Migration Studies*
  - 2009 - Anthias Floya: 'Belonging, identity, intersectionality, and translocational positionality', in: Gabriele Rosenthal and Arthur Bogner (eds.): *Ethnicity, Belonging and Biography: An Ethnographical and Biographical Perspective*. Lit publishing Co.
- Partner 3: Université Paris X Nanterre France
  - 2008 - Morokvasic M: *Migration and mobility in enlarged Europe*, (ed. with Metz-Göckel S& Müntz S.) Barbara Budrich Publishers. Opladen; Farmington Hills,
- Partner 4: University of Florence, Italy
  - 2008 - Giovanna Campani (ed.) "Migranti nel mondo globale", Sinnos editrice, Roma
  - 2008 - Campani G. (ed.) *Genere e globalizzazione*, ETS, Pisa, (forthcoming). Tiziana Chiappelli "Storie di donne migranti tra mondi vicini e lontani" in "Genere e globalizzazione"
- Partner 5: The Peace Institute, Institute for Contemporary Social and Political Studies
  - 2008 - Pajnik, Mojca. 2008. Das framing des menschenhandels in der slowenischen Presse, In Jürgen Nautz and Birgit Sauer, eds. *Frauenhandel: Diskurse und Praktiken*, 123–140. Göttingen: V&R Unipress.
  - 2008 - Pajnik, Mojca and Urša Kavčič. 2008. Sodne prakse s področja trgovanja z ljudmi in prostitucije v Sloveniji (Legal Practices from the Fields of Trafficking in Human Beings and Prostitution, In Slovene). *Revija za kriminalistiko in kriminologijo*, forthcoming, June 2008.
  - 2008 - Pajnik, Mojca. 2008. Prostitution and Trafficking in Human Beings: Perspectives of Gender, Work and Migration. (Slovene-English). Ljubljana: Peace Institute, forthcoming in autumn.
  - 2008 - Pajnik, Mojca and Urša Kavčič. 2008. Discussing the Demand behind Trafficking in Human Beings. In Aino Saarinen and Marina Calloni, eds. *Eastern European Women Immigrants as "Constructors" of a*

"New Europe". Gender Experiences and Perspectives in the Northern, Central and Southern / South-Eastern Trans-regions (tentative book title), forthcoming in winter.

- Partner 6: Institute of Sociology, Jagiellonian University, Krakow
  - 2008 - Slany, Krystyna; Ślusarczyk, Magdalena (2008) Immigrants in Poland. Legal and socio-demographic situation [in:] S. Metz-Göckel, M. Morokvasic, D.Kałwa, S. Münst (eds.) Migration and mobility in enlarged Europe. A gender perspective", Opladen, Verlag Barbara Budrich (forthcoming)
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  - 2008 - Maria Liapi, "Coping strategies and life plans of migrant women: constraints and chances" in "Gender and migration", (Metahmio) (forthcoming)
  - 2008 - Maria Liapi "Life strategies of self employed migrants: intragenerational and gender aspects of quality of life" in annual edition of the National Institute of Migration Policies (IMEPO), forthcoming.

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## MAIN SOURCES

eCORDA  
CORDIS database  
OPENAIRE database  
Project deliverables  
Project's description of work



## Civil Society and Citizen Participation: Science and Society

## **SCIENTIFIC ADVICE FOR FISHERIES MANAGEMENT AT MULTIPLE SCALES** **"SAFMAMS "**

**Framework Programme: FP6**

**Action line/Part: PART A: BRINGING RESEARCH CLOSER TO SOCIETY**

**Activity: 4.3.1 Governance and Scientific advice**

**Area: 4.3.1.2 Encouraging the active participation of society at large in policy development**

**Dimension: CIVIL SOCIETY AND CITIZEN PARTICIPATION**

**Tool: Specific Support Actions**

**Project Call For Proposal: FP6-2003-SCIENCE-AND-SOCIETY-7**

**Status: Closed**

**Total cost: € 690,120**

**Total EU funding: € 690,120**

**Website: <http://www.fishsec.org/fish-focus/completed-projects/safmams/>**

**Period: 15/04/2005 - 14/04/2008**

**Subjects: Structural links and actions for interactive communication with citizens on scientific opinions; spread of good practices.**

**Project ID and Acronym: ID: 13639; ACRONYM: SAFMAMS**

### **BACKGROUND AND CONTEXT OF THE PROJECT AND STRATEGIC NEEDS**

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There is a disconnection between fisheries and broader issues in marine environmental policies. The Common Fisheries Policy is considered to be the most science-dependent common policy framework in the EU. Its objective is the sustainable exploitation and equitable distribution of a resource that is constantly changing due to human exploitation and to natural factors.

EU fisheries are going through a period of change, with the European Commission in need of accurate assessments of the state of fish stocks in order to manage them effectively. A move occurred towards the greater involvement of stakeholders in providing advice on fisheries' management (currently provided through the International Council for the Exploitation of the Seas), with a move also towards management on a more regional scale. A need exists to ensure that the process of reform results in a more effective system of fisheries management, leading to more sustainable fisheries. One aspect of this process of reform is to improve the relationship between fishers, fishery managers and those providing expert advice on the fisheries.

### **SPECIFIC PROJECT OBJECTIVES**

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#### **Project objectives**

The objective of the SAFMANS project – Scientific Advice for Fisheries Management At Multiple Scales – was twofold:

- To draw insights from existing research projects and management processes on the most useful forms of scientific advice for marine environmental management and;
- To communicate those insights to scientists and decision makers.

The project aimed at **outlining the forms which such advice could take, with a description of the circumstances under which these forms are useful and cost effective**. In this view, the project considered the following three specific objectives:

- Gather information relevant to the forms that scientific advice can and should take from research projects focused on fisheries management;
- Interact with stakeholders involved in fisheries management decision making at various scales to help sharpen the practical lessons from the research results;
- Carry lessons learnt from fisheries to the broader marine management community including various levels of government, user groups and marine conservation NGOs through networking and dissemination activities.

It was expected that the fulfilment of these objectives would help to address the disconnection that currently exists between fisheries and broader issues in marine environmental policies.

The project was undertaken by seven partners from the academics and fisheries ecosystems of four European Member States (Denmark, the United Kingdom, Sweden, Estonia). It was coordinated by the Institute for Fisheries Management in Denmark.

#### **SaS/SiS Programme objectives/Activity Lines**

The SAFMANS project was designed **to foster the connection between fisheries and marine environmental policies** which therefore contribute to "examine systematically the various components of 'science and governance' in order to create conditions under which policy decisions are more effective in meeting society's needs, more soundly

based in science and at the same time taking account the concerns of civil society" (corresponding to the first SaS specific objective). And more specifically, the project participated to "creat[e] a more dynamic interface between science and policy making (area line 4.3.1.1) through the elaboration of forms that could take advice to be the most useful and cost effective. Similarly, the project took part at the ERA deployment as it contributed to developing "a common system of scientific and technical reference for policy implementation".

### **Innovation Union objectives**

Since the SAFMAMS project aimed at drawing insights from existing research projects and management processes on the most useful form of scientific advice for marine environmental management, its objectives were in line with the Innovation Union objective of strengthening the knowledge base and reducing fragmentation in the EU.

### **European Research Area (ERA) objectives**

As one of the project general objectives consisted in bringing research closer to marine environmental policies, it was in line with the ERA priority of building more effective national research systems.

### **SaS Action Plan**

As the project was designed around the objective of bridging fisheries and policy-makers, SAFMAMS was relevant to the civil society and citizen participation dimension in SaS. More specifically, the SAFMAMS project objectives were in line with specific actions falling under the Science and Society action plan, which promoted more diversified forms of reciprocal exchange of information. The development of regular confrontational events such as stakeholders' workshops at EU and regional level for the identification of best practices was coherent with Action 20 (relating to the organisation of local and regional dialogues on Science Society). Moreover, the project was coherent with Action 23 with public discussions organised, as well as Action 30 due to the identification and sharing of best practices through research and workshops contributing to the establishment of open dialogues.

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## **PROJECT RESULTS AND OUTCOMES**

### **Project objectives:**

The project delivered the following outputs:

- **Best practices** for the provision of scientific advice to fisheries management at the European Community, the local and shared sea levels;
- **Policy Briefs on research priorities** and on the Forms of Fisheries Management Advice as well as practical scientific advice for marine environmental management which reported primarily on lessons learnt from the workshops held. This aimed to contribute to developing practical mechanisms to improve the ways that scientific advice is communicated to decision-makers as well as stakeholders and to strengthen the use of science to support policy in the EU;
- **Reviews** about scientific advice and international management regimes, science and stakeholders involvement in the production of management advice and the role of science in cooperative fisheries management;
- **A book** entitled "The paradoxes of Transparency: **Scientific** Institutions **and** the Ecosystem Approach to Fishery Management in Europe" ;
- **A series of workshops** were organised to discuss best practices and policy briefs (i.e. a workshop was held on "Reversing the burden of proof for fisheries management").

These outputs were the results of the achievement of the specific objectives set out in the project's Description of Work, with all objectives reported to have been achieved.

### **Main achievements according to Programme objectives**

The SAFMAMS project results were in line with the "Scientific advice, governance and reference systems" dimension of FP6. Indeed, with its best practices produced in order to help the management of fisheries at the sub-national, European and shared-sea levels, as well as its policy briefs, workshops and book, the project helped create "a more dynamic interface between science and policy making" (4.3.1.1). With regard to the programme's expected impact which was to create science based policymaking which includes the active participation of citizens in policy development, the SAFMAMS project contributed to this impact through the creation of policy briefs, identification of best practices and organisation of workshops with the inclusion of civil society

### **Main achievements according to SaS Dimensions**

Since the SAFMAMS project organised workshops in order to discuss best practices and policy briefs, it contributed in one of the objectives of the "Civil society and citizen participation" dimension of FP6 which consisted in encouraging reciprocal information exchange between science, science policy and civil society. Workshops aiming at developing best practices at the EU and regional level with the participation of different stakeholders (for example, the Estonian Marine Institute) also encouraged a **more inclusive involvement of civil society representatives**.

## **DISSEMINATION AND ENGAGEMENT ACTIVITIES AIMED AT TRANSFERRING THE PROJECT RESULTS TO WIDER COMMUNITIES**

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The following actions were undertaken to disseminate project results and engage with stakeholders.

- Organisation of a series of **stakeholder workshops** in which best practices and policy briefs were discussed. Two main types of workshops were carried out:
  - At EU level, a workshop named "the Science and Policy Day" was held at DG Fisheries in Brussels on 21 Mars 2007. It addressed 20 people (composed of scientists and representative of the fisheries community) to discuss positive experiences with science and policy, goals for the future, bottlenecks and constraints;
  - At the regional level three workshops with the Northern European Regional Advisory Councils (RACs) - the Pelagic RAC, the North Sea RAC and the Baltic Sea RAC - were also organised. The aim of these workshops was to discuss what 'perfect advice system' might look like and consider wider changes that would give the RACs greater confidence in the scientific advice on fisheries.
- Elaboration of a website enabling the project team to communicate on their project.

On the basis of the collected documents, it can be considered that the dissemination plan as described in the Description of Work was achieved and all planned deliverables completed.

## **PROJECT IMPACTS**

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### **Potential impacts**

Project partners outlined a number of potential policy impacts in the project's description of work: The SAFMANS project's primary impact was expected to be the **improvement of the practical usefulness to policy makers and managers of the scientific advice received**. This impact was expected to be achieved through the dissemination of policy briefs and through the development of a network that includes the main actors involved in providing scientific advice. It was expected that such a network would be built through SAFMANS project partners and would follow through to International Council Exploration of the Sea (ICES), a central clearing house for information about both fisheries and the broader marine ecosystem.

Potential impacts can be further assessed through the following indicators:

- **Betweenness centrality:** Only one institution out of the seven participating in the project were in the top 1% most central institutions in FP6;
- **Scientific attractiveness:** Two institutions out of the seven participating were ranked in the Leiden university ranking: the University of Gothenburg ranked 287th and the University of Tartu ranked 558th;
- **Business attractiveness:** No participants from SAFMANS were ranked amongst the biggest R&D investors having participated in SaS. This can notably be explained by the fact that participants were mainly universities and research institutes.

### **Actual impact**

Beyond expectations, the SAFMANS project actual impacts can be classified into:

- **Scientific impact:** The implementation of the SAFMANS project enabled to deepen the knowledge related to fisheries management through the elaboration of best practices and policy briefs. The results of which contributed to in particular the drafting of book "the paradoxes of transparency" written by Douglas Clyde Wilson (Deliverable n°10). Furthermore, at least three publications were edited: "Fisheries policy, research and the social sciences in Europe: Challenges for the 21st century", "Participatory Modelling in EU Fisheries Management" and "Setting an agenda for social science research in fisheries policy in Northern Europe" and all these papers has been quoted at least 20 times. That supposes a quite important scientific impact.
- **Institutional and organisational impact:** The production of best practices for the provision of scientific advice to fisheries management at sub-national, European Community and the shared sea levels was expected to have on impact to related institutions and organisations. However, no data can be found.
- **Policy impact:** The SAFMANS aimed at developing scientific advice for policy. The publication of the book "The paradoxes of transparency: scientific institutions and the ecosystem approach to fisheries management in Europe" written by Douglas Clyde Wilson, contributed to achieve this objective. However, as no data can be found regarding the extent to which results are disseminated and used by policy makers, the importance of the policy impact cannot be assessed.
- **Social impact:** No relevant social impacts were identified in relation to social media. That can be partially explained by the state of the technology at the time of project implementation.

### PATH-BREAKING ADVANCEMENTS

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None.

### BEST PRACTICES

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None.

### EU ADDED VALUE OF THE PROJECT

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As underlined by project participants<sup>44</sup>, the Common Fisheries Policy (CFP) is one of the most-science dependent common policy framework in the European Union. Therefore implementing the project at the EU level was considered to be appropriate. The consortium is composed by seven institutions that have experience with relevant research projects from four different member states (Denmark, Estonia, the United Kingdom and Sweden). Regarding the funding, the project is fully financed by the sixth Framework Programme.

### PARTICIPANTS AND RESEARCH TEAM

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#### Participants

Number of participants: 7

Number of countries involved: 4

	Type	Country	Role	Previous participations to FP
THE INSTITUTE FOR FISHERIES MANAGEMENT AND COASTAL COMMUNITY DEVELOPMENT	REC	DK	Coordinator	8
ESTONIAN MARINE INSTITUTE, UNIVERSITY OF TARTU	HES	EE	Participant	1
INTERNATIONAL COUNCIL FOR THE EXPLORATION OF THE SEA / BALTIC SEA REGIONAL PROJECT	OTH	DK	Participant	1
FISKESEKRETARIATET/THE FISHERIES SECRETARIAT	OTH	SE	Participant	1
DANISH PELAGIC PRODUCER ORGANISATION	N/A	DK	Participant	1
LOUGHINE LIMITED	OTH	UK	Participant	1
GOETEBORG UNIVERSITY	OTH	SE	Participant	77

#### Team Composition

Team Size: 9 members\*

GENDER		
Female	Male	Unknown

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<sup>44</sup> SAFMANS CONSORTIUM (2004), Annex 1 – « Description of Work ».

Stock-taking and meta-analysis of Science in Society projects throughout FP6 and FP7  
Final Case Studies

33,0%		67,0%		0,0%	
<b>SENIORITY</b>					
Average		Junior		Senior	
0,0%		11,0%		89,0%	
<b>PhD</b>					
No			Yes		
56,0%			44,0%		
<b>BACKGROUND</b>					
Applied Sciences	Health Sciences	Humanities & Social Sciences	Natural Sciences	Unknown	
0,0%	0,0%	22,0%	44,0%	11,0%	

\*The data are based on the analysis of the provided project's Description of Work.

### DELIVERABLES AND PUBLICATIONS

DELIVERABLE NO.	DELIVERABLE NAME	DUE DATE OF DELIVERY (month)	ACTUAL SUBMISSION DATE: (month)
D1	Review of scientific advice and international management regimes	18	-
D2	Review of science and stakeholder involvement	18	-
D3	Review of role of scientific advice in cooperative fisheries management	12	-
D4	Best practice local level	24	-
D5	Catalogue of marine environmental management organisations	18	-
D6	Best practices at the European Community level	36	72
D7	Horse Mackerel participatory modelling	30	72
D8	Best practices at the shared sea level	36	-
D9	Policy brief fisheries management advice	36	-
D10	Book of paradoxes of transparency	36	37
D11	Policy brief on forms of practical scientific advice for marine environmental management	36	-

Publications no.	PUBLICATION	Number of citations
	David Symes, Ellen Hoefnagel (2010), <i>Fisheries policy, research and the social sciences in Europe: Challenges for the 21st century</i>	42
	Troels Jacob Hegland, Douglas Clyde Wilson, <i>Participatory modelling in EU fisheries management: western horse mackerel and the Pelagic RAC</i>	26
	Julie Urquhart, Tim Acott, Matt Reed, Paul Courtney (2011), <i>Setting an agenda for social science research in fisheries policy in Northern Europe in Fisheries Research</i>	37

### MAIN SOURCES

The main sources of information for this project were:

The eCORDA;

CORDIS database;

OPENAIRE database;

SAFMAMS CONSORTIUM (2005). A review of scientific advice and international management regimes

SAFMAMS CONSORTIUM (2005). Review of science and stakeholder involvement

SAFMAMS CONSORTIUM (2005). Review of role of scientific advice in cooperative fisheries management

SAFMAMS CONSORTIUM (2005). Best practice local level

SAFMAMS CONSORTIUM (2005). Catalogue of marine environmental management organisations

SAFMAMS CONSORTIUM (2007). Best practices at the European Community level.

SAFMAMS CONSORTIUM (2007). Horse Mackerel participatory modelling

SAFMAMS CONSORTIUM (2005). Best practices at the shared sea level

SAFMAMS CONSORTIUM (2005). Policy brief fisheries management advice

SAFMAMS CONSORTITUM (2008). Book of the paradoxes of transparency

SAFMAMS CONSORITUM (2005). Policy brief on forms of practical scientific advice for marine environmental management.



## **PARTICIPATORY SCIENCE AND SCIENTIFIC PARTICIPATION: THE ROLE OF CIVIL ORGANISATIONS IN DECISION MAKING ABOUT NOVEL DEVELOPMENTS IN BIOTECHNOLOGIES "PSX2"**

**Framework Programme: FP6**  
**Action line/Part: PART A: BRINGING RESEARCH CLOSER TO SOCIETY**  
**Activity: 4.3.1 Governance Scientific advice**  
**Area:-**  
**Dimension: CIVIL SOCIETY AND CITIZEN PARTICIPATION**  
**Tool: Coordination Actions**  
**Project Call For Proposal: FP6-2005-SCIENCE-AND-SOCIETY-19**  
**Status: Closed**  
**Total cost: € 434 332.00**  
**Total EU funding: € 434 332.00**  
**Website: <http://www.fondazioneirittigenetici.org/psx2/psx2/>**  
**Period: 01/02/2007 – 31/07/2008**  
**Subjects: Social Aspects**  
**Project ID and Acronym: ID:44594 ACRONYM: PSX2**

### **BACKGROUND AND CONTEXT OF THE PROJECT AND STRATEGIC NEEDS**

The issue of biotechnologies is very topical. Starting in the mid-1990s, a chain of events that made the media headlines sparked an intense debate over the character and safety of the EU food system. Bovine spongiform (BSE) was the contextual and defining event that, followed by other issues of animal health and food safety, shaped the controversy. Food and food production in all its complexity, together with food scandals, played an important role in shaping the strong opposition that Europeans have today to genetically modified products (Bauer & Gaskell 2002).

The issue of novel biotechnologies is not only an expanding area of scientific research, but also provides a very important area for undertaking social experimentation in more active citizenship and a deeper involvement of the lay public in European research activities.

### **SPECIFIC PROJECT OBJECTIVES**

#### **Project objectives:**

The objectives of the PSx2 project were to bring research closer to society and to increase the societal relevance of scientific research through the promotion of public participation in European research activities. PSx2 aimed to create a dialogue between specialised Civil Society Organisations (CSOs) and scientific actors that were engaged in the field of biotechnology research governance, particularly regarding Genetically Modified Organisms (GMOs), as well as to act as a bridge between the scientific world and the general public.

The project had the following specific objectives:

- To identify a shared definition of "participation in science" among the partners in order to clearly define the focus of investigation;
- To elaborate a qualitative study on the European CSOs' activities enhancing public participation in science and research in the field of biotechnological research and governance, with a focus on GMOs;
- To identify a sample of Best Practices (from information gathered on the CSO activities through the questionnaires) enhancing public participation in science and research.
- To produce a Manual of Best Practices for Participatory Science, resulting from an intensive peer review activity, involving scientific partners, both from the network and outside it, then constituting a first concrete example of operative dialogue;
- To disseminate the results of the analysis within the project network and to a broader range of stakeholders (other CSOs, scientific institutions, national and local authorities).

#### **SaS/SiS Programme objectives/Activity Lines**

The project consisted in working on bringing society and science closer which therefore contributed to "promote better public awareness of scientific and technological advances and their possible implications, and a wide understanding of

scientific and innovation culture (third SaS specific objectives). More specifically, the project participated to “promoting the ‘embedding’ of science and society issues across the Framework Programme” (area line 4.3.6.1).

The project was also in line with the Activity’s Objectives<sup>45</sup>. Firstly, the project aimed at developing a bridge between the scientific world and the general public, including CSOs, and indeed fostered and encouraged their inclusive participation. Secondly, this connection contributed to the improvement of conditions under which policy decisions in multi-level governance are more effective in meeting society's needs, through the dissemination of outputs among stakeholders and authorities at local and national level.

### **Innovation Union objectives**

Since the project aimed to enhance public participation in European research activities by creating a dialogue between CSOs and scientific actors, its objectives were consistent with the Innovation Union objective of strengthening the knowledge base and reducing fragmentation in Europe.

### **European Research Area (ERA) objectives**

As the project aimed to create a dialogue between specialised Civil Society Organisations (CSOs) and scientific actors engaged in the field of biotechnology research governance, its objectives were in line with the ERA objective of promoting optimal circulation, access to and transfer of scientific knowledge.

### **SaS Action Plan**

The PSx2 project was in line with the SaS Action Plan’s “Dialogue with Citizens” and the “Involving civil society” objectives since its main goal was to bring research closer to society. More precisely, the project objectives were consistent with the following SaS actions:

- Action 20: Organise local and regional dialogues on “Science and Society”, since one of the specific objectives consisted in the dissemination of the results among national and local authorities
- Action 22: Exchange national information on the use of participatory procedures, since the project meant to identify and disseminate best practices enhancing public participation in science and research and developing an operational dialogue;
- Action 23: Inaugurate public discussions and hearings on specific themes, as the project had the specific objective of disseminating the results of the analysis within the project network and to a broader range of stakeholders (other CSOs, scientific institutions, national and local authorities).

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## **PROJECT RESULTS AND OUTCOMES**

### **Project objectives**

The implementation of the PSx2 project enabled the following outputs:

- **Cooperation among the project partners** and their progresses in mutual understanding;
- **The elaboration of the Handbook** named “*Participation in science and scientific participation. The role of civil society organisations in decision-making about novel developments in biotechnologies*” based on the analysis of the interviews and of the in-depth case studies produced by each partner.

According to the Project’s Final Activity Report, some activities demanded more time than what was initially planned. In particular:

- The Questionnaire Design required a long discussion that brought a radical change in the methodological and subsequent operative approach. This produced a shift of almost one month.
- The analysis of the main findings of the first round of interviews required a re-shaping of the following step.
- The final version of the Handbook required a more complex approach (including an extra meeting of a “task force” in Rome) and therefore quite more time than what initially planned.

For these reasons, an extension of the project duration was asked to the Commission in order to postpone the dissemination events previously scheduled in July to October 2008.

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<sup>45</sup> To create conditions under which policy decisions in multi-level governance are more effective in meeting society’s needs, more soundly based on science and, at the same time, through inclusive participation take account of the relationship between technological innovation and society change, as well as the aspirations and concerns of civil society.

According to the Final Activity Report, the project did not implement the self-assessment procedure consisting in a synthetic quali-quantitative evaluation by each partner at the end of any Workpackage as was planned in the Work of Description. This was because a shared method of co-decision was adopted at the beginning of the project, with each relevant issue submitted to a debate among the partners. Indeed, each partner was totally committed and informed and the self-assessment ineffective.

### **Main achievements according to Programme objectives**

Through its Handbook, produced on the basis of stakeholders' interviews and reviewed by a number of social, scientific and institutional actors external to the consortium network, the project was consistent with the programme objective of stimulating "structural links, within the European Research Area, for a more dynamic interaction between, scientists, policy makers and society at large". The elaboration of the Handbook through an intensive peer review activity, involving scientific partners, both from the network and outside it, required the active participation of citizens. However, it cannot be noted whether this in fact had an impact on policymaking and policy development.

### **Main achievements according to SaS Dimensions**

The PSx2 project actively involved civil society in its research, in particular through the Peer Review activity. In that respect, the project met the Civil Society and Citizens Participation dimension's objective of achieving the transition from a passive science-to-society transmission model to a reciprocal multi actor-transaction model. Moreover, the project moved away from a one-directional approach to a more inclusive approach with the involvement of civil society in the project.

## **DISSEMINATION AND ENGAGEMENT ACTIVITIES AIMED AT TRANSFERRING THE PROJECT RESULTS TO WIDER COMMUNITIES**

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Project partners elaborated a plan for using and disseminating knowledge:

- **Launch and animation of the project website** that includes a public home page describing the project and its main objectives and put at the public disposal the main outputs and deliverables, including the Manual itself;
- For the **peer review activity**, a number of social, scientific and institutional actors external to the consortium network were involved, asking them to take part to the building up of the final draft of the Manual through their comments and by taking part to the third partner meeting;
- The sixth working package was entirely dedicated to the dissemination plan of the Manual and of the broader results of the project. It was achieved by:
  - **Printing 3.000 copies of the Manual in six languages** (English, French, German, Spanish, Italian and Estonian), in order to strengthen the European value of the work;
  - **Delivering the Manual to all the targeted CSOs** and to a wider range of stakeholders involved in biotechnology research and governance;
  - **Organising a national conference** to present and distribute it to CSOs, scientific institutions, ministries, national and local authorities, EC representatives, press and media.
- Organisation of two international events:
  - A workshop within the "Planet diversity world congress on the future of food and agriculture" (Bonn 12-16 of May 2008);
  - A conference in Brussels at the EU level (13 November 2008);
- **Drafting of articles and papers** for publication in journals and magazines.

According to the Final Activity Report, the planned dissemination activities were redefined in agreement with the EC. The project postponed the dissemination events previously scheduled in July to October 2008 and changed approach: the initially planned six national events were concentrated into two main dissemination events (A workshop within the "Planet diversity world congress on the future of food and agriculture" and a conference in Brussels). Besides this, both events had an international dimension that brought together a higher number of CSOs from different countries.

## **PROJECT IMPACTS**

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### **Potential impact**

The PSx2 project aimed to create a network of different organisations (research and CSOs) with wide EU coverage, with the idea to mobilise a critical mass of resources in Europe and to facilitate democratic involvement in science through dialogue and mutual learning between social and scientific partners. The project was thus designed to allow dissemination of experimented ideas and practices that may enhance the Civil Society participation in Science,

influence the decision-making processes and indirectly enforce European policy on public participation in research activities focussed on GMO issues.

Potential impacts can be further assessed through the following indicators:

- **Betweenness centrality:** Two institutions out of the nine participating in the project were in the top 1% most central institutions in FP6, and four were in the top 5%;
- **Scientific attractiveness:** Two institutions out of nine participating were ranked in the Leiden university ranking: the University of Bremen ranked 282th and the University of Perugia ranked 332th;
- **Business attractiveness:** No participants from PACT were ranked amongst the biggest R&D investors having participated in SaS. This can notably be explained by the fact that participants were mainly universities and research institutes.

### Actual impact

Beyond expectations, the actual impacts can be into four types:

- **Scientific impact:** Activities carried out within the PSx2 project enabled the production of a handbook and the drafting of three publications related to the involvement of CSO in decision-making in the agriculture area. One of these publications has been quoted 26 times. This suggests a positive impact from a scientific point of view;
- **Institutional and organisational impact:** Carrying out research on the opportunities for participation of CSOs in the science area is expected to have an impact on institutions and organisations. However, in the deliverables, no data can be found whether the project results had this kind of impact;
- **Policy impact:** As the project is supposed to enhance the CSOs' participation in Science, it has the potential to influence the decision-making processes and therefore on European policies on public participation in research activities. Nevertheless, the project partner did not specify the policy impact of their project.
- **Social media impact:** Between 2008 and 2010, only one post was found referring to the PSx2 project, suggesting a non-existent visibility and impact through this channel. This can be partially explained by the state of technology at the time of the project implementation.

### PATH-BREAKING ADVANCEMENTS

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None.

### BEST PRACTICES

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None.

### EU ADDED VALUE OF THE PROJECT

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The added value of carrying out the work at a European level is based on the fact that the Manual will be created with data collected in different European countries, and discussed and agreed by social and scientific actors coming from a large number of Member and Associated States. Hence, its impact and relevance will cover not only one country but the whole EU and beyond.

### PARTICIPANTS AND RESEARCH TEAM

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#### Participants

Number of participants: 9

Number of countries involved: 7

	Type	Country	Role	Previous participations to FP
CONSIGLIO DEI DIRITTI GENETICI	OTH	IT	Coordinator	1
UNIVERSITÀ DI PERUGIA	HES	IT	Participant	1
UNIVERSITÉ DE CAEN BASSE NORMANDIE	HES	FR	Participant	1
SA EESTIMAA LOODUSE FOND (ESTONIAN FUND FOR NATURE)	OTH	EE	Participant	1
COMITÉ DE RECHERCHE ET D'INFORMATION INDÉPENDANTES SUR LE GÉNIE GÉNÉTIQUE	OTH	FR	Participant	1
GENEWATCH UK	OTH	GB	Participant	1
EUROPEAN NGO NETWORK ON	OTH	CH	Participant	1

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	Type	Country	Role	Previous participations to FP
GENETIC ENGINEERING ZENTRUM FÜR EUROPÄISCHE RECHTSPOLITICK AN DER UNIVERSITÄT BREMEN	REC	DE	Participant	1
CONSEJO SUPERIOR DE INVESTIGACIONES CIENTÍFICAS	REC	ES	Participant	332

### Team Composition

Team Size: 12 members\*

GENDER				
Female		Male		Unknown
50%		50%		0%
SENIORITY				
Average		Junior		Senior
0%		0%		100%
PhD				
No			Yes	
33%			67%	
BACKGROUND				
Applied Sciences	Health Sciences	Humanities & Social Sciences	Natural Sciences	Unknown
0%	33%	33%	33%	0%

\*The data are based on the analysis of the provided project's Description of Work.

### DELIVERABLES AND PUBLICATIONS

DELIVERABLE NO.	DELIVERABLE NAME	DUE DATE OF DELIVERY (month)	ACTUAL SUBMISSION DATE: (month)
D1.01	Financial procedure	1	-
D1.02	Report of self-evaluation for WP2	4	-
D1.03	Report of self-evaluation for WP3	9	-
D1.04	Report of self-evaluation for WP4	13	-
D1.05	Report of self-evaluation for WP5	16	-
D1.06	Report of self-evaluation for WP6	18	-
D1.07	Financial and activity report	13	-
D1.08	Final report, including financial report	18	-
D1.09	Audit certificates	18	-
2.01	Minutes of the meeting	2	2
2.02	Shared definition of "participation in science"	2	-
2.03	Definition of target CSOs	2	-
2.04	Website	3	-
2.05	Database for data collection	3	-
2.06	Questionnaire form in English	3	-
2.07	Collection of targeted CSOs	3	-
3.01	Italian, German, Spanish, Estonian and French versions of questionnaire	4	-
3.02	Loaded CSO response on the database	7	-
3.03	Overall view on CSOs activities enhancing public participation in science and research	8	-
4.01	Minutes of the meeting	7	-
4.02	Identification of a sample best practices and follow up interviews	10	-
4.03	Draft of manual of best practices	12	-
5.01	Reports of partners and outsider scientific and social stakeholders on the draft	14	-
5.02	Minutes of the meeting	15	-

Stock-taking and meta-analysis of Science in Society projects throughout FP6 and FP7  
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<i>DELIVERABLE NO.</i>	<i>DELIVERABLE NAME</i>	<i>DUE DATE OF DELIVERY (month)</i>	<i>ACTUAL SUBMISSION DATE: (month)</i>
5.03	<i>Manual of best practices in English</i>	15	-
6.01	<i>Manual of best practices in Italian, German, French and Spanish</i>	16	-
6.02	<i>Six national conference to present the general achievements of the project and to spread out the best practices gathered into the manual</i>	17	-

<i>Publications no.</i>	<i>PUBLICATION</i>	<i>Number of citation</i>
1.	<i>Helen Wallace (2010), Bioscience for life? Who decides what research is done in health and agriculture?</i>	6
2.	<i>Maria Paola Ferretti and Vincenzo Pavone (2009), What do civil society organisations expect from participation in science? Lessons from Germany and Spain on the issue of GMOs in Science and Public Policy</i>	26
3.	<i>Brunella Pinto and Andrea Pasqualotto (2010), WP2 Community-supported agriculture in Italy</i>	0

### **MAIN SOURCES**

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eCORDA  
 CORDIS database  
 OPENAIRE database  
 PSx2 CONSORTIUM (2006). Description of Work. Annex 1  
 PSx2 CONSORTIUM (2011), Final publishable report

## **WINDFARMPERCEPTION: VISUAL AND ACOUSTIC IMPACT OF WIND TURBINE FARMS ON RESIDENTS "WINDFARMPERCEPTION"**

**Framework Programme: FP6**

**Action line/Part: PART A: BRINGING RESEARCH CLOSER TO SOCIETY**

**Activity: 4.3.1 Governance and Scientific advice**

**Area: 4.3.1.5 Science Shops: research for local civil society**

**Dimension: CIVIL SOCIETY AND CITIZEN PARTICIPATION**

**Tool: Specific Support Actions**

**Project Call For Proposal: FP6-2005-SCIENCE-AND-SOCIETY-20**

**Status: Closed**

**Total cost: € 170,900**

**Total EU funding: € 170,900**

**Website: <http://www.rug.nl/society-business/science-shops/betawetenschapswinkel/kennisdossiers-beta/windfarmperceptionproject/?lang=en>**

**Period: 01/01/2007 - 30/06/2008**

**Subjects: Information and Media – Scientific Research – Social Aspects**

**Project ID and Acronym: ID: 44628 ACRONYM: WINDFARMPERCEPTION**

### **BACKGROUND AND CONTEXT OF THE PROJECT AND STRATEGIC NEEDS**

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While there is general public support for sustainable energy, there is less support to actual plans to build wind farms as a result of local opposition. In the Netherlands, there is growing public resistance to onshore wind turbines, with this opposition now being the main bottleneck in wind energy development.

Increasing evidence exists to show that the local impact of wind turbines may be more negative than expected. A need existed to investigate environmental impact, a need which was shared by the International Energy Agency. One of the research priorities identified in the IEA 2005 Wind Energy Annual Report was to 'minimise environmental impacts'.

### **SPECIFIC PROJECT OBJECTIVES**

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#### **Project objectives**

The project consisted in a study, over 18 months, which aimed to **gain insight into the perception of a wind farm by residents living nearby such a farm in the Netherlands**. Partners in the projects were the University of Groningen, Goteberg University and University Medical Centre Groningen.

The project aimed to investigate the relationship between (a) the generation of wind energy by onshore wind farms, (b1) the exposure of the residents to noise originating from these neighbouring wind farms and (b2) the impact the wind farms have on the residents' perception concerning their health and well-being.

The project therefore aimed to:

- Provide knowledge on the perception of wind turbines by people living in proximity to wind farms; and
- Evaluate human responses to audio and visual exposures from wind turbines and to give insight in possibilities to mitigate the local impact of wind farms.

#### **SaS/SiS Programme objectives/Activity Lines**

The aim of the project was to foster a connection between civil society and the scientific community through the elaboration of a study aiming at analysing the perception of wind turbines and the human response to its exposure. In this way, WINDFARMPERCEPTION contributed "to promoting better public awareness of scientific and technological advances and their possible implications, and a wider understanding of scientific and innovation culture" (third SaS specific objective). More specifically, the project was designed to "promoting science and scientific culture" (area line 4.3.5.1).

Finally, it can be assessed that the study on the perception of windfarms by residents living nearby aimed at creating the conditions under which policy decisions in multi-level governance are more effective in meeting society's needs and more soundly based on science. The collection of citizens' perspective and their direct involvement for the development of the study reinforced the relationship between technological innovation and social change and took in account the aspirations and concerns of civil society.

#### **SaS dimensions**

The project **relied upon the idea of gathering knowledge of residents' perception of wind turbines**. In that respect, the objectives of WINDFARMPERCEPTION were consistent with the civil society and citizen participation dimension.

#### **Innovation Union objectives**



Since one of the project objectives was a better understanding of the civil society perception of wind farms and more precisely from residents nearby wind farms in order to help understanding public reaction, it was in line with one of the Innovation Union priorities which consisted in maximising social and territorial cohesion.

#### **European Research Area (ERA) objectives**

The WINDFARMPERCEPTION project was relevant with the deployment of ERA as the project aimed at responding to the "need to promote dialogue between researchers and other sectors of society (citizens, experts, industrial managers and political decision-makers) (COM(2000) 6 final).

#### **SaS Action Plan**

The project objectives were consistent with the following SaS actions under its Action Plan:

- Action 23: The organisation of four conferences targeting the scientific community, consultants, authorities and the wind energy sector as well as the organisation of a press release targeting national and international media was consistent with this Action focused on inaugurating public discussions on specific themes.
- Action 30: The Project aimed to establish open dialogues and therefore contributed to addressing the FP6 'information deficit model' based approach

The project objectives were consistent with the Science and Society action plan as they aimed to establish open dialogues (Action 30) and thus contributed to addressing the FP6 "information deficit model" based approach.

### **PROJECT RESULTS AND OUTCOMES**

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#### **Main achievements according to Project objectives**

The project objectives were met, with the project:

- **Providing valuable new knowledge** on the perception of wind turbines by residents, adding data to the earlier Swedish studies and providing more insight into the determinants of attitude towards and perception of wind farms;
- **Allowing a quantitative evaluation of human response** to sound exposures from wind turbines and the correlation between aural and visual exposure;
- **Demonstrating quantitatively the relevance of visibility and sound level** and also the relevance of attitude and (economic) benefits on the perception of wind farms by residents. This helps to understand public reaction to a wind farm and support an approach where the local population is involved in the planning and exploitation of a wind farm.

A lot of new knowledge on modern wind turbines has become available over a number of years, with two of the project partners playing a prominent role in the development of this information. The project provided more detailed information on the impact of wind farms on their environment which is considered as crucial information in a time when wind energy is boosted to provide a larger part of the energy needed by society, while at the same time opposition to wind farms is growing.

Based on the project results, a number of recommendations were proposed:

- The negative impact of the sound of the wind turbines and sound reduction should be given more attention;
- Discussions should be undertaken on the different views on landscape in order to reach consensus relating to the wind farms.
- Investigate further the effect of road traffic on masking the sound of wind turbines.

In the view of project partners<sup>46</sup> and according to the Final Activity Report, the project team delivered more than anticipated, with the partners presenting seven papers at four conferences in three countries (compared to the one conference presentation originally foreseen). However, the submission of the publications occurred at least two years after the end of the project.

#### **Main achievements according to Programme objectives**

Since the WINDFARMPERCEPTION project resulted in providing new knowledge about wind turbines perception by residents and in devising an evaluation of human response to sound exposures from wind turbines, it contributed to making policymakers aware of the civil society vision of wind farms. In doing so, the project helped in creating conditions under which policy decisions are more effective in meeting society's needs. This way it is consistent with the

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<sup>46</sup> WINDFARMPERCEPTION (2008), Final activity report.

“Governance and Scientific advice” dimension of FP6 programme. Through the collection of residents’ perception on the nearby windfarm, the project also contributed to increasing the active participation of citizens in policy developments, an expected impact of the SaS programme.

### **Main achievements according to SaS Dimensions**

As the project’s purpose was to gain insight into the perception of a wind farm by residents living nearby such a farm, in order to achieve its objectives, the consortium had to involve civil society and citizen what is the principal goal of the “Civil society and citizen participation” dimension of FP6. By addressing surveys to residents living nearby, the project involved civil society and therefore moved away from a one directional approach (i.e. dissemination of project results to civil society) to a more inclusive approach through the inclusion of society in the project.

### **DISSEMINATION AND ENGAGEMENT ACTIVITIES AIMED AT TRANSFERRING THE PROJECT RESULTS TO WIDER COMMUNITIES**

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The Project Partners used a number of tools for dissemination and engagement activities.

They were the following:

- Website – targeting the general public and consultants
- Conference papers – Papers presented at four conferences targeting the scientific community, consultants, authorities and wind energy sector
- Final Report – targeting all groups including the general public
- Press Statement/Press Release – targeting the national and international media
- Letter of recommendation outlining the recommendations of the project – targeting the wind energy sector, wind energy groups
- Summary of results – targeting survey respondents
- Exposure calculation tool – targeting the general public and consultants

The project website (that is still in existence) an overview of the project and its results in Dutch and in English. The Final Report and the Calculation Tool including an example project and a user manual, in both Dutch and English, can be downloaded from the website.

In addition to the above, during the project, the project partners presented seven papers on exposure to wind turbines and its effects at four conferences, which are elaborated under publications in the section below.

While the dissemination activities were achieved, on the basis of the collected information, it is not possible to state whether the European Wind Energy Association (EWEA) and International Energy Agency (IEA), as well as residential and environmental groups, requested to disseminate the results, fulfilled this request.

### **PROJECT IMPACTS**

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#### **Potential impact**

The following potential policy impacts were identified by project partners:

- **Contribution to standards** – It was expected that the results may be instrumental in helping improve the international guidelines for the assessment of wind turbine noise (IEC61400) and national standards on the environmental impact of wind turbines.
- **Contribution to policy developments** – It was expected that the project result will bring a more objective presentation of actual perception of residents into public discussions on wind farms. The project team considered that this could help in reaching more fact-based and transparent decisions with respect to new wind farm projects and clarify possible complaints related to existing wind farms. A thorough understanding of the impact of the present generation of wind turbines on residents is essential for regulatory purposes in the fields of environmental and physical planning, especially criteria and standards setting for turbine noise levels and structuring of physical planning (landscape) operations. The project’s goal was to contribute to this understanding.

Potential impacts can be further assessed through the following indicators:

- **Betweenness centrality:** Two institutions out of the two participating in the project were in the top 1% most central institutions in FP6;
- **Scientific attractiveness:** All the institutions participating were ranked in the Leiden university ranking: the University of Gothenburg ranked 287th and the University of Groningen ranked 151th;

- **Business attractiveness:** No participants from WINFARMPERCEPTION were ranked amongst the biggest R&D investors having participated in SaS. This can notably be explained by the fact that all participants were universities.

Beyond the expectations, actual impacts can be classified into the following sections:

- **Scientific impact:** the project enabled the drafting of four publications clarifying the perception of wind farm noise. The Final Report outlined that the positive attitude towards sustainable energy is not always accompanied by a positive reception of wind farm plans locally and this study helped to explain why that is. The results support an approach where the local community is involved in the planning process with real influence on the outcome;
- **Institutional and organisational impact:** no relevant institutional and organisation impact were identified. That can be explained by the objectives of the project that would not enable that kind of impact;
- **Policy impact:** The results helped the Dutch government to commission a review of all wind turbine noise exposure studies to obtain a general dose-response curve;
- **Social impact:** Between 2008 and 2010 eleven posts were found referring to the project, suggesting no relevant social impacts. That can be partially explained by the state of the technology at the time of project implementation.

### PATH-BREAKING ADVANCEMENTS

The project was considered as path breaking due to its significant stakeholder engagement, with the project allowing a quantitative evaluation of human response to wind turbines through engagement with the public. The success of the projects' results demonstrated the importance of consulting civil society and citizens in relation to environmental developments.

The project also contributed to advancements in relation to legislating on wind turbine noise since the results of the project helped to establish a new method in the Netherlands to assess wind turbine noise with the project results having an impact on legislation at national level.

### BEST PRACTICES

Due to its path breaking advancements and impacts, the project can be considered as being of best practice in relation to new ways of undertaking activities through the consultation of the public. It can also be considered as best practice due to the impact it had on national level, which can influence researchers in other Member States wishing to undertake research with participation from civil society.

### EU ADDED VALUE OF THE PROJECT

The project was of EU Added Value, with the project fully financed by FP6 and thus enabling research which could not have been undertaken through the financing of one Member State alone.

### PARTICIPANTS AND RESEARCH TEAM

#### Participants

Number of participants: 3

Number of countries involved: 2

	Type	Country	Role	Previous participations to FP
THE UNIVERSITY OF GRONINGEN	HES	NL	Coordinator	77
ACADEMIC HOSPITAL GRONINGEN	HES	NL	Participant	-
GOETEBORG UNIVERISTY	HES	SE	Participant	17

#### Team Composition

Team Size: 3 members\*

GENDER		
Female	Male	Unknown
33,0%	67,0%	0,0%
SENIORITY		

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Final Case Studies

Average		Junior		Senior	
0,0%		33,0%		67,0%	
PhD					
No			Yes		
33,0%			67,0%		
BACKGROUND					
Applied Sciences	Health Sciences	Humanities & Social Sciences	Natural Sciences	Unknown	
0,0%	33,0%	33,0%	33,0%	0,0%	

\*The data are based on the analysis of the provided project's Description of Work.

### DELIVERABLES AND PUBLICATIONS

DELIVERABLE NO.	DELIVERABLE NAME	DUE DATE OF DELIVERY (month)	ACTUAL SUBMISSION DATE: (month)
D1	Questionnaire text	3	4
D2	Survey database	6	6
D3	Dose data	6	6
D4	Conference paper	4	8
D5	Analysis report	16	22
D6	Final report	18	22
D7	Website	18	25
D8	Press statement	18	23
D9	Letter of recommendation	18	23
D10	Popular summary of results	18	23
D11	Interim report 1	3	3
D12	Interim report 2	6	12
D13	Interim report 3	13	16
D14	Evaluation report	18	20

Publications no.	PUBLICATION	Number of citation
1.	Christopher Hanning (2012). "Wind turbine noise, sleep and health"	11
2.	Sabine A. Janssen, Henk Vos, Arno R. Eisses and Eja Pedersen (2011). "A comparison between exposure-response relationships for wind turbine annoyance and annoyance due to other noise sources"	76
3.	Eja Pedersena, Frits van den Bergb, Roel Bakker, Jelte Boumac. (2010) "Can road traffic mask sound from wind turbines? Response to wind turbine sound at different levels of road traffic sound"	54
4	Sabine A. Janssen; Henk Vos; Arno R. Eisses; Eja Pedersen (2013) "Predicting annoyance by wind turbine noise"	5

In addition, project partners delivered five papers at conferences that were directly linked to the project results:

- Wind farm perception – a study on acoustic and visual impact of wind turbines on residents in the Netherlands (Pedersen) – presented at the Wind Turbine Noise Conference 2007, Lyon
- Wind turbines in the Netherlands: effects on health and quality of life (Bakker) – presented at the Public Health Conference, Groningen
- Annoyance caused by community noise – interaction of sounds from road traffic and wind turbines (Pedersen) – presented at SAE Brazil, Florianopolis
- Wind farm aural and visual impact in the Netherlands (van den Berg) – Acoustics '08 Conference, Paris
- Response to wind turbine noise in the Netherlands (Pedersen) – Acoustics '08 Conference, Paris

## **MAIN SOURCES**

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The main sources of information for the fiche are presented in the following documents:

Description of Work, the final activity report, the Conference Papers and the final report as well as through the main sources of online information including:

WINDFARMPERCEPTION CONSORTIUM (2006). Description of work. Annex 1

WINDFARMPERCEPTION CONSORTIUM (2008). Final activity report

WINDFARMPERCEPTION CONSORTIUM (2008). Final report

The Conference Papers;

ECORDA;

CORDIS database;

OPENAIRE database

## **CAPACITY BUILDING FOR PATIENT ASSOCIATIONS IN RESEARCH ACTIVITIES "CAPOIRA"**

**Framework Programme: FP6**

**Action line/Part: PART A: BRINGING RESEARCH CLOSER TO SOCIETY**

**Activity: 4.3.1 Governance and Scientific advice**

**Area: -**

**Dimension: CIVIL SOCIETY AND CITIZEN PARTICIPATION**

**Tool: Specific Support Actions**

**Project Call For Proposal: FP6-2005-SCIENCE-AND-SOCIETY-19**

**Status: Closed**

**Total cost: € 154,581.00**

**Total EU funding: € 154,581.00**

**Website: <http://www.eurordis.org/fr/content/capouira-renforcer-limplication-des-patients-dans-la-recherche>**

**Period: 01/01/2007 - 30/06/2008**

**Subjects: Social Aspects**

**Project ID and Acronym: ID: 44665; ACRONYM: CAPOIRA**

### **BACKGROUND AND CONTEXT OF THE PROJECT AND STRATEGIC NEEDS**

A lack of EU funded projects coordinated by patient organisations or with patient organisations as partners existed. The lack of projects with patient participation is due to the insufficient knowledge of patient representatives of EU research instruments and policy, preventing them from building the necessary confidence to engage in EU projects. Through the dissemination of good practices and expertise of patient representatives who have already been involved in EU funded research projects – whether as Work package leaders, project coordinators or partners.

On the clinical research side, currently patients and parents of patients are often reluctant to participate in clinical trials about which they have little or no understanding, neither in terms of risks and benefits, nor in terms of statistical methods, vocabulary and procedures. This widespread situation leads to a shortage of participants in clinical trials especially in the field of rare diseases where there is already an important and structural death of eligible patient for clinical research.

The experience in the field of HIV/AIDS, cancer and rare diseases has shown that when patient representatives are associated and involved since the earliest stages of the trial (since the protocol design), they understand a lot better the potential risks and benefits at both the individual and collective levels.

### **SPECIFIC PROJECT OBJECTIVES**

The CAPOIRA project aimed to bring research closer to patient organisations, as a section of civil society organisations, and increase their involvement in EU health research projects.

#### **Project objectives**

Through knowledge dissemination to patient representatives, the project aimed at empowering patients and making them feel like true partners during the research activities performed on their bodies.

The CAPOIRA project aimed therefore to boost patients' advice, confident and informed collaboration in clinical research, as they will have an improved dialogue with clinical trials' main investigators and sponsors, rather than just being "material providers".

The main goal of the project was to increase the capacities of patient organisations – as part of civil society – in order to promote their participation in the following research activities:

- Clinical trials, private or public, both at national and European level;
- Health research projects (clinical and non-clinical), funded at EU level by the 7<sup>th</sup> Framework Programme for R&D.

In order to achieve this overarching goal, the project had two specific objectives:

The project aimed to:

- Develop a capacity-building module on clinical research in three EU member states
- Organise a European two day Workshop dedicated to patient organisation representatives in order to facilitate their participation in EU funded projects. The workshop will also be open to scientists in the field of health research.

According to the Final Activity Report, the two above mentioned objectives were achieved.

### **SaS/SiS Programme objectives/Activity Lines**

The project was designed to increase the capacities of patient organisations in order to promote their participation in research activities. In this way, the CAPOIRA project contributed to the second SaS objective namely "scientific effort is naturally open to public concerns and aspirations". More specifically, the project was designed to "encouraging the active participation of society at large in policy development" (area line 4.3.1.2). In addition, the project is relevant with the deployment of ERA as the project contributed to responding to the "need to promote dialogue between researchers and other sectors of society (citizens, experts, industrial managers and political decision-makers) (COM(2000) 6 final).

While the project was broadly in line with the activity line objective<sup>47</sup>, with patient's needs taken into account, they did not contribute directly to policy development. However, through the organisation of a workshop dedicated to patient organisations and open to scientists, the project encouraged the dialogue between technological innovation and social change and took into account the aspirations and concerns of civil society.

### **SaS Action Plan**

As it fostered the participation of patient organisations in the health research sphere, the CAPOIRA project appears relevant with the civil society and citizen participation dimension. In particular, the project contributed to the following SaS Action:

- Action 23: The organization of a European workshop to facilitate the participation of organisations in EU funded projects was coherent with Action 23, as it aimed at organising public discussions on specific themes.

### **PROJECT RESULTS AND OUTCOMES**

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The CAPOIRA project reached all of the milestones and achieved all the deliverables set out in the contract signed with DG Research of the European Commission and provided the following main results:

- As an experimental project, it demonstrated that the pilot capacity building sessions on clinical trial protocols developed by EURORDIS and INSERM in France can be successfully extended to other European Countries;
- Through the European Workshop on 'gaining access to rare disease research resources' it was possible to identify the needs of the rare disease patient community needs.
- The evaluation carried out by INSERM enabled the identification of what worked best during these events and formulated a 'way forward' with specific European Recommendations for future capacity building events. Overall, the patient representatives' capacity building activities through the specific support action have:
  - Contributed to bridging the gap between the patient community and the scientific community in the EU;
  - Enhanced potential future collaboration in research projects;
  - Helped defining the future strategies and methodologies for patient capacity building in research.

Besides minor logistic issues and other minor issues (i.e. the fact that the proposed second Danish capacity building session was not organised because of budgetary constraints) all planned outcomes were achieved and reported in the Final Activity Report.

### **Main achievements according to Programme objectives**

The organisation of a workshop dedicated to patient organisation representatives and open to scientists within the CAPOIRA project contributed to expanding the active participation of citizens in policy development

### **Main achievements according to SaS Dimensions**

The organisation of the workshop on "Gaining access to Rare Disease Research" ensured mutual learning through an exchange between patient organisation representatives. This marked the project's transition moving from a one-directional approach to a more inclusive approach for the involvement of CSO.

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<sup>47</sup> To create conditions under which policy decisions in multi-level governance are more effective in meeting society's needs, more soundly based on science and, at the same time, through inclusive participation take account of the relationship between technological innovation and social change, as well as the aspirations and concerns of civil society.

## **DISSEMINATION AND ENGAGEMENT ACTIVITIES AIMED AT TRANSFERRING THE PROJECT RESULTS TO WIDER COMMUNITIES**

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Several initiatives were put in place to disseminate information regarding the CAPOIRA project. This was seen by project partners as key to any future development of the CAPOIRA pilot sessions in other European countries:

- EURORDIS has included several articles on the CAPOIRA project on its website and newsletter;
- The capacity building sessions themselves were well advertised by the partners (website and newsletter);
- A leaflet was developed for the Spanish and Italian sessions with programmes and logistical details concerning the session. A third English leaflet is also envisaged post CAPOIRA project;
- The European Workshop in May 2007 in Paris was an opportunity to introduce the CAPOIRA project to the rare disease community;
- The proceedings of the European Workshop on 'gaining access to rare disease research resources' were copied into CD rom which was widely distributed;
- The results and recommendations based on the outcomes of the European Workshop were then presented during the European Conference on Rare Diseases in Lisbon 26-27 November 2007, organised under the Portuguese EU Presidency.

According to the Final Activity Report, the two dissemination activities (Announcement and invitation to the capacity-building sessions on clinical trial protocols and Announcement and invitation to the European Workshop on health research resources) were achieved.

## **PROJECT IMPACTS**

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The CAPOIRA project was designed to provide tools to enhance the involvement of patient representatives in health research activities, both clinical research activities and EU funded health research projects. The project was expected to help bridging the existing and commonly identified gap between NGO's and EU policies on the one hand, and between patient representatives and scientists, on the other hand.

Beyond expectations, the actual impacts can be classified into the following sections:

- **Scientific impact:** the CAPOIRA had a positive impact from a scientific point of view. Six events took place with a total of 347 participants and an innovative model at national level has been turned into an innovative model at European level. In addition, the evaluation of the clinical trial protocol sessions clearly shows that the patients have at the very least been familiarised with the evidence-based medicine frame and the concepts and vocabulary of clinical research, this has empowered them as patient representatives.
- **Organisation and institutional impact:** enhance the involvement of patient representatives in health research activities could have an impact on the organisation of this kind of research. Nevertheless, nothing is specified on this more long-term impact.
- **Policy impact:** project partners specified in the final report that the recommendations they elaborated should contribute to any future approach to the development of research policy on rare diseases. No data can be found whether recommendations were applied.
- **Social media impact:** No relevant social impacts were identified in relation to social media.

## **PATH-BREAKING ADVANCEMENTS**

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The CAPOIRA project can be considered as contributing to path-breaking advancements due to its scientific impact and effective stakeholder engagement. The innovative model which was used at national level in France was turned into an innovative model at European level. Moreover, the project was considered as effective in involving patient representatives in health research activities therefore helping to bridge a gap between the scientific community and society in this domain.

## **BEST PRACTICES**

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The CAPOIRA project can be considered as an example of best practice due to the stakeholder involvement which occurred which ensured greater dialogue in the otherwise closed medical profession.

## **EU ADDED VALUE OF THE PROJECT**

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In the CAPOIRA "description of work", project partners evaluated the European added value of their project as "high". As a matter of fact, they specified the following points:



- The development of a European culture of cooperation between EU health researchers and EU patient representatives;
- The promotion of the participation of patient organisations in European research projects.

## PARTICIPANTS AND RESEARCH TEAM

### Participants

Number of participants: 5

Number of countries involved: 4

	Type	Country	Role	Previous participations to FP
EUROPEAN ORGANISATION FOR RARE DISEASES	OTH	FR	Coordinator	2
RARE DISORDERS DENMARK (SJAELDNE DIAGNOSER)	OTH	DK	Participant	1
UNIAMO - FEDERAZIONE ITALIANA MALATTIE RARE	OTH	IT	Participant	1
FEDERACIÓN ESPAÑOLA DE ENFERMEDADES RARAS	OTH	ES	Participant	1
INSTITUT NATIONAL DE LA SANTE ET DE LA RECHERCHE MEDICALE.	REC	FR	Participant	157

### Team Composition

Team Size: members\*

GENDER				
Female		Male		Unknown
50%		50%		0%
SENIORITY				
Average		Junior		Senior
0%		13%		86%
PhD				
No			Yes	
88%			13%	
BACKGROUND				
Applied Sciences	Health Sciences	Humanities & Social Sciences	Natural Sciences	Unknown
12,50%	38%	38%	0%	13%

\*The data are based on the analysis of the provided project's Description of Work.

## DELIVERABLES AND PUBLICATIONS

DELIVERABLE NO.	DELIVERABLE NAME	DUE DATE OF DELIVERY (month)	ACTUAL SUBMISSION DATE: (month)
D1.1	First meeting of the steering committee	1	-
D1.2	English version of the pedagogic tool	2	-
D1.3	Two days meeting with national trainers	4	-
D1.4	Session leaflets and Workshop announcement in four languages	3	-
D1.5	Short activity report and final report to the European Commission.	12, 18	-
D2.1	Adapted pedagogic tool in Spanish	5	-
D2.2	Report on the Spanish sessions in English to WP6 leader	11	-
D3.1	Adapted pedagogic tool in Italian	5	-
D3.2	Report on the Italian sessions in English to WP6 leader	11	-
D4.1	Adapted pedagogic tool in Danish	5	-
D4.2	Report on the Danish session in English to WP6 leader	11	-

Stock-taking and meta-analysis of Science in Society projects throughout FP6 and FP7  
Final Case Studies

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<i>DELIVERABLE NO.</i>	<i>DELIVERABLE NAME</i>	<i>DUE DATE OF DELIVERY (month)</i>	<i>ACTUAL SUBMISSION DATE: (month)</i>
<i>D5.1</i>	<i>Report on the European Workshop</i>	<i>11</i>	<i>-</i>
<i>D6.1</i>	<i>Three questionnaires</i>	<i>5</i>	<i>-</i>
<i>D6.2</i>	<i>Evaluation of the project's capacity building activities</i>	<i>16</i>	<i>-</i>
<i>D6.3</i>	<i>Final recommendations</i>	<i>17</i>	<i>-</i>

<i>Publications no.</i>	<i>PUBLICATION</i>	<i>LINK (when available)</i>
	<i>"Needs of patient groups for accessing RD research resources"</i>	<i>-</i>
	<i>"Increasing patient involvement in research activities... Eurordis takes the lead"</i>	<i>-</i>

**MAIN SOURCES**

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CAPOIRA CONSORTIUM (2006), Annex 1 - Description of Work  
CAPOIRA CONSORTIUM (2008) Final activity report

## Civil Society and Citizen Participation: Science in Society

## **BRIDGING THE GAP BETWEEN SCIENCE AND STAKEHOLDERS: PHASE 1 – COMMON GROUND – "GAP1"**

**Framework Programme: FP7**

**Action line/Part: 5.1 A more dynamic governance of the science and society relationship**

**Activity: 5.1.2 Broader engagement to anticipate and clarify political, societal and ethical issues**

**Area: 5.1.2.1 Broader engagement on science-related questions**

**Dimension: CIVIL SOCIETY AND CITIZEN PARTICIPATION**

**Tool: Coordination and support action**

**Project Call For Proposal: FP7-SCIENCE-IN-SOCIETY-2007-1**

**Status: Closed**

**Total cost: € 795.383,62**

**Total EU funding: € 648.390,04**

**Website: <http://gap2.eu/>**

**Period: 01/04/2008 - 30/09/2009**

**Subjects: Coordination and Cooperation – Scientific Research**

**Project ID and Acronym: ID: 217639; Acronym: GAP1**

### **BACKGROUND AND CONTEXT OF THE PROJECT AND STRATEGIC NEEDS**

The interplay between policy makers, experts, stakeholders and the public at large is an increasingly crucial part of policy making for which the process is equally as important as the outcome.

Stakeholders may frequently challenge the validity or interpretation of scientific advice because of the negative impact that policy decisions can have on their lives. This 'tension' between society, policy and science is plainly evident when environmental sustainability concerns appear in conflict with maintaining livelihoods. As an example of this phenomenon, the GAP programme uses active participation and knowledge sharing between scientists and stakeholders as a way to reduce tension and build relationships that will yield long-term benefits to resource management. Centralised fisheries management has hitherto been focused on fish resources and hence based on formal biological science. With its top-down approach, it is unresponsive to local conditions and, by failing to meet central objectives of fishing communities, lacks support among those who have to manage resources. At the same time, it has failed to meet its own resource-related objectives. As an attempt to meet these challenges, collaborative research seeking to integrate the experiences of stakeholders in the knowledge base for management is a rapidly developing field.

### **SPECIFIC PROJECT OBJECTIVES**

#### **Project objectives**

The purpose of GAP1 was to **initiate cooperative research processes that provide the background knowledge and partnerships for preparation and implementation of a stakeholder-science participatory research project**. Five objectives were used to design work activities:

- Build trust and relationships by engaging stakeholders and scientists in planning cooperative research;
- Engage in open dialogue and develop complementary understanding through planning and preparation of hypothesis driven case studies;
- Use the case studies and the sociological experiences from regional activities on developing cooperative research ideas, to plan an RTD project aiming to combine and make use of the knowledge of fishermen and scientists;
- Communicate and disseminate the concepts, plans and outcomes of GAP1, at the national and European levels;
- Deliver project on time and budget. Meet deliverables.

#### **Innovation Union objectives**

"*Strengthening the knowledge base and reducing fragmentation*" is the first intermediate objective of the Innovation Union. By initiating a cooperative research aiming at providing the background knowledge and partnership for preparation and implementation of stakeholder-science participatory research project, the GAP1 project was in line with the Innovation Union.

#### **European Research Area (ERA) objectives**

The conduct of the GAP1 project was about cooperative research and contributed therefore to an "*optimal circulation, access to and transfer of scientific knowledge including via digital ERA*" (fifth ERA priority).

#### **SaS/SiS Programme objectives/Activity Lines**

The GAP1 project was implemented under the project call for proposals FP7-SCIENCE-IN-SOCIETY-2007-1 and more specifically took part at the Activity line 5.1.2 and the Action "CSO capacity building in research" whose purpose was to "support CSOs participation as coordinator or partners in activities which will prepare them for further involvement in research". The GAP1 project was implemented in order to build trust and relationships by engaging stakeholders and scientists in planning cooperative research that corresponds to the first Action objective "Identifying and discussing topics and opportunities for future research initiatives". In addition, the project aimed at providing the background knowledge through the elaboration of case studies and sociological experiences and contributed there to the third Action objective "exploration of possible forms of cooperation with research centres and other research stakeholders". Thus, the GAP1 project was consistent with the CSO capacity building in research activity line.

Over a period of 18 months, project partners established common ground on issues and knowledge that have become the basis of joint research plans. According to the Project Final Report, the project had an impact on individual partners organisations and government organisations. It also had an impact on the EU policy on Science and Society, the EU policy on fisheries and marine and on organisations beyond the EU research. For these reasons, the project encouraged public engagement and the participation of civil society organisations throughout the research process, creating a more constructive environment for researchers and the society as a whole.

### **SaS Action Plan**

The purpose of the GAP1 project was to initiate cooperative research involving fisheries stakeholders aiming at addressing the challenges of sustainable fisheries management. In that respect, the project's objective was consistent with the Civil Society and Citizen Participation dimension that consisted in creating the conditions for an informed debate between science, politics and society.

The project was in line with the following action:

- Action 20: The project organised several regional and Europe-wide workshops which were held to mobilise researchers and stakeholders and to facilitate institutional and interpersonal linkages in line with Action 20 to 'organise local and regional dialogues on 'Science and Society'.

### **PROJECT RESULTS AND OUTCOMES**

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During 18 months, the foundations for the participation of fisheries stakeholders in scientific research was developed. They shared their knowledge and experience, working together to develop specific plans for joint research actions:

- A portfolio of 12 case studies research proposals has been produced;
- A comparative analyse has been carried out to identify common patterns and themes in the work.

The large and diverse number of people and organisations involved in the GAP1 project has enabled a variety of research topics to be considered, including marine spatial planning, ecology, management measures, discarding, empowering industry to assess resource sustainability, and management decision making.

During the course of GAP1, considerable attention has been given to facilitate collaborative working relationships. The lessons have been drafted in a good practice guide and code of conduct for initiating participatory research, and have guided the design of future research (GAP2), involving at the earliest stage participatory planning processes.

According to the project Final Report, the objectives were fulfilled.

### **Main achievements according to Programme objectives**

Through the organisation of several workshops requiring the mobilisation of researchers and stakeholders, the project contributed to an increased participation and engagement in research activities by civil society and strengthened governance and networks in science.

### **Main achievements according to SiS Dimensions**

The conduct of the GAP1 project led to the development of foundations for the participation of fisheries stakeholders in scientific research. Thus, the project was deemed successful in contributing to the objective of Citizen Society and Citizen Participation dimension. According to the Project Report, several regional and European-wide workshops were held to mobilise researchers and stakeholders, facilitate institutional and interpersonal linkages, and to establish good practice in stakeholder participation in fisheries research. For this reason, the project ensured a transition from a passive science-to-society transmission model to a reciprocal multi actor-transaction model.

### **DISSEMINATION AND ENGAGEMENT ACTIVITIES AIMED AT TRANSFERRING THE PROJECT RESULTS TO WIDER COMMUNITIES**

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In the final report, project partners specified that outreach activities have been central to the establishment of support and commitment to the wider GAP programme. In this way, GAP1 activities and outcomes have reached a wide scientific and stakeholder audience, and also key management agencies, science administrations and members of the public across Europe.

The following activities were carried out:

- Internal and external technical outreach activities:
  - Website production and maintenance;
  - External communication, press releases and GAP1 newsletter;
  - Producing a good practice guide campaign;
  - Conducting a good practice guide event.
- Building an outreach network – assembling the network and press contacts through the life of the project and distributing project news to them at frequent intervals.

According to the project report, all planned dissemination activities were conducted. Two deliverables on dissemination were not mentioned in the Work of Description in order to allow for flexibility and agreement between stakeholders and scientists on the most appropriate outreach activities.

## PROJECT IMPACTS

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### Potential impacts

The objectives of GAP1 were driven by the need for fisheries stakeholders, scientists and policy makers to work together more effectively to address the challenges of sustainable fisheries management.

The project's potential impact can be further assessed through the following indicators:

- **Betweenness centrality:** 5 participating organisations of the GAP1 project were amongst the most central FP6 participants.
- **Scientific attractiveness:** Three project participants were ranked in the Leiden University ranking as follows: 601th place for the University of Tartu, 383th place for the University of Leicester, 121th place for the Technical University of Denmark.
- **Business attractiveness:** The GAP1 project had no participant ranked as one of the biggest R&D investors amongst SiS participants.

### Actual impacts

- Beyond expectations, the actual impacts can be classified into the following sections:
- **Scientific impact:** by carrying out the GAP1 project, the project improved stakeholders' participation in research and contributed to changing the way scientists and fisheries stakeholders approach their work.
- **Institutional and organisational impact:** project partners specified in the final report impact related to different organisations as follows:
  - Project partners organisations: initiating participatory research has influenced the way scientists and fisheries stakeholders approach their work;
  - Fisheries stakeholder organisations: GAP1 has impacted thinking by Regional Advisory Councils on their strategic role in the planning of research, implementation through collaborative projects, uptake and translation to decision making;
  - Government organisations: National governments have shown positive signs by encouraging approaches that integrate view
- **Policy impact:** project influenced EU policy-making by firstly providing a clear example that embedding science in society is a tangible concept, made real here by the demonstration that stakeholders across Europe are willing and able to get involved in fisheries sciences. Second, by engaging policy officers, the GAP project had an impact on EU policy related to fisheries and marine research. By doing so, they has influenced thinking on the role of stakeholders and wider society in science, the value of doing so, and this can be enabled.
- **Social media impact:** Between May 2008 and September 2011, four posts on the social media were recorded suggesting therefore a weak social media impact.

## PATH-BREAKING ADVANCEMENTS

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None.

## BEST PRACTICES

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None.

## EU ADDED VALUE OF THE PROJECT

Project partners did not specify their analysis regarding the EU added value of their project however it seems to be relevant. The GAP1 project carried out research related to fisheries policy that is one of the EU common policies.

## PARTICIPANTS AND RESEARCH TEAM

### Participants

Number of participants: 30

Number of countries involved: 11

	Type	Country	Role	Previous participations to FP
UK DEPARTMENT FOR ENVIRONMENT, FOOD AND RURAL AFFAIRS	OTH	UK	Coordinator	103
UNIVERSITY OF AALBORG	OTH	DK	Participant	1
REGIONAL FISHERIES CO-MANAGEMENT HALLAND	IND	SE	Participant	1
SOUTH DEVON AND CHANNEL SHELLFISHERMEN	OTH	UK	Participant	2
CONSORZIO UNIMAR SOCIETA COOPERATIVA	HES	IT	Participant	2
LAKE VATTERN SOCIETY FOR WATER CONSERVATION	OTH	SE	Participant	2
MS CHARLOTTA JARNMARK	IND	SE	Participant	1
ISTITUTO SUPERIORE PER LA PROTEZIONE E LA RICERCA AMBIENTALE	REC	IT	Participant	21
LATVIJAS ZIVJU RESURSU AGENTURA	IND	LV	Participant	1
NORGES FISKARLAG FORENING	OTH	NO	Participant	2
FEDERACION GALEGA DE CONFRARIAS DEPESCADORES	IND	ES	Participant	2
NSRAC LBG	OTH	UK	Participant	3
GHAQDA KOOPERATTIVA TAS-SAJD	IND	MT	Participant	2
LATVIJAS ZIVSAIMNIEKU ASOCIACIJA	IND	LV	Participant	1
KOPERATTIVA NAZZJONALI TAS-SAJD	IND	MT	Participant	1
FEDERACIO TERRITORIAL DE CONFRARIESDE PESCADORS DE GIRONA	OTH	ES	Participant	2
CONSEJO SUPERIOR DE INVESTIGACIONES CIENTIFICAS - CSIC	REC	ES	Participant	701
ORGANISATION PRODUCTEURS THON CONGELE	OTH	FR	Participant	2
ALFRED WEGENER INSTITUTE FOR POLAR AND MARINE RESEARCH	REC	DE	Participant	52
INSTITUT DE RECHERCHE POUR LE DEVELOPPEMENT	REC	FR	Participant	71
FUNDACION AZTI - AZTI FUNDAZIOA	REC	ES	Participant	26
FISKERIVERKET	REC	SE	Participant	4
UNIVERSITY OF A CORUNA	HES	ES	Participant	17
ASOCIACION NACIONAL DE ARMADORES DE BUQUES ATUNERO CONGELADORES -ANABAC	OTH	ES	Participant	2
MINISTRY FOR SUSTAINABLE DEVELOPMENT, THE ENVIRONMENT AND CLIMATE CHANGE	OTH	MT	Participant	1
UNIVERSITY OF TROMSO	HES	NO	Participant	39
UNIVERSITY OF TARTU	HES	EE	Participant	101
UNIVERSITY OF LEICESTER	HES	UK	Participant	88
TECHNICAL UNIVERSITY OF DENMARK	HES	DK	Participant	409
MTU EESTI KALURITE LIIT	OTH	EE	Participant	2

## Team Composition

Team Size: members\*

GENDER				
Female	Male		Unknown	
14%	86%		0%	
SENIORITY				
Average	Junior		Senior	
0%	0%		100%	
PhD				
No		Yes		
29%		71%		
BACKGROUND				
Applied Sciences	Health Sciences	Humanities & Social Sciences	Natural Sciences	Unknown
14,29%	0%	71%	14%	0%

\*The data are based on the analysis of the provided project's Description of Work.

## DELIVERABLES AND PUBLICATIONS

DELIVERABLE NO.	DELIVERABLE NAME	DUE DATE OF DELIVERY (month)	ACTUAL SUBMISSION DATE: (month)
D1.1	Research gaps of unw, REC and Energia Klub	6	7
D1.2	Individual implementation strategy for CSO instruments	15	15
D2.1	Evaluation & correction	24	24
D2.2	Meta-research	30	-
D3.1	CSO-guidebook	36	-
D4.1	Status report on networking & training activities	12	12
D4.2	Status report on networking & training activities	24	30
D4.3	Final report on networking & training activities	30	30
D5.1	Homepage	3	-
D5.2	Dissemination strategy concept	12	12
D5.3	Dissemination strategy evaluation	24	-
D5.4	Conference report	36	-
D5.5	Final plan for the use and dissemination of foreground	36	-
D6.1	Kick-off report	3	3
D6.2	18 months activity report & project budget	18	-
D6.3	36 months activity report & project budget	36	-
D6.4	Final report & project budget (including revision)	36	-
D6.5	Report on wider societal implications	36	-

Although project partners specified in their deliverables the drafting of scientific publications, their titles cannot be found.

## MAIN SOURCES

### Documentary review:

The eCORDA;  
CORDIS database;  
OPENAIRE database;  
GAP1 CONSORTIUM (2007), Annex 1 - Description of Work  
GAP1 CONSORTIUM (2009), final report



## **THE EUROPEAN "ARTS & SCIENCES" SAILING FESTIVAL "HULDA"**

**Framework Programme: FP7**

**Action line/Part: 5.3 Science and Society communicate**

**Activity:**

**Area: 5.3.0.3 Encouraging a European dimension at science events targeting the public**

**Dimension: Civil Society and Civil Participation**

**Tool: Coordination and support action**

**Project Call For Proposal: FP7-SCIENCE-IN-SOCIETY-2007-1**

**Status: Closed**

**Total cost: € 1 011 619**

**Total EU funding: € 800 000**

**Website: Website no longer available**

**Period: 01/05/2008 - 31/12/2010**

**Subjects: Coordination and Cooperation - Education and Training - Information and Media - Scientific Research - Social Aspects**

**Project ID and Acronym: ID: 217651, ACRONYM: HULDA**

### **BACKGROUND AND CONTEXT OF THE PROJECT AND STRATEGIC NEEDS**

Bringing 'hard sciences' closer to laypeople is a crucial challenge, which can be faced by combining scientific events with arts and performance. The connection between these dimensions of human civilization may seem opaque but it can be easily explained by the importance of the notion of creativity and curiosity for both of them. This combination, partially attempted in the past but lacking a big-scale long-lasting path of development, can both foster an interdisciplinary approach to science, also underlining the importance of science communication, and enhance the attractiveness of science among youngsters and laypeople in general. It can also contribute to build relationships among different art- and science-related institutions and organisations, which otherwise would have little or no chance to cooperate. The need of such a network also reflects the current need for common frameworks, exchanges of know-how, know-who and visibility among interested stakeholders.

### **SPECIFIC PROJECT OBJECTIVES**

The HULDA project firstly aimed at creating a long-lasting network with pan-European bodies involved in the organization of science events, major science centres and art institutions, so as to maximise the visibility and attractiveness of science and art exhibitions, exchanging know-how, reaching new audiences and foster collaboration between artists and scientists. In particular, the project envisaged an itinerant festival across 10 European countries, moving aboard the M/S HULDA and exhibiting the art works of Turkish scientist and artist Ilhan Koman. This set of events aimed at:

- Enhancing the engagement of laypeople in art and science, through the organisation of local workshops and exhibitions;
- Advertising science activities through the co-organisers locally and on a pan-European level so as to attract new audiences;
- Raising awareness on the importance of science communication among young scientists and students; and
- Permitting to sustain a public permanent infrastructure dedicated to 'Arts and Science' events in Europe.

The project is in line with the major ERA priority of optimal circulation of scientific knowledge to guarantee access to and uptake of knowledge by all. Furthermore, by bringing together under a common initiative several individuals and institutions representing different interest areas, based in 10 different countries and of different scales, the project address the European call to encourage co-operation and networking between science museums, science centres and the organisers of national and regional events, by creating synergies to conceive and exchange ambitious and interactive exhibitions.

### **SaS/SiS Programme objectives/Activity Lines**

The objectives are not entirely relevant with those foreseen for the Activity line, but they indirectly tackle the need to address the ambiguous feelings expressed by citizens regarding knowledge of and the potential benefits from science and technology; and they also could be meaningful in the process of fighting the perceived isolation of science from everyday realities of Europeans by providing a wider public with more scientific information and enabling the public to engage with science.

### **SaS Action Plan**

The project objectives are relevant not only with regards to action 7 (Network scientific events throughout Europe), but also to action 20 (Organise local and regional dialogues on "Science and Society"), by structuring a dialogue between art and science.

## **PROJECT RESULTS AND OUTCOMES**

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### **Main achievements according to project objectives**

The project consortium successfully organised the HULDA festival, using the M/S HULDA (a centenarian sailing ship) as a travelling venue. Activities and events have been arranged in 9 European port cities and a final workshop and exhibition have been held in Istanbul, final destination of the M/S HULDA. Duration of the project was 32 months and HULDA's main results and outcomes were:

- A **student competition** attracting students from Universities of the 10 port cities, who submitted art works representing scientific phenomena ;a jury composed of 8 experts voted for the 10 most valuable pieces, to be exhibited during the final event in Istanbul;
- The production of a considerable amount of digital, electronic and printed material, as described in the Dissemination section;
- The **arrangement of 10 local sets of events**, in 10 European port cities where M/S HULDA and the itinerant exhibition moored from Stockholm (27 March – 5 April 2009), through Amsterdam (8 – 17 May 2009), Antwerp (29 May – 7 June 2009), Bordeaux (17 – 26 July 2009), Lisbon (4 – 13 September 2009), Barcelona (18 – 28 March 2010), Naples (7 – 14 May 2010), Malta (3 -13 July 2010), Thessaloniki (27 August – 5 September 2010), to Istanbul, its final destination (25 September – 23 November 2010). In Istanbul, along with the itinerant exhibition aboard the HULDA, three other exhibitions took place, one presenting the art works of the winners of the competition, one showing photos and videos from the Festival and one exhibiting other works of art by Koman. The exhibitions were linked with four international events on-going in the host cities and attracted approximately 24 000 individuals in total, also welcoming groups of visually impaired and mentally disabled individuals;
- The **arrangement of local workshops** running in parallel with the sailing Festival: the workshops engaged a total audience of 6 600 students and 320 adults on 27 scientific topics;
- The organisation of a **Final conference** (22 September 2010, Istanbul), where the Festival achievements were presented to all the participants of the project and to the general public.

Progress of each WP including deliverables and associated milestones were not always submitted on due time during the project lifetime and sometimes the exact definition of the deliverables, as envisaged in the Description of Work, was not respected. Despite these late deliveries, probably due to the peculiarly itinerant nature of the project, all the due deliverables were eventually submitted.

The student competition attracted a lower number of contestants (25) than expected, also because of the highly strict rules of participation, including the fact that participation had been restricted only to youngsters attending educational institutions of the 10 cities. Other problems were encountered mainly due to adverse weather conditions (exhibition in Naples was shortened of two days because of a storm, losing about 200 visitors), and technical problems, but they were promptly discussed and solved, and events and deadlines rescheduled with minor shifts and complications. These problems did not affect the overall implementation of the Festival and the itinerant exhibition, which made an extra stop in Escale à Sète, to attend a festival dedicated to historical boats and was among the most publicised events in FP7.

### **Main achievements according to Programme objectives**

The project implemented an itinerant festival, calling together under a common initiative 14 institutions from 10 European countries. This is in line with the European strategic need of encouraging co-operation and networking between science museums, science centres and the organisers of national and regional events, by creating synergies to conceive and exchange ambitious and interactive exhibitions, enhancing a European dimension at science events targeting the general public (activity line 5.3.0.3). It also delivered activities representing effective science communication to a wide public across Europe.

### **Main achievements according to SiS Dimensions**

The project was relevant for the SiS 'Civil society and citizen participation' dimension, even though it implied a rather outdated conception of citizen participation. In fact, the workshops and the competition called for an active response

to scientific and artistic contents, but the overall exhibition did not require the engagement of or asked for a feedback from the audience, apart from accounting for blogs containing visitors' opinions (one-directional approach). HULDA was also relevant as regards science literacy: the idea of combining interests for the arts with that for 'hard science' is a notable experiment, it promoted the understanding of reciprocal influence between science and culture, and addressed specifically an audience of youngsters, confirming the trend of valorising opportunities of informal education.

### **DISSEMINATION AND ENGAGEMENT ACTIVITIES AIMED AT TRANSFERRING THE PROJECT RESULTS TO WIDER COMMUNITIES**

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Dissemination was the core dimension of the project. The exhibitions and parallel events attracted 25 000 visitors, also thanks to the link of HULDA festival with other events, such as the 'Cap Sciences' in Bordeaux or Malta Arts Festival. Among the participants of the Consortium, there was an international PR company, who was planned to take care of the promotion of the events world-wide, distributing advertising material and information. Co-organisers envisaged the mobilisation of local authorities and media in order to maximise the echo of the events, and planned to exploit their already existing networks, mailing lists and newsletter recipients' lists, to send invitations, find participation and further sponsorship.

The Consortium produced a remarkable amount of promotional material, including brochures, postcards, posters, and catalogues, used to advertise the festival in general and the local events, along with almost 1200 photographs, 57 chapters of the website representing all the steps of the project, 10 pieces of video footage introducing Koman's exhibition, 6 videos promoting workshops, HULDA, the festival and local events. It also launched a website (<http://www.huldafestival.org>), no longer active, including information on the upcoming events and informative and audio-visual material from them. The website obtained more than 31 000 visits from month 11 to 32.

A press kit in English was released and subsequently translated and integrated in Swedish, French, Greek, Turkish, and Italian. Press releases were also distributed to national and international media. A special press meeting was also organised in Istanbul and gathered 28 national journalists from important broadcasters and news agencies. The Consortium included a total of 1226 pieces of media coverage Europe-wide (62% online, 21% daily news, 11% journals, 6% TV and radio), but mainly in Turkish language (545 items), and calculated the outreach of approximately 10 million individuals. Traditional media coverage was sensibly lower than it was expected at the outset of the project.

### **PROJECT IMPACTS**

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At the outset of the project, HULDA was expected to **enlarge the audience of science communication through exhibitions at a European level**, and thus raise more awareness about science communication among scientists and about European research and scientific contents among laymen. Furthermore, the project was expected to indirectly foster scientific careers, addressing youngsters and pupils and engaging them in workshop activities, and enhance reciprocal understanding of science and society.

The composition of the Consortium shows a relatively low centrality, with only two institutions among the best 10% in FP7, namely the Turkish Bogazici Universitesi and the Maltese Office of the Prime Minister.

No publications resulted from the project, which furthermore had no impact on policies and informed no subsequent scientific exhibition management. Social media coverage of the project during its period of life and after its conclusion is far higher than SiS average, including respectively 161 and 48 posts, mainly from Facebook, Twitter and individual blogs.

In August 2012, a second edition of the HULDA project was arranged and the vessel set sail for its new journey around the Mediterranean. The starting point was the city of Amfilochia and the Municipality of Amfilochia financially supported the project. In the first port, three emerging artists implemented workshops for the public, inviting the participants to create works drawing inspiration and materials from their natural and urban environment.

### **PATH-BREAKING ADVANCEMENTS**

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The project attempts an original approach to science exhibitions and communication, implementing a fruitful cooperation between art and science. Taking inspiration from the core material of the exhibition, the art works of Ilhan Koman, the consortium provided the audience with the combined experience of artistic appreciation and understanding of scientific phenomena.

### **BEST PRACTICES**

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None.

### **EU ADDED VALUE OF THE PROJECT**

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The EU added value of the HULDA project seems to be relevant. With good probability, the itinerant nature of the exhibition and its high costs would have been hardly sustained if the project could only count on local sponsorship.

Furthermore, the EU dimension permitted the Consortium to link with other artistic and scientific initiatives on-going in the interested cities, maximising the outreach of the local events.

## **PARTICIPANTS AND RESEARCH TEAM**

### **Participants**

Number of participants: 14

Number of countries involved: 10

	Type	Country	Role	Previous participations to FP
ILHAN KOMAN KULTUR VE SANAT VAKFI		TR	Coordinator	
TURKEY SCIENCE CENTERS FOUNDATION		TR	Participant	
STICHTING DE LEVANTE		NL	Participant	
OFFICE OF THE PRIME MINISTER		MT	Participant	
MARKOM LEO BURNETT REKLAM HIZMETLERI AS		TR	Participant	
KOMANS KONSTFORENING		SE	Participant	
KOMAN KORHAN FUAD		SE	Participant	
FLANDERS TECHNOLOGY INTERNATIONAL		BE	Participant	
CONSORCI DE LES DRASSANES REIALS I MUSEU MARITIM DE BARCELONA		ES	Participant	
CITTA DELLA SCIENZA SCPA		IT	Participant	
CIENCIA VIVA - AGENCIA NACIONAL CULTURA CIENTIFICA E TECHNOLOGICA		PT	Participant	
CHRISTOS SAVVIDIS - ARTBOX		GR	Participant	
CAP SCIENCES		FR	Participant	
BOGAZICI UNIVERSITESI		TR	Participant	

### **Team Composition**

Team Size: members\*

GENDER				
Female	Male		Unknown	
29%	33%		38%	
SENIORITY				
Average	Junior		Senior	
5%	14%		81%	
PhD				
No	Yes			
81%	19%			
BACKGROUND				
Applied Sciences	Health Sciences	Humanities & Social Sciences	Natural Sciences	Unknown
0%	9%	33%	14%	52%

\*The data are based on the analysis of the provided project's Description of Work.

## DELIVERABLES AND PUBLICATIONS

Expected deliverables (as in DOW) and actual deliverables are not matching. Due date are also different.

DELIVERABLE NO.	DELIVERABLE NAME	DUE DATE OF DELIVERY (month)	ACTUAL SUBMISSION DATE: (month)
D1.1	Boat loan agreements	12	13
D1.2	Hulda Festival presentation brochure	12	17
D1.3	Hulda Festival website	1-32	17
D2.1	Curators report	30	34
D2.2	Games and experiments catalogue	12	35
D3.1	Hulda technical report	7	17
D3.2	Hulda sea route and schedule	10	32
D4.1	Local agreements (completing the initial GA consortium agreement)	10	17
D4.2	Finalised action plan = minutes of the Istanbul kick-off meeting	10	
D5.1	Hulda Festival press kits	11	14
D5.2	Hulda student competition posters	12	22
D5.3	Hulda student competition flyers	12	22
D5.4	Hulda Festival posters	12	32
D5.5	Hulda Festival flyers	12	17
D5.6	Hulda Festival postcards; actual title : Hulda Festival photo supply	12	32
D5.7	Hulda Festival photo supply; actual title : Media Contacts Coverage	30	32
D5.8	Postal mailing	1-33	35
D6.1	Student texts/competition results ; actual title : Student Competition Call Draft	29	21
D6.2	actual title : Student Competition Call	—	22
D6.3	actual title : List of experts for the jury	—	21
D6.4	actual title : Student competition results	—	30
D7.1	Hulda Festival catalogue	12	14
D8.1	Videos and photos database	2-20	32
D8.2	Hulda Festival short movies	2	32
D8.3	Hulda Festival photo exhibition	29	32
D9.1	Hulda Navigation reports	12-28	34
D10.1	Report on local exhibitions	34	32
D11.1	Report on local workshops	34	32
D12.1	Conference minutes	30	33
D13.1	Report on final exhibition	34	32
D14.1	Report on final workshop	34	32

## MAIN SOURCES

<http://www.artbox.gr/2012-hulda-festival-ii.html>

<https://ec.europa.eu/research/participants/portal/desktop/en/opportunities/fp7/calls/fp7-science-in-society-2007-1.html>

- HULDA Consortium (2008). Description of Work. Annex I.
- HULDA Consortium (2009). Hulda Festival Presentation Brochure.
- HULDA Consortium (2009). Hulda Festival Website.
- HULDA Consortium (2009). Minutes of the Istanbul kick-off meeting.
- HULDA Consortium (2010). Hulda Festival Photo Supply.
- HULDA Consortium (2010). Media Contacts Coverage.
- HULDA Consortium (2010). Student Competition results.
- HULDA Consortium (2010). Videos and Photos Database.
- HULDA Consortium (2010). Hulda Festival short movies.
- HULDA Consortium (2010). Hulda Festival Photo Supply.
- HULDA Consortium (2010). Hulda Festival Photo Exhibition.
- HULDA Consortium (2010). Report on local exhibitions.
- HULDA Consortium (2010). Report on local workshops.
- HULDA Consortium (2010). Report on final exhibition.
- HULDA Consortium (2010). Report on final workshop.
- HULDA Consortium (2011). Hulda Navigation report.
- HULDA Consortium (2011). Conference minutes.

## **FACILITATING ALTERNATIVE AGRO-FOOD NETWORKS (AAFNS): STAKEHOLDER PERSPECTIVES ON RESEARCH NEEDS "FAAN"**

**Framework Programme: FP7**

**Action line/Part: 5.1 A more dynamic governance of the science and society relationship**

**Activity: 5.1.2 Broader engagement to anticipate and clarify political, societal and ethical issues**

**Area: 5.1.2.1. Developing governance on science-related questions**

**Dimension: Civil Society and Citizen Participation**

**Tool: Coordination and support action**

**Project Call For Proposal: FP7-SCIENCE-IN-SOCIETY-2007-1**

**Status: Closed**

**Total cost: € 952 249**

**Total EU funding: € 799 415**

**Website: [www.faanweb.eu](http://www.faanweb.eu)**

**Period: 01/02/2008 - 31/03/2010**

**Subjects: Coordination and Cooperation - Scientific Research**

**Project ID and Acronym: ID: 217820, ACRONYM: FAAN**

### **BACKGROUND AND CONTEXT OF THE PROJECT AND STRATEGIC NEEDS**

After several food scandals of the last years, such as BSE, dioxins and pesticide residues, public opinion distrust in agro-industrial food quality is growing stronger. At the same time, alternative food production chains are emerging. These "alternative agro-food networks", in line with the new 'economy of quality' and bio-economy, are now growing in number and constitute a new object of research. Research is needed on whether these AAFNs can actually produce a better quality food and how effectively they can contribute to make agriculture more sustainable socially and ecologically. Research on how AAFNs work and function as a complex system in Europe, is also expected. It will enhance a better understanding of their different natures and complex dynamics of interrelations between actors.

### **SPECIFIC PROJECT OBJECTIVES**

The FAAN project firstly aimed at producing a thorough research on Alternative Agro-Food Networks (AAFNs), focussing in particular on how current European, national and regional policies inform the development of AAFNs, and how policy frameworks could better facilitate them. Furthermore, the project research efforts addressed the following specific objectives:

- To envisage future research needs relevant for AAFNs;
- To analyse how AAFNs can constitute a basis to broaden EU research policies on the 'knowledge-based bio-economy';
- To implement participatory action through a co-operative research activity by involving Civil Society Organisations in research; and
- To identify problematics and develop a methodology for co-operative research through a specific case.

The inclusion of CSOs in research is relevant within the 5.1.2 Activity of the FP7-2007-1 Call of Proposals, which stated the need of stimulating participation of civil society organisations (CSOs) in research activities. Co-operative research and constant meta-analysis of the co-operation on the one side, and inclusion of CSOs in shaping new research path is in line with the abovementioned Call, which highlighted the importance of introducing in academic research the complementary visions and knowledge of CSOs in domains such as sustainable development, food safety, public health, well-being, and renewable energy. As far as the Innovation Union commitments are concerned, the focus on current policies could contribute to developing screening of the regulatory framework in key areas, starting with those linked to eco-innovation, identifying rules that need to be improved or updated and new rules that need to be implemented in order to provide sufficient and continuous incentives to drive innovation.

### **SaS/SiS Programme objectives/Activity Lines**

Project's specific objectives parallel the relevant activity line objective of encouraging public engagement and the participation of civil society organisations throughout the research process, creating a more constructive environment for researchers and for society as a whole.

### **SaS Action Plan**

The project is in line with action 20 (Organise local and regional dialogues on "Science and Society") of SaS Action Plan, because it aims at nurturing the dialogue and the co-operation between CSOs and research milieu in a number of regions across Europe.

## **PROJECT RESULTS AND OUTCOMES**

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### **Main achievements according to project objectives**

The project consortium benefited from the joint activities of one academic institution and one CSO per country and managed to implement research both on the content and on the methodology level. Duration of the project was 26 months and FAAN's main results and outcomes were:

- The implementation of a **methodological framework for co-operative research**, combining literature review and overview of existing practices with empirical analysis of the on-going process of research within the project; the methodology underwent a **constant evaluation**, within a Work Package running in parallel with all the other activities, and assessments on its validity and recommendations for future co-operative researches have been finalised;
- The **in-depth analysis of a number of national case studies on Local Food Systems** in the five countries represented within the Consortium, focussing on existing policies, which led to assessments on how these policies facilitate, hinder or shape the development of aafns and to policy recommendations;
- A **comparative analysis of aafns**, by investigating stakeholders' views regarding the current state and development of aafns and factors influencing this, with a special focus on local case studies;
- The **arrangement of 7 Scenario analysis workshops (1 in France, Hungary, and Austria, 2 in the UK and Poland)**, gathering CSOs representatives, academic experts and authorities' representatives, policy makers, producers and consumers to assess strategies and best policy options by evaluating different future scenarios for aafns;
- The **arrangement of a European workshop in Brussels**, presenting the outcomes of the research activities to 56 stakeholders and policy-makers (including 16 representatives of Partner Institutions of the Consortium) and involving them in the design of strategies to enhance a further effectiveness of European and local policies regarding aafns and to promote capacity building and networking in the field;

Progress of each WP including deliverables and associated milestones were submitted with moderate delays during the project lifetime, generally because of inaccurate calculation of the amount of time needed to pursue and finalise the activities.

### **Main achievements according to Programme objectives**

The project implemented a co-operative research on AAFNs, including both academic institutions and Civil Society Organisations, and focusing both on the content level and on the methodological framework for co-operation in research. This positively answers to the European strategic need of supporting CSOs participation as partners in activities which will prepare them for further involvement in research, such as the exploration of possible forms of cooperation with research centres and other research stakeholders. In particular, being the findings of the project relevant both on the level of policy evaluation and design and on the meta-level of designing and evaluation a methodology for CSOs to engage with academic research, the project outcomes give insights on the use of co-operative research at European level in fields of societal interest (paragraph 1.2.1.2 of the Action line 5.1). As far as the expected impact highlighted by the Commission for this action are concerned, the project moved towards an increased participation and engagement in research activities by civil society.

### **Main achievements according to SiS Dimensions**

The project was relevant for the SiS 'Civil society and citizen participation' dimension, and it constituted an attempt of implementing an exchange of knowledge between the Academic institutions and the Civil Society Organisations involved in the research activities. Anyway, the project reports sometimes showed that the guidance of academic figures to partners from the civil society was more conspicuous than the active contribution of those partners to shaping knowledge and methodologies. Therefore the project's position within the dimension is that of a preliminary and preparatory step towards a full two-way exchange of knowledge between academia and society. The project posits itself in the path from a one-directional approach to a more inclusive involvement of civil society in research activities.



## **DISSEMINATION AND ENGAGEMENT ACTIVITIES AIMED AT TRANSFERRING THE PROJECT RESULTS TO WIDER COMMUNITIES**

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Dissemination of the activities of the project was implemented by the creation and constant updating of the project website at [www.faanweb.eu](http://www.faanweb.eu), including information on the project, news, partners' profiles and a repository of similar projects. Other tools for dissemination were:

- **Conference, Seminar and Workshop presentations**, such as two presentations in Belgium and three dedicated workshops in Poland, Conference of the European Society for Rural Sociology Congress in Vaasa (2009), Workshop "The Knowledge-based economy – a critical perspective" in Graz (2009), among others.
- **Publications**: the final report of the project has been published on the Polish Rural Forum Bulletin, five articles in German and one in English have been published on German journals and magazines (see Publications table below).

The national Scenario analysis workshops and the international Workshop in Brussels were also useful tools for networking and enhancing a wider public outreach of project findings. The outreach activities are in line with the strategic guidelines envisaged in the Description on Work.

## **PROJECT IMPACTS**

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At the outset of the project, FAAN was expected primarily to contribute to the **engagement of civil society with research activities and research agenda setting**. Furthermore, the project was expected to indirectly foster participation of CSOs in the European research programmes and funding, thanks to the international networks the Partners are part of; to raise awareness of trans-disciplinary engagement in research; and to contribute to the understanding of the role of AAFNs in rural development and their potential to help the survival of small rural business.

The composition of the Consortium shows a relatively low centrality, even though one institution is among the best 1% and one is in the best 5% in FP7, namely the Open University and the Szent Istvan University respectively. Furthermore, none of the academic institutions of the Consortium is found in the CWTS Leiden Ranking.

Different publications resulted from the project: apart from the publication of the final report, a number of articles on German journals have been disseminated, and several articles in English have been accepted and published in journals and online. Social media coverage of the project during its period of life and after its conclusion is irrelevant.

The project's findings have been cited in at least 6 publications available online and constitute a starting point for at least another FP7-funded project, namely FOODLINKS<sup>48</sup>, whose deliverables partially accept and restate FAAN's recommendations.

## **PATH-BREAKING ADVANCEMENTS**

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Among others in FP7, this project is path-breaking in informing and designing a methodology for co-operative research involving academic and non-academic stakeholders. Furthermore, the project proposes, experiences and evaluates a trans-disciplinary approach in co-operative research as a tool for including different voices within a more democratic production of knowledge.

## **BEST PRACTICES**

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The FOODLINKS project exploited outcomes of the FAAN project regarding the survey of AAFNs in Europe, and also explicitly adopt FAAN's recommendations to relevant stakeholders within its own set of recommendations regarding short food supply chains as drivers of sustainable development.

## **EU ADDED VALUE OF THE PROJECT**

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The EU added value of the FAAN project involves the effectiveness in its capacity building and the choice of the research topic. According to the Consortium, agriculture is deeply linked to the European regulatory framework and the subsidy system, which function as instruments of the EU Common Agricultural Policy. That is way engaging the European Commission with the project seems indispensable for the Consortium. Moreover, it is possible that without

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<sup>48</sup> FOODLINKS is a Collaborative project funded by the European Commission within the Framework Programme 7, FP7-ENV-2010 Call. It aimed at developing and experimenting with new ways of linking research to policy-making in the field of sustainable food consumption and production, by establishing Communities of Practice and fostering cooperation among researchers, policy makers and civil society actors.



informing the project with a European approach, it would have been difficult to reach many stakeholders and policy-makers at the European level, as it was done in the Brussels final workshop.

## PARTICIPANTS AND RESEARCH TEAM

### Participants

Number of participants: 10

Number of countries involved: 5

	Type	Country	Role	Previous participations to FP
INTERDISZIPLINARES FORSCHUNGSZENTRUM FUR TECHNIK, ARBEIT UND KULTUR		AT	Coordinator	5
VEDEGYLET EGYESULET		HU	Participant	1
OPEN UNIVERSITY		GB	Participant	80
OBV-VIA CAMPESINA AUSTRIA - OSTERREICHISCHE BERG UND KLEINBAUER INNENVEREINIGUNG		AT	Participant	2
INSTITUT SUPERIEUR DES SCIENCES AGRONOMIQUES, AGROALIMENTAIRES, HORTICOLES ET DU PAYSAGE		FR	Participant	7
GENEWATCH		GB	Participant	1
FORUM AKTYWIZACJI OBSZAROW WIEJSKICH		PL	Participant	1
FEDERATION REGIONALE DES CENTRES D'INITIATIVES POUR VALORISER L'AGRICULTURE ET LE MILIEU		FR	Participant	3
SZENT ISTVAN UNIVERSITY		HU	Participant	26
UNIVERSITY OF TORUN		PL	Participant	10

### Team Composition

Team Size: members\*

GENDER				
Female		Male		Unknown
55%		42%		3%
SENIORITY				
Average		Junior		Senior
6%		45%		48%
PhD				
No		Yes		
55%		45%		
BACKGROUND				
Applied Sciences	Health Sciences	Humanities & Social Sciences	Natural Sciences	Unknown
0%	0%	64%	21%	3%

\*The data are based on the analysis of the provided project's Description of Work.

## DELIVERABLES AND PUBLICATIONS

DELIVERABLE NO.	DELIVERABLE NAME	DUE DATE OF DELIVERY (month)	ACTUAL SUBMISSION DATE: (month)
D.1	Co-operative research design on AAFNs.	6	10
D.2	Relevant policies and future research needs for AAFNs, for Europe as a 'knowledge-based bio-economy'	24	28
D.3	Comparative analysis of the context of AAFNs at the local, national and European level	20	21
D.4	Local participatory workshops on AAFNs: one in each country (5)	15	17
D.5	European scenario analysis workshop	21	26

DELIVERABLE NO.	DELIVERABLE NAME	DUE DATE OF DELIVERY (month)	ACTUAL SUBMISSION DATE: (month)
D.6	Project's webpage	3	3
D.7	Evaluation report	25	33
D.8	Final report of the project: Experiences of CR on AAFNs	26	?

Publications no.	PUBLICATION	LINK (when available)
1.	Sandra Karner (2008), "FAAN – Facilitating Alternative Agro-food Networks" (German). <i>Unisono</i> 1/2008	<a href="http://www.faanweb.eu/sites/faanweb.eu/files/FAAN_Sandra_Inisono_2_2008.pdf">http://www.faanweb.eu/sites/faanweb.eu/files/FAAN_Sandra_Inisono_2_2008.pdf</a>
2.	Sonja Petrovic (2008), "Forschungsproject FAAN" (German). <i>Wege für eine bäuerliche Zukunft</i> , 5	<a href="http://www.faanweb.eu/sites/faanweb.eu/files/FAAN_Sonja_BZ_5_2008.pdf">http://www.faanweb.eu/sites/faanweb.eu/files/FAAN_Sonja_BZ_5_2008.pdf</a>
3.	Nicoleta Chioncel and Sandra Karner (2009), "Co-operative research' Ein neuer Weg zur Einbindung von Gesellschaft in die Forschung" (German). <i>Soziale Technik</i> , 1	<a href="http://www.faanweb.eu/sites/faanweb.eu/files/San_Nico_ST1_09_gesamt.pdf">http://www.faanweb.eu/sites/faanweb.eu/files/San_Nico_ST1_09_gesamt.pdf</a>
4.	Sonja Petrovics, Sandra Karner and Irmi Salzer (2009), "'Selbsterkämpfte Handlungsmöglichkeiten' 30 Jahre ErzeugerInnen-VerbraucherInnen Netzwerke in Österreich" (German). <i>Österreichische Schriftenreihe für Landschaft und Freiraum</i> , 14	<a href="http://www.faanweb.eu/sites/faanweb.eu/files/Zoll14_petrovics.pdf">http://www.faanweb.eu/sites/faanweb.eu/files/Zoll14_petrovics.pdf</a>
5.	Sandra Karner and Sonja Petrovics (2009), "FAAN - BAUERNMARKT & CO "Entwicklungswege der Direktvermarktung" Ein Szenarioanalyse-Workshop" (German). <i>Unisono Plus</i> 3	<a href="http://www.faanweb.eu/sites/faanweb.eu/files/FAAN_2009_10_UNISONO.pdf">http://www.faanweb.eu/sites/faanweb.eu/files/FAAN_2009_10_UNISONO.pdf</a>
6.	Nicoleta Chioncel and Sandra Karner (2009), "A Social Learning Viewpoint on 'Co-operative Research'". <i>Soziale Technik</i> , 4	<a href="http://www.faanweb.eu/sites/faanweb.eu/files/SoTe_4_09_chioncel_karner.pdf">http://www.faanweb.eu/sites/faanweb.eu/files/SoTe_4_09_chioncel_karner.pdf</a>
7.	Karner, S, Dower, M, Chioncel, N, Berger, B, Balázs, B, Bodorkós, B, Budzich-Szukala, U, Darrot, C, Durand, G, Goszczynski, W, Juroszek, L, Kelemen, E, Kiss, C, Kniec, W, Korzensky, A, Kwaterna, K, Levidow, L, Maréchal, G, Pataki, G, Petrovics, S, Price, B, Psarikidou, K, Salzer, I, Sarbu-Simonyi, B, Siner, O, Spök, A, Stankiewicz, P, Strutzmann, I, Le Rohellec, C, Wallace, H (2010). <i>Local Food Systems in Europe: Case studies from five countries and what they imply for policy and practice</i> . IFZ Graz.	<a href="http://www.faanweb.eu/sites/faanweb.eu/files/FAAN_Booklet_PRINT.pdf">http://www.faanweb.eu/sites/faanweb.eu/files/FAAN_Booklet_PRINT.pdf</a>
8.	Levidow, L., Price, B, Psarikidou, K., Szerszynski, B. and Wallace, H. (2010) "Urban Agriculture as Community Engagement". <i>Urban Agriculture Magazine</i> , no. 24:43-45	
9.	Levidow, L. and Psarikidou, K. (2011) "Food Relocalisation for Environmental Sustainability in Cumbria". <i>Sustainability</i> , 3(4), 692-719	
10.	Levidow, L. and Psarikidou, K. (2011) "Making Local Food Sustainable in Manchester". In Andre Viljoen and Hans Wisekerke (Eds.) <i>Planning for Sustainable Food Systems</i> . Wageningen Academic Publishers.	
11.	G Psarikidou, K. and Szerszynski, B. (2012) <i>Growing the Social: alternative agro-food networks and social sustainability in the urban ethical foodscape</i> . <i>Sustainability: Science, Practice and Policy</i>	

## MAIN SOURCES

FAAN Consortium (2007). Description of Work. Annex I.

FAAN Consortium (2008). Co-operative research design on AAFNs.

FAAN Consortium (2009). Local participatory workshops on AAFNs: one in each country (5).

FAAN Consortium (2010). Relevant policies and future research needs for AAFNs, for Europe as a 'knowledge-based bio-economy'.

FAAN Consortium (2010). Comparative analysis of the context of AAFNs at the local, national and European level.

FAAN Consortium (2010). European scenario analysis workshops.

FAAN Consortium (2010). Evaluation report.

FAAN Consortium (2010). Final Report: Local Food systems in Europe – Case studies from five countries and what they imply for policy and practice.

Websites:

<http://www.faanweb.eu/>

[http://www.foodlinkscommunity.net/fileadmin/documents\\_organicresearch/foodlinks/CoPs/evidence-document-sfsc-cop.pdf](http://www.foodlinkscommunity.net/fileadmin/documents_organicresearch/foodlinks/CoPs/evidence-document-sfsc-cop.pdf)

<http://www.genomicsnetwork.ac.uk/cesagen/research/24938>

[http://www.research.lancs.ac.uk/portal/en/publications/growing-the-social-alternative-agrofood-networks-and-social-sustainability-in-the-urban-ethical-foodscape\(85aeaab0-9c15-43ec-9cb1-ad0e1d75e2b4\).html](http://www.research.lancs.ac.uk/portal/en/publications/growing-the-social-alternative-agrofood-networks-and-social-sustainability-in-the-urban-ethical-foodscape(85aeaab0-9c15-43ec-9cb1-ad0e1d75e2b4).html)

## **FACILITATORS' UNITS NETWORK FOR DEBATES-"FUND"**

**Framework Programme: FP7**

**Action line/Part: 5.1 A more dynamic governance of the science and society relationship**

**Activity: 5.1.1 Better understanding of the place of science and technology (S & T) in society**

**Area: 5.1.1.5 Public understanding of science and promotion of public debate**

**Dimension: Civil Society and Citizen Participation**

**Tool: Coordination and support action**

**Project Call For Proposal: FP7-SCIENCE-IN-SOCIETY-2008-1**

**Status: Closed**

**Total cost: € 317 600**

**Total EU funding: € 295 110**

**Website: <http://www.playdecide.eu/>**

**Period: 01/03/2009 - 28/02/2011**

**Subjects: Coordination and Cooperation - Scientific Research**

**Project ID and Acronym: ID: 230474, ACRONYM: FUND**

### **BACKGROUND AND CONTEXT OF THE PROJECT AND STRATEGIC NEEDS**

Within the FP6 a number of projects devoted their efforts toward a further civil participation in science and technology, through debates and other forms of two-way communication. In particular, the DECIDE<sup>49</sup> project designed modules to enhance a fruitful engagement of several lay citizen in scientific debate and ensure their participation within the production and circulation of knowledge. At the same time, projects such as DOTIK<sup>50</sup> trained museum explainers and science centres to become effective mediators in participatory events. There was however a need to coordinate the local players, legacies of these and other projects, and include them into a multifaceted network.

### **SPECIFIC PROJECT OBJECTIVES**

The overall objective of FUND project was to create and facilitate a network of local actors in civil participation of science. Specifically, the project aimed at:

- Creating an open source/open content platform where to design and disseminate tools for the public engagement with science at local level;
- Exploiting existing resources and creating new ones in order to train and let "expert facilitators" prepare guidelines, scan for opportunities, establish connections between local actors; and
- Fostering interactions among local players and the emergence of local "hubs" based at science centres and museums.

The project objectives were in line with:

- The major **ERA** priority of optimal circulation of scientific knowledge to guarantee access to and uptake of knowledge by everyone.

### **SaS/SiS Programme objectives/Activity lines**

**SiS 2008-3.0.3.1** stated that science museums, science centres, libraries and organisers of science events in Europe had been developing valuable know-how in communicating science to the public but needed more synergies. The project aimed at tackling this lack of cooperation by providing tools for civil participation to science and capacity building actions. Furthermore, the focus given by the project Consortium to the urban/local dimension of networking within existing local players was very relevant for **SiS 2008.1.1.5.1**, which called for exchanges and co-operation between local actors concerning scientific culture and collaboration among Science Cities toward the creation of long-lasting networks. The objectives are not directly in line with the objectives foreseen by the Commission for this activity line.

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<sup>49</sup> DECIDE (ID : 6131) is a project participating in FP6 SaS Programme (Call for Proposal: FP6-2002-SCIENCE-AND-SOCIETY-1). It was developed as a tool for people to discuss and gain more insights in science and technology issues in response to needs for having a more involved and informed public throughout Europe.

<sup>50</sup> DOTIK (ID: 13699) is a project participating in FP6 SaS Programme (Call for Proposal: FP6-2003-SCIENCE-AND-SOCIETY-7) aiming at developing and testing methodologies for training Animators for a most effective science and society dialogue.

### SaS Action Plan

The project is relevant for action 20 of SaS Action Plan (Organise local and regional dialogues on "Science and Society").

### PROJECT RESULTS AND OUTCOMES

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#### Main achievements according to project objectives

The project consortium upheld a set of actions that favoured debates and dialogue-based participatory events at the local level, allowed local actors to co-operate and act effectively by training them as facilitators. FUND project lasted 24 months and its main results and outcomes were:

- A **web platform**, consisting of two spaces: a) an open source platform where to download the play kits for 27 different scientific topics (some of which available in 20 different languages) and upload "inspiring stories" of local exploitation of the DECIDE format; b) a Facebook page where users could connect, interact and stay updated. Since the launch of the platform, 27 projects were uploaded and nearly 150 events were reported in Europe;
- The **arrangement of an expert seminar** in September 2009, a kick off meeting where active users of the Playdecide tools joined a fruitful discussion with individuals active in the fields of democracy, community projects, design, advocacy and networks;
- The arrangement of a call for local collaborative initiatives to be funded within the microfund programme (13 projects were chosen among 34 submissions) and the exploitation and evaluation of these projects within the FUND network and through the DECIDE format of participatory debate;
- The **provision of training to facilitators**, by publishing the "manifesto" of discussion games, and by arranging four face to face seminars, held in Vienna, London, Rotterdam and Paris;
- Recommendations for future exploitation of formats, thanks to the **constant evaluation of the project**, in terms of **professional, local and network impact**.

Progress of each WP including deliverables and associated milestones were seldom submitted on due time during the project lifetime; little delays were registered mainly due to management issues, such as the change from subcontracting to internal development of the web platform. All the due deliverables were eventually submitted.

#### Main achievements according to programme objectives:

As far as the SiS-2008.1.1.5.1 line is concerned, the project successfully implemented actions that fostered the co-operation of local actors on scientific culture in an attractive way, such as the microFUND initiatives. It also implemented actions aimed at exchanging know-how in civil participation within science, such as the training activities. Furthermore, the project fostered co-operation among science museums and science centres choosing a consistent range of topics of particular interest and engaging in two-way communication with citizens and civil society organisations (SiS 2008.3.0.3.1). These achievements mirror the expected increase in cooperation between actors from different disciplines working on science and culture relation, and involvement of stakeholders in mainstreaming science into social life.

#### Main achievements according to SiS Dimensions

The project was relevant for the SiS 'Civil society and citizen participation' dimension. It implemented collaborative networks at the local level, enhancing the engagement of the audience in active debates through the PlayDecide format. Although peripheral, the local debates endorsed by the project allowed lay citizens and civil society organisations to experience participation in research, innovation, and policy making, moving towards a more inclusive involvement of civil society representatives.

### DISSEMINATION AND ENGAGEMENT ACTIVITIES AIMED AT TRANSFERRING THE PROJECT RESULTS TO WIDER COMMUNITIES

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The project Consortium launched the **web platform** at [www.playdecide.eu](http://www.playdecide.eu). This was an already existing web platform, legacy of the DECIDE project, and is said to have proven a successful means to enhance a wider outreach of the FUND project. The project was advertised also in the coordinator's **e-Newsletter**, which counted up to 3,000 addressees worldwide.

Furthermore, the Consortium produced one scientific article and presented the project in two extra European and two European conferences and in one workshop addressing the scientific community. It seems that the number of publications and occasions where to promote the project was lower than expected at the outset.

### PROJECT IMPACTS

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At the outset of the project, FUND was expected to **enhance a wide outreach of new formats for hosting, shaping and collecting feedback of the dialogue between citizens and scientists**

The composition of the Consortium showed a moderate centrality, with only the coordinator among the 10% most central organisations in FP7, namely the Association Européenne des Expositions Scientifiques, Techniques et Industrielles. Being central in a network means that the organisation does not only participate in several projects in the FP but it also participates with other important organisations, and has a high capacity to diffuse and spread information and knowledge, which increases the potential impact of the project. However, for what concerns the scientific attractiveness<sup>51</sup>.

The project actual impacts were:

- **Scientific impact:** one publication resulted from the project.
- **Social media impact:** social media coverage of the project during its period of life and after its conclusion was not relevant, with only two posts counted. However, during the lifetime of the project, the dedicated Facebook page gained nearly 400 followers.
- **Institutional and organisational impact:** According to the evaluation conducted within the project work plan by independent institutions, the networking activity was fruitful only in terms of re-activating already existing – but latent – connections among local actors. Differently, new-born networks were not successfully exploited by interested players and newly-come actors into already existing networks generally could not assume a central or active role within the network. No further exploitation of the PlayDecide format within the FUND network were reported, but participants to the microFUND initiatives showed in the final questionnaire the intention of keeping in touch with other partners of the network (mainly already existing and latent networks) to arrange future PlayDecide events or co-participate in research or collaborative action proposals.
- **Policy impact:** the project appears not to have had any impact on policies.

#### PATH-BREAKING ADVANCEMENTS

None.

#### BEST PRACTICES

None.

#### EU ADDED VALUE OF THE PROJECT

The EU added value of the FUND project seems to be relevant. At the outset of the project, the Consortium highlighted that they could not have had necessary funding to sponsor collaborative initiatives at the local level through the microFUND format, without the support of the European Commission.

#### PARTICIPANTS AND RESEARCH TEAM

##### Participants

Number of participants: 3

Number of countries involved: 3

	Type	Country	Role	Previous participations to FP
ASSOCIATION EUROPEENNE DES EXPOSITIONS SCIENTIFIQUES, TECHNIQUES ET INDUSTRIELLES		BE	Coordinator	15
SISSA MEDIALAB		IT	Participant	3
NEW ECONOMICS FOUNDATION		GB	Participant	5

##### Team Composition

Team Size: members\*

GENDER		
Female	Male	Unknown

<sup>51</sup> Potential scientific attractiveness of the participating organisations to the project is used, in our study, to evaluate the potential of the project to produce publications and other scientific outputs.

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33%	67%	0%		
<b>SENIORITY</b>				
Average	Junior	Senior		
0%	22%	78%		
<b>PhD</b>				
No		Yes		
78%		22%		
<b>BACKGROUND</b>				
Applied Sciences	Health Sciences	Humanities & Social Sciences	Natural Sciences	Unknown
33%	0%	67%	0%	0%

\*The data are based on the analysis of the provided project's Description of Work.

### DELIVERABLES AND PUBLICATIONS

DELIVERABLE NO.	DELIVERABLE NAME	DUE DATE OF DELIVERY (month)	ACTUAL SUBMISSION DATE: (month)
D1.1	Specification of the platform for technical subcontract	4	8
D1.2	Launch of open source platform	6	13
D2.1	Commented list (state of the art review) of previously elaborated information packages, training schemes, and other relevant knowledge for the FUND project	2	4
D2.2	Pre-programme of the FUND workshop	3	5
D2.3	Proceedings of the FUND workshop	6	8
D2.4	Indexed material made available on the web platform	8	12
D2.5	List of persons and training actions to be injected in WP3	8	10
D3.1	Detailed criteria for the microFUNDS subcontracting scheme, building on the discussions and results of WP2	9	10
D3.2	The call for the microFUNDS	10	11
D3.3	The list of the microFUNDS selected by the selection committee	12	15
D3.4	Trainees selection and programmes of the training workshops	14	18
D3.5	Feedback of the organized events uploaded on the web-platform	24	26
D3.6	Summary of the activities performed under the microFUNDS scheme	24	26
D4.1	Formative assessment and evaluation report on the project	8	12
D4.2	Summative evaluation report	24	24
D5.1	Fact sheet about the project	12	16
D5.2	Brochure (template that can be translated and printed on demand)	12	16
D5.3	Press and presentation kits (slides, photos and graphics)	12	16

Publications no.	PUBLICATION	LINK (when available)
	A. Bandelli, E. Konijn. "An experimental approach to strengthen the role of science centers in the governance of science". In <i>The Routledge Companion to Museum Ethics. Redefining Ethics for the Twenty-First Century Museum</i> . London: Routledge, pp. 164-173.	

### MAIN SOURCES

<http://www.playdecide.eu/>  
 FUND Consortium (2009). Description of Work. Annex I.  
 FUND Consortium (2009). Commented list (state of the art review) of previously elaborated information packages, training schemes, and other relevant knowledge for the FUND project.  
 FUND Consortium (2009). Proceedings of the FUND workshop.  
 FUND Consortium (2010). The list of the microFUNDS selected by the selection committee.

FUND Consortium (2010). Launch of open source platform.  
FUND Consortium (2010). First Periodic Activity Report.  
FUND Consortium (2011). Feedback of the organized events uploaded on the web-platform.  
FUND Consortium (2011). Summary of the activities performed under the microFUNDS scheme.  
FUND Consortium (2011). Summative evaluation report.  
FUND Consortium (2011). Second Periodic Activity Report.  
FUND Consortium (2011). Project Final Report.



## **PUBLIC INVOLVEMENT WITH EXHIBITION ON RESPONSIBLE RESEARCH AND INNOVATION – "PIER"**

**Framework Programme: FP7**  
**Action line/Part: -**  
**Activity: -**  
**Area: -**  
**Dimension: Civil Society and Citizen Participation**  
**Tool: Coordination and support action**  
**Project Call For Proposal: FP7-Adhoc-2007-13**  
**Status: Closed**  
**Total cost: € 529.839,60**  
**Total EU funding: € 500.000,00**  
**Website: <http://www.pier-project.eu/>**  
**Period: 01/01/2014 - 31/01/2015**  
**Subjects: Scientific Research - Social Aspects**  
**Project ID and Acronym: ID: 632084, Acronym: PIER**

### **BACKGROUND AND CONTEXT OF THE PROJECT AND STRATEGIC NEEDS**

The global context of this project is the new panorama for Research and innovation in Europe. With the recession triggered by the 2008 financial crisis and the public debt crisis in Europe, stabilising the financial and economic system in the short term while also taking measures to create economic opportunities for tomorrow has become the key challenge to address. Smart investment, notably in research and innovation, is vital in order to maintain high standards of living while dealing with pressing societal challenges such as climate change, an ageing population, or the move towards a more resource-efficient society.

Research and innovation have therefore been placed at the centre of the Europe 2020 strategy to promote smart, sustainable and inclusive growth. It will also help to bridge the gap between research and the market by helping innovative enterprises develop their scientific and technological breakthroughs into viable products and services with real commercial potential. Moreover the new European research programme will better integrate the connection between the scientific community and society at large. The challenge lies in creating a Research and Innovation policy driven by the needs of society and engaging all societal actors through inclusive participatory approaches.

### **SPECIFIC PROJECT OBJECTIVES**

The PIER project intervened in this framework by aiming to engage the public on Responsible Research and Innovation (RRI) in society, enhance the responsible approach in the implementation of research and highlighting its implications for the territorial development and for the quality of life of citizens.

The principal scope of the project was to develop an exhibition on Responsible Research and Innovation, focusing on ocean research as a specific scientific theme.

The objectives of the project were the following:

- To **develop an interactive exhibition on RRI related to the oceans**, targeted to the audience of the science centre. The RRI concepts are abstract for most citizens, and finding stimulating ways to engage citizens in an exhibition on this topic is one of the challenges of the PIER project;
- To develop **an exhibition design process using participatory methodologies and RRI concepts**. One of the main objectives of the project is to mobilise and engage citizens as well as other societal actors including researchers, businesses, the media, civil society organisations and policy-makers to develop the exhibition and address content issues;
- To **disseminate the RRI concept**, via the ocean research topic, to scientists (current and students), policy makers and other stakeholders concerned by the topic;
- To **develop educational materials and tools** in general to facilitate dialogue and debate on the concepts of RRI, and to **evaluate the effectiveness** of the exhibition and of the public programmes.

### **SiS dimension objectives**

One of the purposes of the SiS Civil Society and Citizen Participation dimension lay in creating a more bilateral exchange between science and society so as to reconcile the growing expectations in the science world on the one hand, and the increasing scepticism of society towards scientific advances on the other. Through the organisation of an exhibition on RRI relying on a participatory process with civil society, the objectives of the PIER project were fully consistent with those of the SiS dimension it belonged to.

### **Innovation Union objectives**

Strengthening the knowledge base of society is one of the Innovation Union objectives. In that respect, the objectives of the PIER project were consistent with those of the Innovation Union.

### **European Research Area (ERA) objectives**

The PIER project was in line with the ERA objectives through the promotion of optimal circulation, access to and transfer of scientific knowledge to guarantee access to and uptake of knowledge by all. By aiming to make responsible research and innovation more appealing to civil society, PIER's objectives were also indirectly contributing to developing more effective national research systems by aligning them with civil society's interests and potentially attracting new researchers.

### **SaS Action Plan**

The project aimed at developing an interactive exhibition on RRI related to the oceans. Representatives of civil society were involved in the definition of the exhibitions' content. However relying on the collected documents, it does not seem that the project was directly in line with any specific actions of the SaS Action Plan though it can be considered that it contributed to Action 20 in relation to the organisation of dialogues on SaS thought the organisation of an exhibition.

## **PROJECT RESULTS AND OUTCOMES**

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### **Main achievements according to Project objectives**

The project lasted 13 months, from January 2014 to January 2015 and the work plan was divided into 6 work packages: Management and Coordination (WP1), Conception and Design (WP2), Exhibition Development (WP3), Production and Construction of Exhibits (WP4), Activation of Public Programs and Evaluation (WP5), Communication and Promotion (WP6).

The project achieved the following outputs:

- **A survey on the European funded research in the field of marine and ocean issues:** summaries and information regarding the projects funded under the 7th framework program were collected. A first list of projects was chosen according to the following criteria: relevance with the RRI issues, being carried out in the Mediterranean basin, being attractive to visitors and ability to easily display through hands on exhibits;
- **An analysis of the different projects and definition of the exhibition content** involving representatives of **civil society**. In particular, the milestones of the participatory process for the conception and the design of the exhibition were represented by the European Expert Workshop with experts in RRI, the 3 Focus Groups, the intermediate Scientific Advisory Board Meeting and the Workshop with school teachers of science subjects and facilitators;
- **The exhibition "Sea Horizon"**, with its scientific contents, divided into six topics: Responsible Fishery and Aquaculture, the prevention and mitigation of natural and manmade catastrophes, renewable energies coming from the sea, habitats and biodiversity, new materials and products obtained from the recycling of marine resources, the new technologies in the field of maritime transport.
- The active participation of some prestigious research centres, which notably provided prototypes and lab equipment, was a remarkable result of the project. Similarly, the active participation of a few young researchers providing science demonstrations in the exhibition was considered an efficient way to improve the communication between the science world and society. This aspect was appreciated especially by school teachers, who believed that it contributed to making research appear more appealing to their students.
- Successfully encouraging visitors to express their opinion on the six aspects of the RRI and the topics tackled in marine research was also put forward as an achievement of the participatory process. A **mobile app**, as well as an **interview** on the 6 topics of the exhibition to make people reflect on marine research and RRI related issues, encouraged visitors to develop their own opinion by confronting theirs with those of seven archetypes.
- Guidelines for the exhibition development.

On the basis of the collected documents, it can be assessed that all specific objectives of the project were realized. However due to the lack of availability of the Final Report, it is not possible to assess whether all planned activities were achieved.

### **Main achievements according to SiS Dimensions**

The project enabled the organisation of an exhibition on RRI, where participatory processes were deemed successful in including and taking into account civil society. In fact, the European Expert workshop aimed to discuss the initial synopsis of the exhibition and to collect suggestions for the themes and contents. Participants were asked to group brainstorm and propose ideas and solutions on the future exhibition. For this reason, the project ensured the transition from a one-directional approach towards a more inclusive involvement of civil society representatives.

## **DISSEMINATION AND ENGAGEMENT ACTIVITIES AIMED AT TRANSFERRING THE PROJECT RESULTS TO WIDER COMMUNITIES**

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The adopted communication plan was based on a multi-purpose strategy using different dissemination channels:

- A mobile application;
- Websites;
- Social networks;
- Mailing lists;
- City advertising;
- Printed material;
- Press releases were diffused to journalists about the exhibition scientific contents and the program of related events: newspapers and magazines, web magazines, TV and radio;
- Two typologies of questionnaires were submitted to visitors in order to investigate their opinions about scientific research in general and about the effectiveness of the exhibition. The results of the data analysis translated into recommendations that will be available for policy makers and scientists.

It seems that the project ensured dissemination at the EU and local level, as planned in the Description of Work. However, due to the lack of the Final Report, it is difficult to assess if all planned dissemination activities were implemented. For example, the project was supposed to ensure the participation to European conferences in the field of science and society. However, the collected documents do not provide any information about it.

## **PROJECT IMPACTS**

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### **Potential impact**

The PIER project had the following expected impact:

- To raise awareness of RRI and Horizon 2020;
- To raise awareness on the extent to which science and innovation can promote economic, social and cultural development of territories and increase the quality of life of citizens;
- To highlight the central role of public engagement in their communities;
- To mobilise and engage citizens, children, teenagers, students, as well as other local stakeholders, researchers, businesses, media, civil society organisation and policy-makers.

The project's potential impact can be further assessed through the following indicators:

- **Betweenness centrality:** the project only had one participating institution, which was not among the most central institutions participating in FP7.
- **Scientific attractiveness:** The only participant was not ranked in the Leiden University ranking.
- **Business attractiveness:** The participant was not ranked as one of the biggest R&D investors among SiS participants.

### **Actual impact**

Actual impact of the PIER project can be clustered into the four following categories:

- **Scientific impact:** no publications were listed in the PIET project documentation. However, the attractiveness of the exhibition, as measured by the high number of people who came to see it (over 30,600 in two months, with 44% of school students and 56% of "general public"), speaks in favour of a significant scientific impact.
- **Social Media impacts:** only two posts could be found referring to the PIER project, therefore suggesting a non-existent impact through social media.
- **Institutional and organisational impact:** the engagement of stakeholders in the exhibition enabled to consolidate and create future scientific collaborations with experts and other actors involved in the participant's scientific activities. Moreover, the success of the exhibition was considered to have raised awareness of the importance of resorting to science museums for dissemination of research activities and results. The project notably stimulated future cooperation between Città della Scienza and scientists, as some of the involved institutes showed interest in implementing joint research and education activities.
- **Policy impact:** no specific policy impact could be identified.

## PATH-BREAKING ADVANCEMENTS

None.

## BEST PRACTICES

None.

## EU ADDED VALUE OF THE PROJECT

Conducting the project through an EU Framework Programme enabled the organisation of larger-scale policy dialogues and the inclusion of relevant stakeholders from EU Member States: the European Expert Workshop was considered the milestone of the participatory process for the conception and the design of the exhibition.

It moreover gave more visibility to the initiative. Furthermore, the PIER Project drew attention to related European projects.

## PARTICIPANTS AND RESEARCH TEAM

### Participants

Number of participants: 1

Number of countries involved: 1

	Type	Country	Role	Previous participations in FP
Fondazione IDIS-Città della Scienza	OTH	IT	Coordinator	7

### Team Composition

Team Size: 5 members

GENDER				
Female		Male		Unknown
2 (40%)		3 (60%)		0
SENIORITY				
Average		Junior		Senior
		1 (20%)		4 (80%)
PhD				
No		Yes		
4 (80%)		1 (20%)		
BACKGROUND				
Applied Sciences	Health Sciences	Humanities & Social Sciences	Natural Sciences	Unknown
1 (20%)	0	4 (80%)	0	0

\*The data are based on the analysis of the provided project's Description of Work.

## DELIVERABLES AND PUBLICATIONS

### Project deliverables

DELIVERABLE NO.	DELIVERABLE NAME	DUE DATE OF DELIVERY (month)	ACTUAL SUBMISSION DATE: (month)
D1.1	Composition of the SAB	1	2
D1.2	Outcomes of the kick-off meeting	1	2
D1.3	Outcomes of the intermediate SAB meeting	4	6
D2.1	Comprehensive list of the last innovative research connected to ocean	1	2
D2.2	Outcomes and recommendations from the European workshop with experts in RRI	2	2
D2.3	Results from the three local focus groups	3	6

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<i>DELIVERABLE NO.</i>	<i>DELIVERABLE NAME</i>	<i>DUE DATE OF DELIVERY (month)</i>	<i>ACTUAL SUBMISSION DATE: (month)</i>
<i>D2.4</i>	<i>Guidelines for the exhibition development</i>	<i>3</i>	<i>6</i>
<i>D3.1</i>	<i>Preliminary exhibition program</i>	<i>4</i>	<i>8</i>
<i>D3.2</i>	<i>Final exhibition program and sections</i>	<i>5</i>	<i>11</i>
<i>D4.1</i>	<i>Report of functional testing</i>	<i>10</i>	<i>11</i>
<i>D4.2</i>	<i>Photographic documentation of the exhibition</i>	<i>11</i>	<i>12</i>
<i>D4.3</i>	<i>Graphic, multimedia and video files</i>	<i>11</i>	<i>11</i>
<i>D5.1</i>	<i>Report of the workshop with teachers and facilitators</i>	<i>7</i>	<i>12</i>
<i>D5.2</i>	<i>List of activities and screenplays</i>	<i>11</i>	<i>-</i>
<i>D5.3</i>	<i>Questionnaires</i>	<i>11</i>	<i>13</i>
<i>D5.4</i>	<i>Recommendations and case study</i>	<i>13</i>	<i>14</i>
<i>D6.1</i>	<i>Program of the opening event</i>	<i>11</i>	<i>-</i>
<i>D6.2</i>	<i>Press release</i>	<i>11</i>	<i>13</i>
<i>D6.3</i>	<i>Exhibition web site</i>	<i>11</i>	<i>15</i>
<i>D6.4</i>	<i>Advertising posters</i>	<i>11</i>	<i>13</i>

#### **Related publications**

No publications were mentioned in the PIER documentation.

#### **MAIN SOURCES**

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PIER Description of Work  
 PIER Final Report Summary  
 PIER Periodic Report Summary  
 PIER Final Report Executive Summary  
 PIER Project Website: <http://www.pier-project.eu/>

## **SEA FOR SOCIETY - "SFS"**

**Framework Programme: FP7**

**Action line/Part: 5.1 A more dynamic governance of the science and society relationship**

**Activity: -**

**Area: -**

**Dimension: Civil Society and Citizen Participation**

**Tool: Coordination and support action**

**Project Call For Proposal: FP7-SCIENCE-IN-SOCIETY-2011-1**

**Status: Closed**

**Total cost: € 4.893.284**

**Total EU funding: € 4.259.077**

**Website: [www.seafor society.eu](http://www.seafor society.eu)**

**Period: 01/06/2012 - 30/11/2015**

**Subjects: Social Aspects**

**Project ID and Acronym: 289066 - SFS**

### **BACKGROUND AND CONTEXT OF THE PROJECT AND STRATEGIC NEEDS**

The Ostend Declaration, adopted in 2010 by the European marine and maritime research community, outlined that 'the Seas and Oceans are one of the Grand Challenges for the 21<sup>st</sup> Century'. The Declaration acknowledged: the critical role of the oceans in the earth and climate systems; the importance of coasts, seas and oceans and their ecosystems to our health and well-being; the increasing impacts of global environmental change on the marine environment and the significant socio-economic consequences of those impacts; the ongoing need for basic research to address major gaps in the knowledge of coasts, seas and oceans and the opportunities for innovation, sustained wealth and job creation in new maritime sectors. In order to address the challenges and opportunities, a need was identified to engage all sectors of society.

### **SPECIFIC PROJECT OBJECTIVES**

The Sea For Society (SFS) project aimed to involve and raise awareness among researchers, policy makers, economic actors and civil society through dialogue, mutual learning and joint action in a new way of understanding the sea and the ocean, developing a new vision for the sustainable use of oceans called the Blue Society, combining together the will and need for progress while respecting the sustainability of resources.

The project had six primary objectives:

- **Objective 1:** To bring together different stakeholders (such as economic stakeholders, environmental organisations, local authorities, the public-at-large, and youth) with complementary knowledge and experiences to forge new partnerships, using a participatory approach, resulting in Public Engagement in Research.
- **Objective 2:** To set up a Consultation Process across Europe to facilitate dialogue and cooperation among different stakeholders, to identify challenges and barriers of coastal and marine ecosystem services in relation to societal needs, receive contributions from citizens and youth and propose challenge-driven solutions.
- **Objective 3:** To share the co-authored knowledge arising from the Consultation Process in a broad and effective manner in order to empower stakeholders, citizens and youth to take action to tackle the societal challenges identified.
- **Objective 4:** To provide advice to inform and support research policy in order to optimise the role of research and technology in tackling marine resources, inland activities and sustainable development.
- **Objective 5:** To develop and enrich the concept of Blue Society as a basis for improved governance of the Oceans.
- **Objective 6:** To develop ongoing mechanisms such as partnership, interaction, public-research engagement to ensure the sustainability of the Sea For Society process, ultimately resulting in empowerment actions to address marine societal challenges.

### **SaS SiS Programme objectives/Activity lines:**

The objective of SFS was to involve and raise awareness on the sustainable use of oceans. The objectives of SFS were thus consistent with the SaS objective of supporting Mobilisation and Mutual Learning Actions.

The project aimed at setting up a consultation process across Europe to facilitate dialogue and cooperation among different stakeholders. It also aimed at developing partnerships and networks to increase mutual learning. Therefore, the project aimed at "*addressing the relationship between science and society through the organisation of networks to*

*structure research and debates capable of revealing the real participation of science in building a European society and identity", consistent with the Activity Line Objectives.*

#### **Innovation Union Objectives:**

Increasing social benefits is an objective of the Innovation Union. In that respect, SFS's purpose was consistent with the Innovation Union objectives as it aimed to involve and raise awareness on the sustainable use of oceans.

#### **European Research Area Objectives:**

Optimal circulation, access to and transfer of scientific knowledge is an objective of ERA. In that respect, SFS's purpose was consistent with the Innovation Union objectives as it aimed to involve and raise awareness on the sustainable use of oceans.

#### **SaS Action Plan**

One of the project objectives was to bring together different stakeholders (such as economic stakeholders, environmental organisations, local authorities, the public-at-large, and youth) with complementary knowledge and experiences to forge new partnerships, using a participatory approach. Another objective consisted of setting up a Consultation Process across Europe to facilitate dialogue and cooperation among different stakeholders.

The involvement of a participatory approach and the instauration of a dialogue between different stakeholders show that the project was in line with Action 20 of the SaS Action Plan relating to the organisation of local and regional dialogues on SaS and Action 23 relating to the inauguration of public discussions and hearings on specific themes.

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### **PROJECT RESULTS AND OUTCOMES**

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#### **Main achievements according to Project objectives**

The Final Report was not available for the evaluation, therefore opinions were based on the mid-term evaluation report and other deliverables available at this time:

- Concerning **objective 1**, a marine stakeholder literature review enabled the identification of key marine stakeholder issues. The idea of an integrated European stakeholder strategy was discussed, however it proved difficult to implement due to the large number of national and local legislations.
- Concerning **objective 2**, consultation methodology and tools were developed to ensure data quality between geographical areas. A training course was organised for local area members to observe how workshops with local stakeholders should be implemented. A document summarising all the information, such as the methodology to follow step by step, was provided. Two types of workshops were organised: Multi-stakeholder Consultation and Citizen and Youth Consultation. Overall, workshops were reported as having met the expectations of the interviewed participants and workshop organisers, and most of the participants expressed great interest in keeping contact with the project, requesting to be informed about results and further developments.
- Concerning **objective 3**, all workshops generated co-authored reports reflecting the challenges, barriers and solutions identified during the events. Consultation results from a governance and marine science perspective was performed in Deliverable 2.5. Results were expected to be further analysed in the final evaluation report, which was not available at the time of writing this Case Study.
- Concerning **objective 4**, based on the stakeholder and citizen Consultation Phase's results, a Vision of the Blue Society challenge and A European Action Plan were set up, messages to disseminate to target groups were defined and a lobbying campaign and collective action were planned. More information was expected to be provided in the Final report, which was not available at the time of writing this Case Study.
- Concerning **objective 5**, activities undertaken during the consultation and mobilisation phases of the SFS programme fed into the development of a new and ambitious vision for society – the "Blue Society". Key principles of the Blue Society were identified by the Expert Group, drawing on the results of the consultation process. More information was expected to be provided in the Final report, which was not available at the time of writing this Case Study.
- Concerning **objective 6**, information was expected to be provided in the final evaluation report, which was not available at the time of writing this Case Study.

#### **Main achievements according to Programme objectives**

As stated in the project objectives section and confirmed by a review of project deliverables, the SFS project results were in line with the SaS objective of supporting Mobilisation and Mutual Learning Actions. This had, as an impact, increased cooperation between actors from different disciplines, as identified as an expected impact of the programme.

#### **Main achievements according to SiS Dimensions**

The SFS project was in line with the Civil Society and Citizen Participation SiS dimension as it contributed to the creation of the conditions for an informed debate between science, politics and society.

With regard to Objective 2, the project organised two types of workshops (Multi-stakeholder Consultation and Citizen and Youth Consultation) which ensured a multi-level dialogue. The project indeed produced a more inclusive involvement of civil society representatives, going beyond the one-directional approach focused on the dissemination of project results.

### **DISSEMINATION AND ENGAGEMENT ACTIVITIES AIMED AT TRANSFERRING THE PROJECT RESULTS TO WIDER COMMUNITIES**

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A Sea For Society website was launched, which aimed to promote the project, its objectives and partnership, to update interested parties on progress, results and outcomes, to be a repository for deliverables and communication materials and to be a venue for debate and dialogue during and beyond the project on Blue Society issues and initiatives.

Alongside the project website, nine national blogs were created to address more efficiently the different audiences of each partner in its native country. A Project Presentation Video was also created to present the project, its partners, its objectives and a first definition of the Blue Society concept.

A training course was organised in 2013 at the National University of Ireland, for local area members to observe how workshops with local stakeholders should be implemented. Consultation workshops were organised in Sweden, Spain, Portugal, Poland, Norway, Italy, Ireland, Greece and France.

Finally, special materials were created for the consultation phase of the Sea For Society and were further used to disseminate and promote the project and the Blue Society concept among its different audiences.

It was not possible to state whether the project completed all planned dissemination activities due to the unavailability of the Final Report.

### **PROJECT IMPACTS**

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Potential impact of the project:

- **Institutional and organisational impact:** SFS was expected to increase awareness of the importance of Public Engagement in Research, further empowering stakeholders and citizens to take action at local, national and European level to tackle marine societal challenges.
- **Policy impact:** SFS was expected to foster an integrated vision towards the sustainable use of marine ecosystems services and the balanced use of marine resources.
- **Betweenness centrality:** Four participants out of twenty were included in the top 1% in terms of centrality of the "Cooperation" network in FP7.
- **Scientific attractiveness:** Universities participating in the project were the UNIVERSITY OF GOTHENBURG (359<sup>th</sup>) and the NATIONAL UNIVERSITY OF IRELAND (553<sup>rd</sup>).
- **Business attractiveness:** No highly ranked R&D investors participated in the project.

**Actual impacts** resulting from the project documents can be clustered into four types:

- **Scientific impact:** No scientific publication was found.
- **Social Media impact:** 584 posts were posted during the project (18 posts after the project). Most activity occurred on Twitter (68%), mainly in Ireland, Spain and France, using the hashtag #bluesociety (60+). Other media were blogs (15%) and the news (11%).
- **Institutional and organisational impact:** Actual impacts were to be further developed in the Final report which was not available at the time of writing the Case Study.
- **Policy impact:** Actual impacts were to be further developed in the Final report.

### **PATH-BREAKING ADVANCEMENTS**

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None.

### **BEST PRACTICES**

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None.

### **EU ADDED VALUE OF THE PROJECT**

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Since the aim of the project was to involve and raise awareness on the sustainable use of oceans at the European scale, the funding of the project at EU level was considered to be the most pertinent.



By working at a European scale, the project was able to share available knowledge, to create a long-lasting network between research teams, to cover more research topics during the project and to avoid duplication of efforts and finally to benefit from a wider perspective for the production of guidelines and recommendations as well as ensuring a more efficient dissemination of results through participants' respective networks.

## **PARTICIPANTS AND RESEARCH TEAM**

### **Participants**

Number of participants: 20

Number of countries involved: 10

	Type	Country	Role	Previous participations in FP
SOCIETE D'EXPLOITATION DU CENTRE NATIONAL DE LA MER	PRC	FR	Coordinator	2
INSTITUTO SUPERIOR TECNICO	HES	PT	Participant	113
GOETEBORGS UNIVERSITET	HES	SE	Participant	179
NATIONAL UNIVERSITY OF IRELAND, GALWAY	HES	IE	Participant	129
INSTITUT FRANCAIS DE RECHERCHE POUR L'EXPLOITATION DE LA MER	REC	FR	Participant	81
HELLENIC CENTRE FOR MARINE RESEARCH	REC	GR	Participant	79
HAVFORSKNINGSINSTITUTTET	REC	NO	Participant	42
MARINE INSTITUTE	REC	IE	Participant	28
INSTYTUT OCEANOLOGII POLSKIEJ AKADEMII NAUK	REC	PL	Participant	12
INSTITUTO ESPANOL DE OCEANOGRAFIA	REC	ES	Participant	33
European Business and Innovation Centre Network	OTH	BE	Participant	22
FUNDAÇÃO EUROCEAN	OTH	PT	Participant	7
CIENCIA VIVA-AGENCIA NACIONAL PARA A CULTURA CIENTIFICA E TECNOLÓGICA	OTH	PT	Participant	10
ASSOCIATION EUROPEENNE DES EXPOSITIONS SCIENTIFIQUES, TECHNIQUES ET INDUSTRIELLES	OTH	BE	Participant	15
COSTA EDUTAINMENT S.P.A	PRC	IT	Participant	3
Ayuntamiento de A Coruña	PUB	ES	Participant	3
AquaTT UETP Ltd	OTH	IE	Participant	16
UICN, BUREAU DE REPRESENTATION AUPRES DE L'UNION EUROPEENNE AISBL	OTH	BE	Participant	1
RESEAU OCEAN MONDIAL AISBL	OTH	BE	Participant	1
STUDIO K SARL	PRC	FR	Participant	1

## **DELIVERABLES AND PUBLICATIONS**

### **Deliverables**

No information available on the actual dates of delivery in the reports available for this project.

DELIVERABLE NO.	DELIVERABLE NAME	DUE DATE OF DELIVERY (month)	ACTUAL SUBMISSION DATE: (month)
D.1.1	Report on state of the Art of marine science research	4	
D.1.2	Report on identification and mapping of types of stakeholders to engage	6	
D.1.3	Report on perceptions and expectations on key issues for stakeholders and citizens/youth	6	
D.1.4	Background material and guidelines for Consultation Process	6	
D.1.5	Training Workshops on the Consultation Process methodology	6	
D.2.1	Consultation Process plan and adapted materials	9	
D.2.2	Individual reports of each Consultation Process for stakeholders and citizens/youth	19	
D.2.3	Six "Issue reports" analysing the results of the Consultation Process by issue	21	
D.2.4	Global analysis of the Consultation Process from a social	21	

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DELIVERABLE NO.	DELIVERABLE NAME	DUE DATE OF DELIVERY (month)	ACTUAL SUBMISSION DATE: (month)
	<i>sciences perspective</i>		
D.2.5	<i>Global analysis of the Consultation Process from a marine sciences perspective</i>	21	
D.3.1	<i>European Action Plan for Mobilisation, identifying the cross cutting challenge, advocacy activities</i>	24	
D.3.2	<i>Resources, tools and identified existing activities for the Mobilisation phase</i>	28	
D.3.3	<i>"Sea Academy" training programme</i>	25	
D.4.1	<i>National and local Action Plans for Mobilisation</i>	28	
D.4.2	<i>Report on Mobilisation activities at area &amp; EU level</i>	39	
D.4.3	<i>Analysis of mobilisation activities from a social sciences perspective</i>	39	
D.4.4	<i>Analysis of Mobilisation activities from a marine sciences perspective</i>	39	
D.5.1	<i>Terms of reference for the Blue Society expert group</i>	2	
D.5.2	<i>State of the art of the Blue Society concept</i>	12	
D.5.3	<i>Feedback Report on the results of the Consultation Process</i>	22	
D.5.4	<i>Feedback report on the results of the mobilisation phase</i>	39	
D.5.5	<i>Definition of the Blue Society</i>	36	
D.6.1	<i>Communication plan and project branding</i>	6	
D.6.2	<i>Project Promotional Materials</i>	6	
D.6.3	<i>Launch of the Web Portal</i>	9	
D.6.4	<i>Annual Communication Report 1</i>	12	
D.6.5	<i>Annual Communication Report 2</i>	24	
D.6.6	<i>Annual Communication Report 3</i>	36	
D.6.7	<i>Blue Society launch event report</i>	40	
D.7.1	<i>Quality plan</i>	3	
D.7.2	<i>Terms of reference document for the evaluation</i>	3	
D.7.3	<i>Mid-term evaluation report</i>	21	
D.7.4	<i>Internal Monitoring Process report</i>	42	
D.7.5	<i>Final evaluation report</i>	42	

### MAIN SOURCES

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SFS Description of Work  
SFS Mid-term evaluation

## Civil Society and Citizen Participation: FP6 Related to SaS

## **AGRICULTURE FOR SUSTAINABLE DEVELOPMENT: A DIALOGUE ON SOCIETAL DEMAND, PRESSURES AND OPTIONS FOR POLICY - "SASSPO"**

**Framework Programme: FP6 related to SAS**  
**Action line/Part: -**  
**Activity: -**  
**Area: -**  
**Dimension: Civil Society and Citizen Participation**  
**Tool: Specific Support Action**  
**Project Call For Proposal: FP6-2004-SSP-4**  
**Status: Closed**  
**Total cost: € 152 010.00**  
**Total EU funding: € 130 000.00**  
**Website: <http://www.mtt.fi/sasspo/>**  
**Period: 01/01/2006 - 31/12/2006**  
**Subjects: -**  
**Project ID and Acronym: ID: 22698, ACRONYM: SASSPO**

### **BACKGROUND AND CONTEXT OF THE PROJECT AND STRATEGIC NEEDS**

From its creation with the Treaty of Rome in 1957 to its most recent reforms in 2003, the prerogatives and objectives of the Common Agricultural Policy (CAP) have evolved significantly. While it initially focused exclusively on agricultural productivity, farmers' standards of living, stable markets, food security and consumer prices, it has gradually integrated new considerations on the environment, rural issues and territorial cohesion. Most recently, the focus has been put on ensuring the transition towards a more market-oriented agricultural sector, with the objective of striking the right balance between people, the planet and profit.

Improving the CAP in a market perspective without compromising social, cultural and environmental balance appears to be a challenge. In that context, the policy-making process needs to rely on a strong knowledge basis taking all relevant aspects into account. SASSPO intervenes in that framework and aims at strengthening co-operation between actors in the fields of agricultural, rural development, and agri-environmental policy, by bridging the gap between scientists, policy-makers, producers and other relevant stakeholders.

### **SPECIFIC PROJECT OBJECTIVES**

The SASSPO Project aimed to **promote a more integrated and sustainable approach to agriculture and rural development in Europe** by pulling together existing research results and fostering democratic deliberation.

The objectives of the SASSPO project were to:

- Understand the critical linkages between market reform, the rural development policies and agri-environmental schemes
- Bring together policy makers, stakeholders and scientists of these policy areas to reach a common understanding on the policy issues
- Establish a co-operation pattern between authorities responsible for agricultural policies, rural development and agri-environmental issues
- Exchange experiences between old and new member states
- Identify a new research agenda based on options for policy reform

To achieve these objectives the project aimed to undertake the following activities:

- Produce four background notes from an economic, environmental and social perspective, based on existing research in order to serve as a starting point for further policy discussions
- Organise a policy dialogue, including a dialogue with stakeholders, focusing on multifunctional agriculture from an economic, environmental and social perspective
- Produce policy briefs on the main issues identified, with policy recommendations on the linkage between CAP reform, rural development policies and agri-environmental policies

### **SaS dimension objectives**

By aiming to bring together policy makers, stakeholders and scientists from relevant areas, the SASSPO project's objectives were consistent with the Civil Society and Citizen Participation dimension that consisted in creating the conditions for an informed debate between science, politics and society.

### **Innovation Union objectives**

The SASSPO project aimed at promoting a more integrated and sustainable approach to agriculture and rural development in Europe by pulling together existing research results and fostering democratic deliberation and was therefore in line with the first intermediate objective of the Innovation Union namely “*strengthening the knowledge base and reducing fragmentation*”.

#### **European Research Area (ERA) objectives**

The conduct of the SASSPO project was about pulling together existing research results on agriculture and rural development in Europe in order to promote a more integrated and sustainable approach. The project contributed therefore to an “*optimal circulation, access to and transfer of scientific knowledge including via digital ERA*” (fifth ERA priority).

#### **SaS Action Plan**

The project was in line with Action 23 of the SaS Action Plan as it contributed to the development of public discussions on specific themes related to agriculture and rural development in Europe, through the organisation of two policy dialogue seminars.

### **PROJECT RESULTS AND OUTCOMES**

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#### **Main achievements according to Project Objectives**

The project achieved the following outputs:

- Four **background notes** were prepared based on existing literature.
- Two **policy dialogue seminars** were organised (7-8 September 2006 in Helsinki, and 12-13 October 2006 in the Hague), bringing together scientists, policy makers, politicians, producers, consumers and other relevant stakeholders to exchange on the achievements as well as future needs relating to scientific support to agricultural policies in Europe. The two seminars gathered, in total, 51 participants, from 18 EU countries, the European Commission, the OECD, Friends of the Earth, the National Federation of Agricultural Holders’ Unions (FNSEA) and European Landowners’ Organisation (ELO).
- Four **policy briefs** were drafted based on the findings from the four background notes and policy dialogue seminars. Overall, 15 CAP-related policy issues were identified and recommendations for each of them were made. Policy briefs referred to:
  - Main trends in agriculture
  - Driving forces of European Agriculture
  - Implementation of policies for sustainable development in the context of CAP. New challenges for research
  - Contribution of the CAP to the general objectives of the EU
- A **website on the project** was created.

According to the Project Report, all planned activities were carried out.

#### **Main achievements according to SaS Dimensions**

The SASSPO project was relevant for the Civil Society and Citizen Participation dimension as it emphasised the need to include all relevant stakeholders in the design of the CAP’s market approach to ensure that a stronger market perspective would not jeopardise social, cultural and environmental aspects. The organisation of two policy dialogue seminars to exchange on the achievements and future needs relating to scientific support to agricultural policies in Europe contributed to the development of a greater involvement of civil society representatives. Accordingly, scientists, policy makers, politicians, producers, consumers and other relevant stakeholders were invited to participate. The project therefore assisted in moving from a one directional approach to a more inclusive approach for stakeholders.

### **DISSEMINATION AND ENGAGEMENT ACTIVITIES AIMED AT TRANSFERRING THE PROJECT RESULTS TO WIDER COMMUNITIES**

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As a policy-oriented project, the main end-users of SASSPO were policy-makers, scientific researchers in policy areas, NGO representatives and companies. In that respect, the Policy Dialogues, background notes and Policy Briefs which gathered all types of relevant stakeholders were in themselves dissemination activities.

Moreover, a website on the project was created, and newsletters in seven languages as well as a press release were drafted and sent to various institutions. Articles to EuroChoices and scientific journals were also planned to be published.

According to the Project Report, all planned dissemination activities were carried out.

## PROJECT IMPACTS

### Potential impacts

Through the identification of clear policy issues and by gathering all relevant stakeholders, the project aimed to ease the transition of the CAP towards a more market-oriented approach without compromising its initial focus.

The project's potential impact can be further assessed through the following indicators:

- **Betweenness centrality:** None SASSPO project participant one was amongst the most central FP6 participants.
- **Scientific attractiveness:** None SASSPO project participant was ranked in the Leiden University ranking.
- **Business attractiveness:** The SASSPO project had no participant ranked amongst the biggest R&D investors to have participated in SaS.

### Actual impacts

Beyond expectations, the actual impacts can be classified into the following sections:

- **Scientific impact:** due to the purpose of the project, no scientific impact was identified.
- **Institutional and organisational impact:** by resorting to a policy dialogue format, cooperation between different types of stakeholders was strengthened and cross-cutting perspectives on complex issues were enabled.
- **Policy impact:** the policy briefs and identification of policy issues contributed to framing the transition of the CAP. From policy dialogues resulted the stakeholders' need for an external arena where they would be able to discuss and exchange information, taking a future-oriented perspective so as to consider the CAP's need for long-term policy agenda.
- **Social media impact:** no posts referring to the project could be found on social media, suggesting a non-existent impact of the project through this channel.

## PATH-BREAKING ADVANCEMENTS

None.

## BEST PRACTICES

None.

## EU ADDED VALUE OF THE PROJECT

Conducting the project through an EU Framework Programme enabled the organisation of larger-scale policy dialogues and the inclusion of relevant stakeholders from EU Member States, EU institutions and international organisations. It moreover gave more visibility to the initiative. EU funds enabled small Member States (Finland and the Netherlands) to cooperate together.

## PARTICIPANTS AND RESEARCH TEAM

### Participants

Number of participants: 2

Number of countries involved: 2

	Type	Country	Role	Previous participations to FP
MTT Agrifood Research	REC	Finland	Coordinator	1
Agricultural Economics Research Institute	REC	The Netherlands	Participant	13

### Team Composition

Team Size: 6 members

GENDER		
Female	Male	Unknown
50%	50%	0
SENIORITY		

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Average		Junior		Senior	
0		0		100%	
PhD					
No			Yes		
0			100%		
BACKGROUND					
Applied Sciences	Health Sciences	Humanities & Social Sciences		Natural Sciences	Unknown
16,5%	0	67%		16,5%	0

\*The data are based on the analysis of the provided project's Description of Work.

## DELIVERABLES AND PUBLICATIONS

Project deliverables

DELIVERABLE NO.	DELIVERABLE NAME	DUE DATE OF DELIVERY (month)	ACTUAL SUBMISSION DATE: (month)
D1	Kick off meeting with the Advisory Board	1	1
D2	Background note on the wider context of EU policies	4	8
D3	Background note on the driving forces of European agriculture	4	8
D4	Background note on main trends in agriculture and their relation to sustainability	4	8
D5	Background note on the implication for policy and research, and for policy implementation	4	8
D6	Seminar information package	8	9
D7	Policy Dialogue1	9	9
D8	Summary from Policy Dialogue1	10	9
D9	Research team working meeting	9	8
D10	Policy Dialogue2	10	10
D11	Summary from Policy Dialogue2	10	10
D12	Research team Working meeting	10	11
D13	Summary meeting with the Advisory Board	10	11
D14	Policy Brief 1	11	12
D15	Policy Brief 2	11	12
D16	Policy Brief 3	11	12
D17	Policy Brief 4	11	12
D18	Final Dissemination Plan	6	6
D19	Summary of the project results to be put on web	12	12
D20	Manuscript of an article to be submitted to e.g. EuroChoices	12	14
D21	Manuscript of a scientific article	12	-
D22	Project Website	3	5
D23	Final report	12	14

### Related publications

No publications related to the project were mentioned in the SASSPO documentation.

### MAIN SOURCES

SASSPO Description of Work  
SASSPO Final Report  
SASSPO Summary of the Project Results  
SASSPO website: <http://www.mtt.fi/sasspo/>





## **CULTURAL INFLUENCES ON RENEWABLE ENERGY ACCEPTANCE AND TOOLS FOR THE DEVELOPMENT OF COMMUNICATION STRATEGIES TO PROMOTE ACCEPTANCE AMONG KEY ACTOR GROUPS- "CREATE ACCEPTANCE"**

**Framework Programme: FP6 related to SAS**  
**Dimension: Civil Society and Citizen Participation**  
**Tool: Specific Targeted Research Projects**  
**Project Call For Proposal: FP6-2004-ENERGY-3**  
**Status:**  
**Total cost: € 1.975.720,00**  
**Total EU funding: € 1.345.543,00**  
**Website: <http://www.esteem-tool.eu/>**  
**Period: 01/02/2006 – 31/01/2008**  
**Subjects:**  
**Project ID and Acronym: ID: 518351 – CREATE ACCEPTANCE**

### **BACKGROUND AND CONTEXT OF THE PROJECT AND STRATEGIC NEEDS**

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Technologies and installations of renewable energy generation and/or rational use of energy do not always have the acceptance of all stakeholders. Knowledge about social processes that affect this (non) acceptance is limited. There is therefore a need to deepen the knowledge of these processes and improve the acceptance conditions of these technologies through a tool to evaluate and promote social acceptance.

### **SPECIFIC PROJECT OBJECTIVES**

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#### **Project objectives**

The CREATE ACCEPTANCE project was designed to contribute to facilitating the implementation of new and emerging sustainable technologies by assessing optimal conditions for the implementation of these technologies in terms of socio-economic aspects, consumer preferences and citizen needs. The project's objective was to **increase the competitiveness of RES and RUE technologies by developing a tool that can measure, promote and improve social acceptance of these technologies** by means of:

- **Assessing the already developed Socrobust tool platform** for its suitability in general by mapping its potential to contribute to societal embedding of RES and RUE technologies and the identification of the limitations to access the social acceptance of RES and RUE;
- **Determining the key elements of social acceptance of RES and RUE technologies** by assessing the regionally historical and recent social acceptance of renewable energy technologies such as hydrogen, biomass, CO<sub>2</sub> capture and sequestration, solar thermodynamics, and wind;
- **Enhancing the Socrobust tool platform into a multi-stakeholder tool** for assessing and promoting social acceptance by integrating knowledge gained in objectives (i.), and (ii.), and by designing the necessary instruments and procedures to create a region and target-group specific strategy to address the social acceptance of the deployed technology;
- **Validating and deploying the multi-stakeholder tool** in five selected demonstration projects, covering a wide range of RES and RUE technologies as well as various regions in Europe. The preliminarily selected demonstration projects are ECTOS in the Nordic countries, a biomass project in East-European region, CCS in West-Europe region and the solar thermodynamics project Archimede in the Mediterranean region; dissemination of the multi-stakeholder tool to key stakeholders involved in implementation of new RES and RUE technologies.

The result of the CREATE ACCEPTANCE project was supposed to be a publicly available tool that can measure, promote and improve social acceptance of new sustainable technologies.

#### **SaS dimension objectives**

The CREATE ACCEPTANCE project was designed to develop a methodology and a set of tools that would facilitate societal acceptance of renewable energy projects and projects on the rational use of energy practices. In that respect, the project's objective was consistent with the SaS Civil Society and Citizen Participation dimension that consisted in creating the conditions for an informed debate between science, politics and society.

#### **Innovation Union objectives**

By aiming to develop a tool that can measure, promote and improve social acceptance of RES and RUE technologies, the CREATE ACCEPTANCE project was in line with the first intermediate objective of the Innovation Union namely *"strengthening the knowledge base and reducing fragmentation"*.

### European Research Area (ERA) objectives

The CREATE ACCEPTANCE project was about facilitating social acceptance of sustainable energy sources through the development of a toolbox. The toolbox was expected to help find out how well a project fits into its social context. The project therefore contributed to an “*optimal circulation, access to and transfer of scientific knowledge including via digital ERA*” (fifth ERA priority).

### SaS Action Plan

It is difficult to assess whether the project was consistent with the SaS Action Plan as the DoW and the final report were not available.

## PROJECT RESULTS AND OUTCOMES

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The CREATE ACCEPTANCE project led to the following results:

- **Development of the ESTEEM tool** (Engage stakeholders through a systematic toolbox to manage new energy projects) that is a toolbox for sustainable energy projects. It was developed to help projects implementing innovative new energy technologies to deal with societal acceptance issues;
- **Test and application of the ESTEEM tool to five case studies;**
- **Drafting of publications** in scientific popular press and daily/weekly press as well as specialised magazines.
- It is not possible to assess whether all dissemination activities were implemented as the DoW and the Final Report were not available.

### Main achievements according to SaS Dimensions

The CREATE ACCEPTANCE project aimed to develop a tool for improving and promoting social acceptance of sustainable energy projects. The project organised project partner workshops including members from European institutes from ten different countries and a South African institute and indeed went towards a more inclusive involvement of civil society representatives.

## DISSEMINATION AND ENGAGEMENT ACTIVITIES AIMED AT TRANSFERRING THE PROJECT RESULTS TO WIDER COMMUNITIES

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The CREATE ACCEPTANCE project undertook the following activities to disseminate project results:

- Creation and animation of a **project website**,
- **Drafting of publications** targeting different public (scientific popular press, daily press, specialised magazines);
- **Organisation of media events** such as press releases, conference, workshops, information days;
- **Production of materials** enabled to disseminate information: printed brochures and newsletters.

It is not possible to assess whether all dissemination activities were implemented as the DoW and the Final Report were not available.

## PROJECT IMPACTS

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### Potential impacts

The conduct of the CREATE ACCEPTANCE project was designed to lead to the development of a toolbox for sustainable energy projects helping innovative new energy technologies to deal with social acceptance issues. In this way, the project was supposed to promote the awareness of the importance of social acceptability in shaping patterns of energy provision and use.

The project’s potential impact can be further assessed through the following indicators:

- **Betweenness centrality:** The project had one participating organisation that was amongst the most FP6 central participants;
- **Scientific attractiveness:** The CREATE ACCEPTANCE project had one participating organisation ranked in the Leiden University ranking at the 347<sup>th</sup> place (University of Cape Town);
- **Business attractiveness:** The CREATE ACCEPTANCE project had no participant ranked as one of the biggest R&D investors amongst SaS participants.

### Actual impacts

Beyond expectations, actual impacts can be classified into the following sections:

- **Scientific impact:** The implementation of the CREATE ACCEPTANCE project led to the release of a series of publications in scientific popular press as well as in the daily press. Moreover, the project enabled the elaboration of a tool helping to deal with social acceptance issues in new energy technologies and was therefore designed to support the work of business consultant, academic, or Non-Government Organisations. All this information suggests a positive impact from a scientific point of view;
- **Organisation and institutional impact:** As the tool developed within the CREATE ACCEPTANCE project provided a frame to structure cooperation with the project manager and stakeholders involved in new energy technologies project, it was expected to have an impact on the organisation of similar kinds of projects. However, no data can be found on whether the tool is used which prevents the team therefore from assessing which impact it would have on the organisation;
- **Policy impact:** Through dissemination activities, the CREATE ACCEPTANCE project was supposed to show to public authorities, the role of management of social acceptability can play in contributing to policy objectives of energy conservation and pollution prevention. Accordingly, the project was supposed to promote awareness of social acceptability in shaping patterns of energy provision and use. Nevertheless, no data can be found on the impact that the project had on public bodies;
- **Social media impact:** Between May 2008 and May 2010, only five posts were recorded on the social media. This suggest a poor impact from a social media point of view.

#### PATH-BREAKING ADVANCEMENTS

None.

#### BEST PRACTICES

None.

#### EU ADDED VALUE OF THE PROJECT

Project partners specified in the Description of Work their analysis of the EU added value of the CREATE ACCEPTANCE project. According to them, the added value of carrying out the work at the EU level lay in interrelating previously disconnected European strands of debate relevant to the management of energy networks. As a matter of fact, the project was implemented by 12 participants coming from 11 European different countries.

#### PARTICIPANTS AND RESEARCH TEAM

##### Participants

Number of participants: 12

Number of countries involved: 11

	Type	Country	Role	Previous participations to FP
ENERGIEONDERZOEK CENTRUM NEDERLAND	REC	NL	Coordinator	47
CONSIGLIO NAZIONALE DELLE RICERCA - ISTITUTO DI RICERCA SULL'IMPRESA E LO SVILUPPO	REC	IT	Participant	1
OEKO-INSTITUT E.V. - INSTITUT FUER ANGEWANDTE OEKOLOGIE	REC	DE	Participant	1
UNIVERSITE DE TOULOUSE 1, SCIENCES SOCIALES	HES	FR	Participant	1
ASSOCIACIO ECOINSTITUT D'ECOLOGIA APLICADA	OTH	ES	Participant	1
CONSIGLIO NAZIONALE DELLE RICERCA	REC	IT	Participant	1
KULUTAJATUTKIMUSKEKUS	REC	FI	Participant	1
UNIVERSITY OF CAPE TOWN	HES	ZA	Participant	10
MAGYAR KORNYZETGAZDASAGTANI KOSPONT ALAPITVANY	OTH	HU	Participant	2
EC BREC INSTYTUT ENERGETYKI ODNAWIALNEJ SPOLKA Z OGRANICZONA ODPOWIEDZIALNOSCIA	REC	PL	Participant	2
ISLENSK NYORKA EHF	REC	IS	Participant	3

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	Type	Country	Role	Previous participations to FP
UNIVERSITY OF SALFORD	HES	GB	Participant	12

### Team Composition

Team Size: members\*

GENDER				
Female		Male		Unknown
50%		43%		7%
SENIORITY				
Average		Junior		Senior
7%		36%		57%
PhD				
No			Yes	
71%			29%	
BACKGROUND				
Applied Sciences	Health Sciences	Humanities & Social Sciences	Natural Sciences	Unknown
0%	0%	50%	29%	14%

\*The data are based on the analysis of the provided project's Description of Work.

### DELIVERABLES AND PUBLICATIONS

DELIVERABLE NO.	DELIVERABLE NAME	DUE DATE OF DELIVERY (month)	ACTUAL SUBMISSION DATE: (month)
D1	Manual on the Socrobust tool.	2	2
D2	Report consisting of: Overview of gaps in the Socrobust tool with respect to mechanisms underlying social acceptance. Proposal on how to integrate this missing information in the existing Socrobust tool platform in WP 3	6	6
D3	Report consisting of: the political, socio-economic and energy profiles of the covered regions. Overview of general attitude towards the deployment of hydrogen, biomass and CO <sub>2</sub> CS in the respective regions to be covered. Overview of communication strategies, public dialogue and participation efforts identifying lessons learned from both good and bad practices	10	-
D4	List of operational indicators of success, and process-related and contextual factors expected to influence success. Assessment (meta-analysis) of participation effort success on a variety of dimensions.	11	-
D5	A ready to deploy Multi stakeholder tool	12	-
D6	Overview of selected demonstration projects in covered regions in which we will participate to enhance social acceptance of stakeholders.	13	-
D7	Report on the results of stage 1: attitude of stakeholders, how can they be explained, what is the potential for resolving conflicts and increasing acceptance?	15	-
D8	Report outlining the structure of stage 2: what will happen in the four workshops, how will they be structured?	20	-
D9	Report on the results of the workshop series with an event assessment and recommendations for subsequent actions	23	-
D10	Report evaluating the tool developed in WP 3 and applied	23	-

DELIVERABLE NO.	DELIVERABLE NAME	DUE DATE OF DELIVERY (month)	ACTUAL SUBMISSION DATE: (month)
	<i>in WP 4: How can it be further improved in the light of the experiences made in WP 4.</i>		
D11	<i>Details of the project communication plan Project Communication Action Plan to be implemented Summary of Activities according to the Project Communication Action Plan and their Impact</i>	<i>5 7 23</i>	-
D12	<i>Delivery of contractually foreseen reports and cost statements. Annual report Final report</i>	<i>12 24</i>	-

It is stated in the Periodic Activity Report (February 2007) that publications were released however no references was specified.

## **MAIN SOURCES**

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### **Documentary review:**

The eCORDA;  
CORDIS database;  
OPENAIRE database;  
CREATE ACCEPTANCE CONSORTIUM (2005), Annex 1 - Description of Work  
CREATE ACCEPTANCE CONSORTIUM (2007), Periodic Activity Report  
<http://www.esteem-tool.eu/welcome/>

## **GOVERNANCE, HEALTH AND MEDICINE. OPENING DIALOGUE BETWEEN SOCIAL SCIENTISTS AND USERS - "MEDUSE"**

**Framework Programme: FP6 related to SAS**  
**Action line/Part: Citizens and Governance in a Knowledge-Based Society**  
**Activity: -**  
**Area: -**  
**Dimension: CIVIL SOCIETY AND CITIZEN PARTICIPATION**  
**Tool: Specific Support Actions**  
**Project Call For Proposal: FP6-2004-CITIZENS-6**  
**Status: Closed**  
**Total cost: € 208 384.00**  
**Total EU funding: € 199 540.00**  
**Website: not available anymore**  
**Period: 01/02/2006 - 31/01/2008**  
**Subjects: Policies - Scientific Research - Social Aspects**  
**Project ID and Acronym: ID: 28350, Acronym: MEDUSE**

### **BACKGROUND AND CONTEXT OF THE PROJECT AND STRATEGIC NEEDS**

Over the past decades, the sector of health and medicine has undergone significant changes due to new framings of knowledge production and use, as well as the emergence of new actors like patient organisations, health agencies and networks for care at home. These new developments were expected to have significant impacts on both the scope and design of health policies. First identified by the ITEMS thematic network (Identifying Trends in European Medical Space, contribution of social and human sciences, FP5), such trends needed to be investigated to ensure that policy-making processes understand and take into account the implications of these changes.

### **SPECIFIC PROJECT OBJECTIVES**

As a result of the trends identified in the medical space through the ITEMS project, the MEDUSE project aimed at **setting up a dialogue between social scientists and non-academic actors in the field of health and medicine, on three issues of policy relevance:**

- The dynamics of patient organisations in the European area;
- The emergence of new technologies and responsibilities for health care at home across diverse European systems and cultures; and
- Cross-national and European perspectives on health safety agencies.

In order to investigate each of these themes, the project planned to organise three conferences, with the aim of gathering social scientists, professionals, patients' representatives and policy-makers, both at national and European levels. The organisation of such conferences, which also had the goal of disseminating findings and allowing for cross-examination of the issues discussed, relied on two sets of preparatory activities:

- The set-up of bibliographical databases on the three issues, comprising academic and grey literatures and reports from experts, available on ITEMS website; and
- Preparatory exchanges with participants on issues of particular interest to them.

### **SaS Dimension**

The project's purpose was consistent with the SaS Civil Society and Citizen Participation objective of creating an active exchange between relevant stakeholders, by organising conferences where civil society was not only supposed to be a passive receiver of information but was expected to take part in a reciprocal science-society exchange. This objective was visible in the project through the explicit will of having academics and non-academics on an equal footing during the conferences.

### **Innovation Union objectives**

By promoting dialogues among relevant stakeholders and policy makers, the MEDUSE project contributed to "*Strengthening the knowledge base and reducing fragmentation*" (first intermediate objective of the Innovation Union).

### **European Research Area (ERA)**

The MEDUSE project aimed at setting up a dialogue between social scientists and non-academic actors in the field of health and medicine and contributing therefore to an "*optimal circulation, access to and transfer of scientific knowledge including via digital ERA*" (fifth ERA priorities).

### **SaS Action Plan**

The project was in line with Action 20 of the SaS Action Plan as three conferences where civil society actively took part of the exchange were organised, thus in line with the action to '*organise local and regional dialogues on 'Science and Society'*'.

### **PROJECT RESULTS AND OUTCOMES**

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#### **Project objectives**

The project resulted in four direct outputs:

- An assessment of the state of play for each of the three themes identified
- The successful organisation of three conferences
- The establishment of conference proceedings
- The drafting of a series of syntheses reports, highlighting the main conclusions both on the state of play of each theme and on the results of the discussions.

These outputs were achieved by performing a set of tasks on the three themes identified:

- The production of a bibliographic database to inform a longer document 'the state of the art' on the issue of.
- The production of the State of the art document.
- The development of a Policy Paper identifying key themes and sub themes for debate at a wider forum.
- The identification of speakers to introduce the debate in the plenary sessions and circulation of the Policy Paper to them.
- The organization of the venue, the identification of the potential participants, the circulation of policy paper as part of invitation strategy.
- The event itself, i.e. the participative conference.
- The dissemination of conference proceedings through the website of the project.
- The writing of a detailed report by each work package co-leaders incorporating the state of the art and the policy paper with the synthesis of discussions and highlighting of participants; concerns, problems and future work identified.

According to the Project Report, all planned objectives were achieved.

#### **Main achievements according to SaS Dimensions**

The Civil Society and Citizen Participation objective of creating two-way exchange between civil society, stakeholders at large and policy-makers was achieved.

As specified in the Project Final Report, the selection of speakers and participants to the conferences was crucial as the aim was to set up a dialogue in each of the issues. Civil society was asked to actively participate to a bilateral exchange. For this reason, the project promoted a greater involvement of civil society representatives and went beyond the traditional one-directional dissemination of results.

### **DISSEMINATION AND ENGAGEMENT ACTIVITIES AIMED AT TRANSFERRING THE PROJECT RESULTS TO WIDER COMMUNITIES**

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The following dissemination activities were carried out:

- Emails were sent to international multidisciplinary professionals, academics and policy-makers
- A website for the project was created (not available anymore)
- The three Conferences were organised and their proceedings were published
- An edited volume of journal issue for each theme was published
- Three comparative research projects were launched with the Commission

Information on the conference was disseminated through several networks: European heads of agencies, national agencies, and academic networks in different countries and in Europe working on health, risk or regulation.

The dissemination plan also planned to develop a thematic entry for the conferences, to give access to a presentation of the projects conducted by research centres issued from the ITEMS extended network. It also planned to improve interrogation and consultation processes, in particular through a revision of the keywords system, in order to privilege terms that make sense for a great diversity of users.

However, on the basis of the Project Final Report, it is not possible to assess whether the two mentioned dissemination activity were realised.

## PROJECT IMPACTS

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### Potential impacts

The MEDUSE project Description of Work pointed to two main potential impacts:

- Increasing mutual understanding between social scientists and various actors who take part in experimentations and decisions on the three issues at stake; and
- Adding value to current reflections on these issues by investigating the way they are framed at European level.

Furthermore, the project's potential impact can be further assessed through the following indicators:

- **Betweenness centrality:** Three participating organisations of the MEDUSE project were amongst the most central participants in FP6.
- **Scientific attractiveness:** None project participant was ranked in the Leiden University ranking.
- **Business attractiveness:** None project participant was not ranked as one of the biggest R&D investors amongst SaS participants.

### Actual impacts

Actual impacts of the project can be summarised as follows:

- **Scientific impact:** the project in itself enabled to conduct a synthesis of the state of play in the three themes investigated, and led to exchanges with academics, civil society stakeholders and policy makers at EU level. However the final report only listed one related publication and no other scientific production mentioning the findings of the project could be found.
- **Institutional and organisational impact:** the project's final activity report did not mention any creation of organisation, network or models that would have survived after the completion of project MEDUSE.
- **Policy impact:** for each of the three themes investigated through the MEDUSE project, a set of recommendations to policy-makers were formulated and policy issues were identified. However, no further document stating whether these recommendations were applied afterwards could be identified.
- **Social impact:** Between May 2008 and May 2010, three posts were recorded on the social media, suggesting therefore a weak social media impact.

## PATH-BREAKING ADVANCEMENTS

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None.

## BEST PRACTICES

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None.

## EU ADDED VALUE OF THE PROJECT

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The purpose of the project lay in gathering the views of different actors at the European level on three themes that were themselves relevant when considered at a supranational scale. In that respect, organising the project through European programmes was needed to ensure that the conferences would reach a vast number of actors all across the EU and enable Europe-wide exchanges. The more far-reaching the conferences, the more impact such a project could have, therefore stressing the added-value of the EU perspective and dissemination channel for the MEDUSE project.

## PARTICIPANTS AND RESEARCH TEAM

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### Participants

Number of participants: 5

Number of countries involved: 4

	Type	Country	Role	Previous participations to FP
ASSOCIATION POUR LA RECHERCHE ET LE DEVELOPPEMENT DES METHODES ET PROCESSUS INDUSTRIELS	REC	FR	Coordinator	52



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	Type	Country	Role	Previous participations to FP
CENTRO DE ESTUDOS SOCIAIS	REC	PT	Participant	3
LANCASTER UNIVERSITY	HES	GB	Participant	28
UNIVERSITE DE LIEGE	HES	BE	Participant	72
CENTRE NATIONAL DE LA RECHERCHE SCIENTIFIQUE	REC	FR	Participant	539

### Team Composition

Team Size: 5 members

GENDER				
Female		Male		Unknown
55%		45%		0%
SENIORITY				
Average		Junior		Senior
0%		0%		100%
PhD				
No			Yes	
0%			100%	
BACKGROUND				
Applied Sciences	Health Sciences	Humanities & Social Sciences	Natural Sciences	Unknown
0%	45%	55%	0%	0%

\*The data are based on the analysis of the provided project's Description of Work.

### DELIVERABLES AND PUBLICATIONS

DELIVERABLE NO.	DELIVERABLE NAME	DUE DATE OF DELIVERY (month)	ACTUAL SUBMISSION DATE: (month)
D4-1	Consortium Agreement	1	-
D4-2	Server domain access and logistic-e-management platform guidelines	1	-
D4-3	Kick-Off Meeting Report	9	-
D4-4	Meeting of the Steering Committee 1 Report	9	-
D4-5	Progress Report	12	-
D4-6	Meeting of the Steering Committee 2 Report	15-16	-
D4-7	Meeting of the Steering Committee 3 Report	23	-
D1-1	Bibliography on the WP1 issue, including academic and grey literature references.	9	9
D1-2	WP1 "Policy paper", based on the analysis of the literature.	9	9
D2-1	Bibliography on the WP2 issue, including academic and grey literature references.	9	9
D2-2	WP2 "Policy paper", based on the analysis of the literature.	9	9
D3-1	Bibliography on the WP3 issue, including academic and grey literature references.	9	12
D3-2	WP3 "Policy paper", based on the analysis of the literature	9	9
D1-3	Draft on the WP1 conference, and pre-announcement on ITEMS website.	12	13
D2-3	Draft on the WP2 conference, and pre-announcement on ITEMS website.	14	13
D3-3	Draft on the WP3 conference, and pre-announcement on ITEMS website.	16	16
D1-4	Two-days WP1 conference gathering social scientists and all parties concerned.	18	18
D2-4	Two-days WP2 conference gathering social scientists and all parties concerned.	20	20
D3-4	Two-days WP3 conference gathering social scientists and all	22	22

Stock-taking and meta-analysis of Science in Society projects throughout FP6 and FP7  
Final Case Studies

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DELIVERABLE NO.	DELIVERABLE NAME	DUE DATE OF DELIVERY (month)	ACTUAL SUBMISSION DATE: (month)
	<i>parties concerned.</i>		
D1-5	<i>WP1 Conference proceedings made largely available, through ITEMS website and various means for communication.</i>	24	24
D2-5	<i>WP2 Conference proceedings made largely available, through ITEMS website and various means for communication.</i>	24	24
D3-5	<i>WP3 Conference proceedings made largely available, through ITEMS website and various means for communication.</i>	24	24
D1-6	<i>WP1 Final report, comprising proposals for the future in terms of research and policy outreach</i>	24	24
D2-6	<i>WP2 Final report, comprising proposals for the future in terms of research and policy outreach.</i>	24	24
D3-6	<i>WP3 Final report, comprising proposals for the future in terms of research and policy outreach.</i>	24	24
D4-8	<i>Governance, health, and medicine, final Report.</i>	24	-

### Related publications

"Food and pharmaceutical agencies in Europe. Between bureaucracy and Democracy. Cross-national perspectives. A Commented Bibliography", Cahiers Risques Collectifs et Situations de Crise n° 7, Publications de la MSH-Alpes, Grenoble, 250 p.

### MAIN SOURCES

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MEDUSE Project Description of Work  
 MEDUSE Project Final Activity Report  
 MEDUSE Project First Activity Report  
 MEDUSE Project Second Activity Report  
 CORDIS Database

## **ENHANCING THE EUROPEAN PARTICIPATION IN LIVING WITH CLIMATE VARIABILITY AND CHANGE: UNDERSTANDING THE UNCERTAINTIES AND MANAGING THE RISKS – "ENHANCE"**

**Framework Programme: FP6 related to SAS**  
**Dimension: CIVIL SOCIETY AND CITIZEN PARTICIPATION**  
**Tool: Specific Support Actions**  
**Project Call For Proposal: FP6-2005-GLOBAL-4**  
**Status: Closed**  
**Total cost: € 424 821**  
**Total EU funding: € 60 000**  
**Website: <http://www.livingwithclimate.fi/>**  
**Period: 01/05/2006 - 31/01/2007**  
**Subjects: Environmental Protection - Safety - Scientific Research**  
**Project ID and Acronym: ID: 36895, Acronym: ENHANCE**

### **BACKGROUND AND CONTEXT OF THE PROJECT AND STRATEGIC NEEDS**

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Climate change is becoming a sensitive factor in socio-economic activities as anthropogenic activities alter the Earth system. Losses and damage associated with climatic hazards require urgent and purposeful adaptation to climate conditions and managing climate-related risks.

Europe has a responsibility in relation to these global impacts and much to offer worldwide in terms of political will, technological expertise and management practices. It is therefore timely that Europe takes a leading role in this endeavour to harness management, technological and institutional issues at stake.

The conference "WMO Conference on Living with Climate Variability and Change: Understanding the uncertainties and managing the risks" (LWCVC) which was held in Espoo, Finland, 17- 21 July 2006, co-sponsored by the World Meteorological Organisation, the Finnish Meteorological Institute, and the International Research Institute for Climate Prediction, reviewed possibilities and constraints in integrating climate risks and uncertainties into the main decision-making areas that are critically sensitive to climate variability and change.

The conference was aimed at sharing experiences from public and private organisations worldwide that were engaged in creating and using climate information and predictions to assess and manage related risks. Particular efforts were devoted to the dissemination of the conference recommendations to key stakeholders. The focus of the conference was on decision-processes in a real-world context with critical climate relationships.

### **SPECIFIC PROJECT OBJECTIVES**

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#### **Project objectives:**

The project was expected to **deliver all organisational and logistical aspects of the WMO Conference on Living with Climate Variability and Change (LWCVC).**

The LWCVC agenda covered decision making research and five key sectors for which sensitivity to climate variability and change was considered significant: 1/agriculture and food security, 2/disasters and early warning, 3/energy and built environment, 4/human health and disease control, and 5/water resources. All five sectors were considered from three different perspectives: business, society, and environmental protection.

In addition, the scientific organising committee (SOC) suggested to address five cross-cutting issues: 1/long-term planning & development from the perspective of the public and private sector, 2/risk assessment & risk management, 3/interdisciplinary applied research, 4/financial mechanisms, and 5/long-term planning & development from the perspective of developing countries.

Through the project, the LWCVC aimed at disseminating knowledge on how to best integrate climate information, including current information, predictions and scenarios, into strategic planning, day-to-day decision-making and risk management.

The LWCVC was expected to:

- **Investigate how to meet the needs for climate data** and information on all planning horizons and at all spatial scales relevant to the functioning of societies;
- **Examine in detail the technical methods for and difficulties associated** with integrating data and information of disparate forms for planning, making decisions and managing risks;
- **Explore how climate information, knowledge, predictions and scenarios can contribute to societal planning, decision processes and risk management.**

The LWCVC was also expected to provide the opportunity to discuss options to initiate the design of an on-going process through which the results of climate science would be brought more effectively into the mainstreams of societal planning, decision processes and risk management.

#### **SaS dimension objectives**

The LWCVC intended to contribute to substantial progress in the establishment of an operable agenda for climate related risk management. More specifically, the LWCVC was expected to provide the opportunity to discuss options to initiate the design of an on-going process related to climate related risk management. In this way, the project's objective was consistent with the Civil Society and Citizen Participation dimension that consisted in creating the conditions for an informed debate between science, politics and society.

#### **Innovation Union objectives**

"Strengthening the knowledge base and reducing fragmentation" is the first intermediate objective of the Innovation Union. The LWCVC aimed at disseminating knowledge on how to best integrate climate information into strategy planning, day-to-day decision making and risk management. The ENHANCE project was therefore in line with the Innovation Union.

#### **European Research Area (ERA) objectives**

The conduct of the ENHANCE project was the opportunity to disseminate of climate information and contributed therefore to an "*optimal circulation, access to and transfer of scientific knowledge including via digital ERA*" (fifth ERA priority).

#### **SaS Action Plan**

The project consisted in the organisation of a conference with representatives of 62 countries, with the aim of disseminating information and discussing options to initiate the design of an on-going process related to climate related risk management. The project was therefore consistent with Actions 20 and 23 of the SaS Action Plan relating to the organisation of regional dialogues and inaugurating public discussions on specific themes.

### **PROJECT RESULTS AND OUTCOMES**

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263 participants from 62 countries attended the conference. The main results of the Conference were synthesised in the Espoo Statement.

The scientific organising committee (SOC) was composed of several European Member States representatives in order to facilitate the incorporation of relevant national research institutes and other important bodies' interests and work into the conference. Third countries were also represented to ensure that participants were exposed to cutting-edge investigations and thinking from a wide range of international research institutes and other important bodies.

Specific outcomes achieved include:

- A review and synthesis of efforts to date in the management of risk across social, environmental and economic planning, encompassing all planning horizons;
- An examination of how people become aware of the need to incorporate or improve on their management of the risks associated with climate variability and change (in the context of capacity constraints and competing priorities), and a critical assessment the role of climate information in supporting overall risk management;
- A review of the theory, practical techniques and challenges associated with the integration and blending of possibly disparate cross-disciplinary data and information for planning, making decisions and managing risks;

Conclusions and recommendations arose from discussions within each of the conference sector working groups: Decision Making, Natural Disasters and Early Warning Systems, Agriculture and Food Security, Human Health and Disease Control, Water Resources and Energy and the Built Environment.

It seems that the project met all planned objectives. However it is not possible to identify any missing achievements as the Final Report is not available.

#### **Main achievements according to SaS Dimensions**

The project enabled the organisation of a conference with participants coming from 62 countries and experts from both private and public organisations. As discussions were part of the plenary, it can be assessed that the project went beyond the one-directional approach consisting on the dissemination of project results and contributed to a more inclusive involvement of civil society representatives.

The conduct of the ENHANCE project led to the organisation of the LWCVC that was attended by 263 participants from 62 countries. Conclusions and recommendation arose from LWCVC discussions. Thus, the project was deemed successful in contributing to the Civil Society and Citizen Participation dimension.

## **DISSEMINATION AND ENGAGEMENT ACTIVITIES AIMED AT TRANSFERRING THE PROJECT RESULTS TO WIDER COMMUNITIES**

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The conference was in itself a dissemination activity, with participants coming from 62 countries and including experts from both private and public organisations. Poster presentations and discussions during plenary and breakout sessions were also organised.

At registration, LWCVC participants received an abstract volume which covered the invited lectures and the posters. The LWCVC consisted of a mix of lead, key note, and cross-cutting invited speakers, who are eminent in their respective fields, and a series of workshop-type breakout sessions. These sessions provided opportunities for all participants to discuss the issues relevant to decision-making processes in general and to the broad range of problems on decision-making in the various climate-sensitive sectors.

The LWCVC proceedings with recommendations for follow-up action were published in 2006 and made publicly available. The Espoo statement and all conferences papers presented during the conference were also made publicly available on the project website.

As the project report is not available, it is not possible to assess whether all planned dissemination activities were implemented.

## **PROJECT IMPACTS**

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### **Potential impacts**

The impacts of the LWCVC intended to have a long track in view of the pioneering aspects of the themes and approaches chosen to be addressed during the Conference. The mix of participants in terms of sectors (business, decision makers and scientists), fields and geography was expected to leave its mark in future policy and negotiation forums concerning climate change and societies under risks.

The project's potential impact can be further assessed through the following indicators:

- **Betweenness centrality:** The only participant of the ENHANCE project was not amongst the most central FP6 participants.
- **Scientific attractiveness:** The only participant of the project was not ranked in the Leiden University ranking.
- **Business attractiveness:** The ENHANCE project had no participant ranked as one of the biggest R&D investors amongst SaS participants.

### **Actual impacts**

Beyond expectations, the actual impacts can be classified into the following sections:

- **Scientific impact:** the goal of the conference was to make substantial progress in the establishment of an operable agenda for climate related risk management, and to propose an enduring process for future work. In this way, recommendations were formulated. That suggests a positive impact from a scientific point of view. However no citations could be found referring directly to the project, probably due to its focus on organisational and logistics aspects of the conference.
- **Institutional and organisational impact:** recommendations formulated during the conference are requested to be considered by WMO, other UN system organisations, and sectorial and development organisations operating at national, regional and international levels. However, no data can be found whether recommendations were applied by those organisations.
- **Policy impact:** similarly as the institutional and organisational impact, the application of recommendations could have an impact on climate sensitive policies. Nevertheless, deliverables do not specify anything regarding the policy impact.
- **Social media impact:** No relevant social impacts were identified in relation to social media. That can be partially explained by the state of the technology at the time of project implementation.

## **PATH-BREAKING ADVANCEMENTS**

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None.

## **BEST PRACTICES**

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None.

## EU ADDED VALUE OF THE PROJECT

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The EU had a strong impact on the project success as an enabler of European and international scientific cooperation. The EU also increased visibility for the conference.

## PARTICIPANTS AND RESEARCH TEAM

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### Participants

Number of participants: 1

Number of countries involved: 1

	Type	Country	Role	Previous participations to FP
FINNISH METEOROLOGICAL INSTITUTE	REC	FI	Coordinator	18

### Team Composition

Team Size: members\*

GENDER				
Female		Male		Unknown
1		3		0
SENIORITY				
Average		Junior		Senior
0		2		2
PhD				
No			Yes	
2			2	
BACKGROUND				
Applied Sciences	Health Sciences	Humanities & Social Sciences	Natural Sciences	Unknown
			1	3

\*The data are based on the analysis of the provided project's Description of Work.

## DELIVERABLES AND PUBLICATIONS

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DELIVERABLE NO.	DELIVERABLE NAME	DUE DATE OF DELIVERY (month)	ACTUAL SUBMISSION DATE: (month)
D1	Description of Work	-	-
D2	Espoo statement	-	-

## MAIN SOURCES

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### Documentary review:

ENHANCHE CONSORTIUM (2005), Annex 1 - Description of Work  
LWCVC Final report  
Project website <http://www.livingwithclimate.fi/>

### Interviews:

Dr. Jaakko Helminen, Chairman of the Local Organising Committee

## **PATIENT LED EDUCATION AND DEVELOPMENT FOR GENETIC TESTING IN RESEARCH AND MEDICINE - "EUROGENGUIDE"**

**Framework Programme: FP6 related to SAS**  
**Action line/Part: -**  
**Activity: -**  
**Area: -**  
**Dimension: CIVIL SOCIETY AND CITIZEN PARTICIPATION**  
**Tool: Specific Support Actions**  
**Project Call For Proposal: FP6-2004-LIFESCIHEALTH-5**  
**Status: Closed**  
**Total cost: € 499.476,00**  
**Total EU funding: € 499.476,00**  
**Website: [www.eurogenguide.org.uk](http://www.eurogenguide.org.uk)**  
**Period: 01/01/2007 - 31/12/2009**  
**Subjects: Biotechnology - Legislation and Regulations - Life Sciences - Policies**  
**Project ID and Acronym: ID:518156, Acronym: EUROGENGUIDE**

### **BACKGROUND AND CONTEXT OF THE PROJECT AND STRATEGIC NEEDS**

Genetics and genomics have gained significant importance in the field of biomedical research, both in the EU and worldwide. As a result, an increasing number of people have been and will be concerned by genetics, be it as patients, as part of screening programmes or as research programme participants. However these developments were not accompanied by the definition of a coordinated European strategy, despite the need to foster the wider public's understanding and use of such technologies. Due to this lack of information, educational material and European communication strategy, genetic testing in the EU has been considered with scepticism and mistrusted by the population.

### **SPECIFIC PROJECT OBJECTIVES**

#### **Project Objectives**

The key objective of EuroGenGuide was to create a manual to serve as educational material for health professionals, consumers and patients, in order to:

- Enable the European public to make informed choices about participation in genetic research and genetic testing;

Educate researchers and health professionals to engage patients and clients in an appropriate consent process.

The tools to be developed under EuroGenGuide were expected to reflect a clear, consumer/patient focused perspective on issues common to all genetic human subject research and clinical testing situations, such as informed consent, storage of genetic information, confidentiality, risks and benefits, and communication of results. More specifically, EuroGenGuide was strongly focusing on informed consent issues in genetic testing both in research and health care.

#### **SaS dimensions**

The EuroGenGuide project aimed to increase public awareness of genetics and genomics, with a view to enabling citizens to make informed choices about participation in genetic research and testing, and simultaneously increase research opportunities in that field. The objectives of the project were therefore fully consistent with the SaS Civil Society and Citizen Participation dimension's objective of bridging the gap between scientific advances on the one hand and the population's growing scepticism towards science on the other.

#### **Innovation Union objectives**

By aiming to stimulate the public's trust in, and support for, research in genetics, the EuroGenGuide project was consistent with the Innovation Union objective of strengthening the knowledge base of society as well as promoting openness and capitalising on Europe's creative potential.

#### **European Research Area (ERA) objectives**

The EuroGenGuide project aimed to increase the population's understanding of research in genetics by developing educational material on the topic. In that respect, the project's objectives were in line with the ERA objective of promoting optimal circulation, access and transfer of scientific knowledge.

#### **SaS Action Plan**

The manual serving as educational material for health professionals, consumers and patients was promoted during international conferences, published on websites and distributed to several partners. Through those dissemination activities, the project contributed to specific actions under the SaS Action Plan relating to public discussions and hearings on specific themes (Action 23) such as genetics and genomics. Moreover, by promoting public awareness and

delivering training material across Europe to a large number of stakeholders, the project indirectly contributed to the organization of regional and local dialogues on Science and Society (Action 20).

## PROJECT RESULTS AND OUTCOMES

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### Main achievements according to project objectives

The project achieved the following results:

- A manual of two parts was produced to be used both by patients and health professionals across Europe. This guide contained information about genetic testing and research, as well as the informed consent issues related to these procedures. The content of the manual was in line with the guidelines endorsed by the European Commission for Life Sciences and Biotechnology.
- The content of the manual's first and second draft was tested on patient focus groups to ensure its effectiveness, accuracy and make it as understandable and comprehensive as possible.
- A website was created ([www.eurogenguide.org.uk](http://www.eurogenguide.org.uk)) where all the information in the manual were made available online.

EuroGenGuide enabled the production of a manual representative of the issues relevant to patients affected by genetic disorders. As its content was built through a "patient-led" approach relying on the opinion of patient focus groups, it contributed to including civil society into research on genetics. Moreover the manual contributed to the effort of empowering the European public to make informed choices and to educate researchers as well as health professionals. The project's results therefore met the objectives of the Civil Society and Citizen Participation dimension in terms of bridging the gap between science and civil society.

### Main achievements according to SaS Dimensions

The distribution of educational and training material increased public awareness. However, it does not seem that the project ensured a greater involvement of civil society representatives by promoting a participatory approach.

## DISSEMINATION AND ENGAGEMENT ACTIVITIES AIMED AT TRANSFERRING THE PROJECT RESULTS TO WIDER COMMUNITIES

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The following dissemination activities were carried out:

- EuroGenGuide was presented during international conferences by the project teams (number of conferences not available);
- A conference was organised in Warsaw, Poland, and gathered over 60 attendees and high profile speakers from science, medicine, polish government and patient communities;
- A website was created ([www.eurogenguide.org.uk](http://www.eurogenguide.org.uk)), although its content was eventually incorporated into the coordinating partner's website for genetic Interest Group Genetic Alliance (<http://www.geneticalliance.org.uk>);
- A CD containing a copy of the guide was sent to all partner organisations, European genetics societies and a range of other interested EU scientific, medical or patient-focused bodies interested in the welfare of people affected by genetic disorders.

The following dissemination objectives were also foreseen in the Description of Work:

- Publications based upon the EuroGenGuides' material in scientific journals such as Community Genetics, and lay patient journals
- Installation of the educational materials through the infrastructure provided by the NoE EUROGENTEST

However, information on the three above mentioned objectives was not provided in the Final Report.

## PROJECT IMPACTS

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### Potential impact

The project had the following expected impact:

- To contribute to **building and maintaining European competitiveness** in the field of genetic research and **address the unmet health needs of citizens**, by fostering the public's support and increasing participation of civil society in related research tests (donate samples, become subjects in clinical trials, or help sustain and encourage this area);
- To enable all patients to give **informed consent** before participating in biomedical research projects;



- To **contribute to standards** in the field of genetics by building upon the knowledge gained through major international and national research activities, such as the EU-funded “Genetic education for non-health professional” project, the European infrastructure stemming from the NoE EUROGENEST, the international Public Population Project in genomics (P3G), the HapMap project, the UK Genetics Knowledge Parks network and the NHS genetics education centre;
- To **contribute to policy developments** through the influence of the project participants gathering stakeholders from various patients organisations, science and academia.

Potential impact can be further assessed through the following indicators:

- **Betweenness centrality:** Out of the ten institutions participating in the project, only one was part of the top 1% most central institutions having participated in FP6.
- **Scientific attractiveness:** Only one university took part in the project and was not mentioned in the Leiden University Ranking.
- **Business attractiveness:** No participants were part of the biggest R&D investors to have participated in SaS projects. This can notably be explained by the fact that participants were mainly specialised research institutes and interest groups.

### Actual impact

Actual impacts can be clustered into four types:

- **Scientific impact:** No scientific publications referring to the EuroGenGuide project could be found.
- **Social media impacts:** Only four posts referring to the EuroGenGuide project could be found in social media, suggesting a non-existent impact of the project through this channel.
- **Institutional and organisational impact:** No institutional nor organizational impact could be identified as a result from the project.
- **Policy impact:** No specific policy impact could be identified. However, the project was used as a “show case” of good patient involvement in the EU-funded “Value+” project.

### PATH-BREAKING ADVANCEMENTS

None.

### BEST PRACTICES

None.

### EU ADDED VALUE OF THE PROJECT

As the issue of civil society’s lack of information and mistrust towards research in genetics and genomics was widespread throughout Europe, funding the project through EU funds in order to reach a wider public was fully justified. Resorting to a European consortium furthermore enabled to test the manual on a wider set of patient groups and consequently achieve higher quality results more representative of patients’ concerns.

### PARTICIPANTS AND RESEARCH TEAM

#### Participants

Number of participants: 10

Number of countries involved: 6

	Type	Country	Role	Previous participations to FP
GENETIC INTEREST GROUP	OTH	GB	Coordinator	2
RARE DISORDERS BELGIUM	OTH	BE	Participant	0
ALZHEIMER EUROPE	OTH	LU	Participant	0
GLOBAL ALLIANCE OF MENTAL ILLNESS ADVOCACY NETWORKS - EUROPE	OTH	BE	Participant	0
HEART EU, DE EUROPESE CHOLESTEROL PATIENTEN STICHTING	OTH	NL	Participant	0
EUROPEAN PARKINSON'S DISEASE ASSOCIATION	OTH	BE	Participant	0
VERENIGING SAMENWERKENDE OUDER EN PATIENTENORGANISATIES	OTH	NL	Participant	0

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	Type	Country	Role	Previous participations to FP
WESTFALISCHE WILHELMS-UNIVERSITÄT MUNSTER	HES	DE	Participant	0
CAMBRIDGE BIOMEDICAL CONSULTANT LTD	OTH	GB	Participant	0
FONDAZIONE IRCCS OSPEDALE MAGGIORE POLICLINICO MANGIAGALLI E REGINA ELENA	OTH	IT	Participant	0

### Team Composition

Team Size: members\*

GENDER				
Female		Male		Unknown
30%		70%		0%
SENIORITY				
Average		Junior		Senior
10%		0%		90%
PhD				
No			Yes	
50%			50%	
BACKGROUND				
Applied Sciences	Health Sciences	Humanities & Social Sciences	Natural Sciences	Unknown
0%	30%	10%	40%	10%

\*The data are based on the analysis of the provided project's Description of Work.

### DELIVERABLES AND PUBLICATIONS

#### Project deliverables

DELIVERABLE NO.	DELIVERABLE NAME	DUE DATE OF DELIVERY (month)	ACTUAL SUBMISSION DATE: (month)
D1	Coordination centre fully established	M3	M3
D2	IT tools for communication implemented	M3	M3
D3	Protocol on task monitoring	M4	M4
D4	Protocol on integration of gender aspects	M4	M4
D5	1st Consultations Steering Committee	M3	N3
D6	1st meeting Task Force	M5	M5
D7	Informed consent review and protocols	M12	-
D8	DNA-banking review and protocols	M12	-
D9	Access & benefit sharing review and protocols	M12	-
D10	Gender, ethnic minorities and vulnerable groups review and protocols	M12	-
D11	Focus Group meeting	M12	M13
D12	1st draft EuroGenGuide consumer manual	M16	M16
D13	Standardised review form for 1st draft EuroGenGuide consumer manual	M16	M16
D14	1st draft educational materials for health professionals	M20	M16
D15	Review of 1st draft EuroGenGuide consumer manual	M20	-
D16	Review 1st draft educational materials for health professionals	M24	-
D17	2nd draft EuroGenGuide consumer manual	M24	-
D18	Standardised review form for 2nd draft EuroGenGuide consumer manual	M24	-
D19	2nd draft version of the educational materials for health professionals	M24	-
D20	Review of 2nd draft EuroGenGuide consumer manual	M28	-
D21	Review of 2nd draft educational materials for health professionals	M28	-
D22	Validation of EuroGenGuide consumer manual	M33	-

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<i>DELIVERABLE NO.</i>	<i>DELIVERABLE NAME</i>	<i>DUE DATE OF DELIVERY (month)</i>	<i>ACTUAL SUBMISSION DATE: (month)</i>
<i>D23</i>	<i>Final draft of educational materials for health professionals</i>	<i>M33</i>	-
<i>D24</i>	<i>Dissemination of EuroGenGuide consumer manual</i>	<i>M36</i>	-
<i>D25</i>	<i>Dissemination and implementation of the educational materials for health professionals</i>	<i>M36</i>	-
<i>D26</i>	<i>Organisation "Launch Meeting"</i>	<i>M36</i>	-

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**MAIN SOURCES**

EuroGenGuide Description of Work  
EuroGenGuide Deliverables  
EuroGenGuide Final Activity Report

## Civil Society and Citizen Participation: FP7 Related to SiS

## **CIVIL SOCIETY FOR SUSTAINABILITY - "CSS"**

**Framework Programme: FP7 related to SIS**  
**Activity: 4.2.3.2 Engaging civil society in research on sustainable development**  
**Dimension: CIVIL SOCIETY AND CITIZEN PARTICIPATION**  
**Tool: Research for the benefit of specific groups**  
**Project Call For Proposal: FP7-ENV-2007-1**  
**Status: Closed**  
**Total cost: € 1,001,974.00**  
**Total EU funding: € 851,994,00**  
**Website: -**  
**Period: 01/01/2009 - 31/12/2011**  
**Subjects: Social Aspects – Sustainable development**  
**Project ID and Acronym: ID: 212269 Acronym: CSS**

### **BACKGROUND AND CONTEXT OF THE PROJECT AND STRATEGIC NEEDS**

Civil society organisations (CSO) play a central role in the implementation of sustainable development (SD). Civil society actors exhibit special features, are to a large degree driven by visions or ideals, place a focus on common action, participate in initiatives about sustainable development in society, enhance social capital, and share a non-economical (non-efficiency driven) world view.

Given these characteristics, CSOs show some specific shortcomings: their non-economical worldview leads to less efficient pursuit of SD goals and to a weak representation in political and economic decision-processes: initiating discourses often exclude evidence-based thinking, giving away chances for increased self-reflexivity and learning: and a lack of institutionalisation within existing institutional frameworks of governance provide not sufficient leverage to influence policy.

Besides, there are numerous specific and context-related issues that would need to be addressed in order to increase efficiency of CSOs. To foster sustainability from an analytical perspective, there are two aspects underlying all these context-dependent problems:

- Degree of institutionalisation of sustainable development effort within a local/regional context (socio-economical-political-cultural).
- Sustainability knowledge and sustainability learning: getting sustainability across the people.

### **SPECIFIC PROJECT OBJECTIVES**

The CSS project was designed to **improve the collaboration between three CSOs and scientific research partners in Slovenia, Hungary and Germany**. This tandem structure was put in place to ensure extensive interaction and two-way communication between researchers and CSO participants.

Several problems of institutional embedding into participative governance structures (which rarely ever exist) and of sustainable action support are addressed by the following project objectives:

- Improve the institutional as well as personal embedding of sustainability-driven civil society organisations as well as the implementation process itself (institutionalisation through planned development of human, organisation, social and financial resources of CSOs);
- develop and assist in the implementation of practicable and meaningful instruments taking advantage of available theoretical background for CSO in order to institutionalise themselves as regards implementation and financing (using managerial tools to professionalize CSO activities, attract new members by effective SD campaigns, improve organisation structures and CSO management);
- Increase long-term self-reflexivity of sustainability-driven CSO, thus enabling them to contribute to public debate on and action for sustainable development.

#### **SiS dimension objectives**

The CSS project was designed to find methods and tools to involve more CSOs in the governance process. In this way, the project's objective was consistent with the purpose of the civil society and citizen participation dimension that consisted in creating the conditions for an informed debate between science, politics and society.

#### **Innovation Union objectives**

"*Strengthening the knowledge base and reducing fragmentation*" is the first intermediate objective of the Innovation Union. By fostering the involvement of CSOs in the governance process, the CSS project aimed at reducing fragmentation among the European society and was therefore in line with the Innovation Union.

#### **European Research Area (ERA) objectives**

The conduct of the CSS project was about promoting CSOs involvement in the governance process that therefore contributed to an “*optimal circulation, access to and transfer of scientific knowledge including via digital ERA*” (fifth ERA priority).

### **SaS Action Plan**

The CSS project was coherent with the SaS Action Plan and in particular contributed to the organisation of local and regional dialogues on Science and Society (Action 20) and of public discussions and hearings on specific themes (Action 23), through the organisation of a European conference on civil society for sustainability, the publication of a guidebook that provided a reflection on participative governance, as well as workshops, presentations and public events that encourage mutual learning.

### **PROJECT RESULTS AND OUTCOMES**

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The CSS project lead to the following results:

- Elaboration of a CSO organizational theory framework;
- Drafting of theory-driven CSO guidebook that address the issues of participative governance structures and sustainable action support. The guidebook was released through the homepage as well as through an academic publisher;
- Providing management tools on how to manage science-CSO research networks.

### **Main achievements according to SiS Dimensions**

By delivering materials and management tools addressing the question of how to involve CSOs in the governance process, the CSS project aimed to move towards a more inclusive approach through the creation of materials and tools to address the manner in which CSOs should be involved in the governance process. The participants and coordinators of the project consortium also included civil society organisations in the elaboration of these materials through the organisation of workshops for CSO representatives and researchers to discuss the problems, questions and the best practices of action research methods.

### **DISSEMINATION AND ENGAGEMENT ACTIVITIES AIMED AT TRANSFERRING THE PROJECT RESULTS TO WIDER COMMUNITIES**

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For the CSS project, the dissemination strategy is based on the following channels:

- Internet and social media: animation of a Facebook page and elaboration of the CSS project website: for instance, on the website homepage, all public documents, deliverables and intermediate results from meetings are available. Newsletters were also released;
- At the regional level, newspapers and press reports were drafted;
- The CSO guidebook which is one of the main deliverables of the project. The guidebook concentrates the main findings of the CSS project from the viewpoint of all three tandems;
- Organisation of public events, presentations and workshop to spread the knowledge produced.
- Organisation of a European conference on civil society for sustainability and drafting of a report.

All 18 deliverables planned in the Description of Work were produced. Moreover on the basis of the Dissemination plan it seems that all planned activities were carried out.

### **PROJECT IMPACTS**

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#### **Potential impacts**

The CSS project was designed to build long-term partnerships between sustainability researchers and sustainability-driven CSO through joint research and outsourcing of research activities to the RTD-perform. It was therefore supposed to contribute to both scientific as well as public debate on sustainable development.

The project’s potential impact can be further assessed through the following indicators:

- **Betweenness centrality:** The project only had one participating organisation that was amongst the most central FP7 participants.
- **Scientific attractiveness:** No CSS project participant was ranked in the Leiden University ranking.
- **Business attractiveness:** The CSS project had no participant ranked as one of the biggest R&D investors amongst SiS participants.

#### **Actual impacts**

Actual impacts can be classified into the following sections:

- **Scientific impact:** based on the project results, project partners answered the questions "what an organisation is a CSO?" and the related sub-questions. Project partners elaborated CSO organisational theory framework, theory-driven CSO guidebook and released scientific articles. This suggests a positive impact from a scientific point of view;
- **Organisation and institutional impact:** project partners specified in the final report that activities carried out under the framework of CSS project promoted the diffusion of knowledge base about sustainability and enlightened channels and formats of communication helping to involve more people in the governance process. That would have an impact on the organisation however nothing is specified whether those findings have been applied;
- **Policy impact:** the project was not supposed to have policy impact and nothing is specified in this way;
- **Social media impact:** in the dissemination plan, project partners specified the animation of a Facebook page. Nevertheless, no information can be found regarding the number of posts and their impact on the project.

### PATH-BREAKING ADVANCEMENTS

None.

### BEST PRACTICES

None.

### EU ADDED VALUE OF THE PROJECT

The CSS project was designed to lead to a better understanding of theory and practice on engaging CSO in sustainable development through research on three EU CSOs while at the time address the wider issue of enabling European civil society to fill out their part in sustainable development on a European level (through the elaboration of the CSO guidebook). The added-value of the project is therefore to provide findings that go beyond national specificities while it took profit of them for providing general management instruments for sustainability-driven CSOs.

### PARTICIPANTS AND RESEARCH TEAM

#### Participants

Number of participants: 6

Number of countries involved: 3

	Type	Country	Role	Previous participations to FP
DIALOGIK GEMEINNUETZIGE GESELLSCHAFT FUR KOMMUNIKATIONS UND KOOPERATIONSFORSCHUNG	REC	DE	Coordinator	10
HUNGARIAN ACADEMY OF SCIENCES	REC	HU	Participant	5
ULMER INITIATIVKREIS NACHHALTIGE WIRTSCHAFTSENTWICKLUNG	REC	DE	Participant	1
REGIONAL ENVIRONMENTAL CENTER FOR CENTRAL AND EASTERN EUROPE -REC	PUB	HU	Participant	1
ENERGIACLUB SZAKPOLITIKAI INTEZET MODSZERTANI KOZPONT EGYESULET	REC	HU	Participant	2
MUTADIS CONSULTANTS SARL	PRC	FR	Participant	5

#### Team Composition

Team Size: members\*

GENDER

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Female		Male		Unknown	
14%		86%		0%	
<b>SENIORITY</b>					
Average		Junior		Senior	
0%		0%		100%	
<b>PhD</b>					
No			Yes		
29%			71%		
<b>BACKGROUND</b>					
Applied Sciences	Health Sciences	Humanities & Social Sciences	Natural Sciences	Unknown	
14,29%	0%	71%	14%	0%	

\*The data are based on the analysis of the provided project's Description of Work.

### DELIVERABLES AND PUBLICATIONS

DELIVERABLE NO.	DELIVERABLE NAME	DUE DATE OF DELIVERY (month)	ACTUAL SUBMISSION DATE: (month)
D1.1	Research gaps of uniw, REC and Energia Klub	6	7
D1.2	Individual implementation strategy for CSO instruments	15	15
D2.1	Evaluation & correction	24	24
D2.2	Meta-research	30	-
D3.1	CSO-guidebook	36	-
D4.1	Status report on networking & training activities	12	12
D4.2	Status report on networking & training activities	24	30
D4.3	Final report on networking & training activities	30	30
D5.1	Homepage	3	-
D5.2	Dissemination strategy concept	12	12
D5.3	Dissemination strategy evaluation	24	-
D5.4	Conference report	36	-
D5.5	Final plan for the use and dissemination of foreground	36	-
D6.1	Kick-off report	3	3
D6.2	18 months activity report & project budget	18	-
D6.3	36 months activity report & project budget	36	-
D6.4	Final report & project budget (including revision)	36	-
D6.5	Report on wider societal implications	36	-

Although project partners specified in their deliverables the drafting of scientific publications, their titles cannot be found.

### MAIN SOURCES

#### Documentary review:

The eCORDA;  
CORDIS database;  
OPENAIRE database;  
CSS CONSORTIUM (2008), Annex 1 - Description of Work  
CSS CONSORTIUM (2011), final report



## **ENHANCING PUBLIC AWARENESS ON THE RESULTS OF THE EUROPEAN RESEARCH ACTIONS ON NANOSCIENCES AND NANOTECHNOLOGIES THROUGH THE PROFESSIONAL USE OF TELEVISION MEDIA AND THE INTERNET –NANO-TV**

**Framework Programme: FP7 related to SIS**  
**Dimension: Civil society and citizen participation**  
**Tool: Coordination and support action**  
**Project Call For Proposal: FP7-NMP-CSA-2**  
**Status: Closed**  
**Total cost: € 782.866,00**  
**Total EU funding: € 702.500,00**  
**Website: -**  
**Period: 01/01/2009 - 31/12/2010**  
**Subjects: Information and media – Nanotechnologies and nanosciences**  
**Project ID and Acronym: ID: 233486 NANO-TV**

### **BACKGROUND AND CONTEXT OF THE PROJECT AND STRATEGIC NEEDS**

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EU-funded research on nanosciences and nanotechnologies encompasses a large variety of RTD issues and is among the leading European initiatives which support the improved competitiveness of the European industry. The funding of this Theme amounts to several hundreds of millions of euros and involves all of the major European industries as well as many SMEs, universities and other organisations.

However, the general public is largely unaware of the activities related to nanosciences and nanotechnologies carried out by the European Commission and of the many benefits which may derive from the exploitation of the results of this research. This is due to the fact that often the communication of facts, figures and results from the European research is generally not sufficiently comprehensive in terms of raising awareness, particularly of nanosciences and nanotechnologies, with their implications for the knowledge economy and many social and economic issues not sufficiently evident

Raising public awareness should therefore constitute a priority for the nanosciences, nanotechnologies, materials and new production technologies (NMP) theme. The easiest and most efficient way to achieve this is to use broadcast media – the largest available dissemination platform existing in the world today. Unfortunately, audiovisuals are not the preferred dissemination for most NMP projects, as these projects in general target more restricted audiences, such as specific business communities or the academic world.

### **SPECIFIC PROJECT OBJECTIVES**

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#### **Project objectives:**

The strategic objective of NANO-TV was to **contribute to the development of public awareness on European research of nanosciences and nanotechnologies** in all European countries through the professional use of television media and the Internet.

The NANO-TV aimed to reach this objective through the following activities:

- **Enhance and fully exploit the audio-visual TV communication model** developed by the project partnership over the past 10 years, based on the Youris platform;
- **Exploit the profound knowledge of the EU research programme in FP6 and FP7** obtained by the consortium to identify and highlight the key results from the NMP Theme in FP6 and FP7;
- **Create a series of 14 high-quality free-of-rights video news releases (VNRs)** for the general public, four of which address young people, on the basis of the key results of the research;
- **Include the project's audiovisual productions** in the mainstream broadcasting of the European TV stations by implementing a consolidated communication model involving the totality of the national European TV media;
- **Establish a sound science-based dialogue on nanosciences** by introducing all released VNR's and the associated written materials;
- **Monitor the results of the project and assess its achievements and success**, by assessing the overall impact of the project and collecting actual broadcasts made by European TV stations and including them on a DVD at the end of the project for future use and exploitation.

#### **SIS dimension objectives**

The NANO-TV project was designed to contribute to the development of public awareness on European research of nanosciences and nanotechnologies in the European Union. In that respect, the project's objective was consistent with the purpose of the civil society and citizen participation dimension that consisted in creating the conditions for an informed debate between science, politics and society.

### **Innovation Union objectives**

"*Strengthening the knowledge base and reducing fragmentation*" is the first intermediate objective of the Innovation Union. By contributing to the development of public awareness on European research of nanosciences and nanotechnologies in the European Union, the NANO-TV project aimed at transferring knowledge and was therefore in line **with the Innovation Union**.

### **European Research Area (ERA) objectives**

The conduct of the NANO-TV project related to the promotion of public awareness of European research of specific topics (nanosciences and nanotechnologies) through the professional use of television media and the Internet enabling knowledge transfer. The project contributed therefore to an "*optimal circulation, access to and transfer of scientific knowledge including via digital ERA*" (fifth ERA priority).

### **SaS Action Plan**

The project was coherent with Action 23 of the SaS Action Plan, as it encouraged public discussions and hearings on specific themes such as nanosciences and nanotechnologies. The project also contributed to Action 20, as local and regional dialogues on "Science and Society" were encouraged through the establishment of permanent relations with several European TV stations and an audience of tens millions of people.

## **PROJECT RESULTS AND OUTCOMES**

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The project achieved the following results in the period January 2009 - December 2011:

- **Performance of a complete analysis of the Directorate-general (DG) RTD FP6 and FP7 NMP projects**, leading to the selection of 14 projects identified for filming and distribution to the European TV stations (WP1). These activities included the selection of three projects identified for filming to be presented at the EuroNanoForum event in Prague, June 2009;
- **Filming of the selected 14 projects through on-site visits.**
- **Delivery of a total of approximately 210 minutes of video material (teasers plus b-rolls) to the European TV stations and the Commission services (WP2 / WP3).**  
- Establishment of permanent relations with a number of European TV stations on the themes treated by the NANO-TV audio-visual (WP3);
- **Agreement for the inclusion of the NANO-TV audio-visual into the distribution mainstreams of DG RTD (AthenaWeb and other indexed resources) (WP3);**
- **Distribution of information regarding the produced audio-visual to European TV stations**, and consequent delivery of the actual productions to a subset of TV channels (WP3);
- **Broadcasting of NANO-TV videos** to an audience of tens of millions of people (WP4), for 195 individual TV take-ups and broadcasts registered at the end of the reporting period.

According to the Project Report, the achievements correspond to the expected results.

### **Main achievements according to SiS Dimensions**

By delivering a series of different materials (films, audio-visual) through various channels (European TV stations and Commission services), the NANO-TV project contributed to the development of public awareness on European research of nanosciences and nanotechnologies in the European Union. The project was therefore deemed successful in contributing to the objectives of the SiS Civil Society and Citizen Participation dimension.

While a strong focus was observed with regards to dissemination activities and in particular the promotion of public awareness on specific fields of nanosciences and nanotechnologies at the EU level, there is not evidence that the project directly contributed to a more inclusive involvement of civil society representatives.

## **DISSEMINATION AND ENGAGEMENT ACTIVITIES AIMED AT TRANSFERRING THE PROJECT RESULTS TO WIDER COMMUNITIES**

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The target groups and dissemination activities of NANO-TV were:

- National and regional TV stations in all 27 EU Member States, reached by the project through direct dissemination to their commissioning editors, journalists and partner production companies. This users' community was directly targeted by the project;

- The general public, including young people, reached through the TV programmes, who would receive, edit and broadcast the VNRs delivered by the project, and through the internet (including project's target sites and the general on-line press);
- Young people and learners, to be reached through TV programmes and via the internet;
- The nanotechnologies stakeholders' chain, including public institutions (e.g. RTD ministries, NGOs, other organizations, etc.) and industry players;
- The Commission Services, who could benefit of the output of the project for future own exploitation and use.

Due to a lack of complete information collected, it is not possible to assess if all planned dissemination activities were achieved.

## PROJECT IMPACTS

The NANO-TV project was expected to contribute to the development of public awareness on European research of nanosciences and nanotechnologies in all the European countries through the professional use of television media and the Internet.

The project's potential impact can be further assessed through the following indicators:

- **Betweenness centrality:** The project only had one participating organisation that was amongst the most central FP7 participants.
- **Scientific attractiveness:** No NANO-TV project participant was ranked in the Leiden University ranking.
- **Business attractiveness:** The NANO-TV project had no participant ranked as one of the biggest R&D investors amongst SiS participants.

## Actual impacts

Based on the documentation provided, it is impossible to assess whether the NANO-TV reached the desired impacts. However, it can be outlined that the social media impact was not significant as between January 2009 and December 2012, only two posts on social media were recorded.

## PATH-BREAKING ADVANCEMENTS

None.

## BEST PRACTICES

None.

## EU ADDED VALUE OF THE PROJECT

Project partners did not specify their analysis regarding the EU added value of their project however it seems to be relevant. In particular, in their Description of work, project partners outlined that one of the main grounds of the NANO-TV partnerships is the belief that unification of intent and activities might boost audience and mutual interest in partners' work by a very large share of users. In addition, the EU funding in this project had a significant leverage effect: more than 89% were funding by the European Commission.

## PARTICIPANTS AND RESEARCH TEAM

### Participants

Number of participants: 4

Number of countries involved: 4

	Type	Country	Role	Previous participations to FP
ICONS SRL	PRC	IT	Coordinator	6
GEDEON PROGRAMMES SA	PRC	FR	Participant	4
LEONARDO FILM GMBH	PRC	DE	Participant	4
INSTITUTE OF NANOTECHNOLOGY	OTH	GB	Participant	15

No publication seems to have been published.

### Team Composition

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Team Size: members\*

GENDER				
Female		Male		Unknown
50%		38%		13%
SENIORITY				
Average		Junior		Senior
13%		25%		63%
PhD				
No			Yes	
100%			0%	
BACKGROUND				
Applied Sciences	Health Sciences	Humanities & Social Sciences	Natural Sciences	Unknown
0%	0%	67%	0%	33%

\*The data are based on the analysis of the provided project's Description of Work.

#### DELIVERABLES AND PUBLICATIONS

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DELIVERABLE NO.	DELIVERABLE NAME	DUE DATE OF DELIVERY (month)	ACTUAL SUBMISSION DATE: (month)
D101	Final report on content provision	9	18
D102	VNRs supporting stories	-	28
D201	Audiovisual productions	15	28
D301	Communication tool	15	28
D302	Final report on broadcasting & distribution	18	28
D401	Final report on monitoring & assessment	18	28
D402	Broadcasting examples	18	28
D403	Recommendations	18	28
D001	Project final report	18 + 2	-

#### MAIN SOURCES

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The eCORDA;  
CORDIS database;  
OPENAIRE database;  
NANO-TV CONSORTIUM (2008), Annex 1 - Description of Work.

## **ENHANCING PUBLIC AWARENESS ON THE RESULTS OF EUROPEAN RESEARCH ACTIONS ON CLIMATE FRIENDLY TRANSPORT SYSTEMS THROUGH THE PROFESSIONAL USE OF TELEVISION MEDIA - GREENTRANSPORT-TV**

**Framework Programme: FP7 related to SIS**  
**Action line/Part: -**  
**Activity: -**  
**Area: -**  
**Dimension: Civil Society and Citizen Participation**  
**Tool: Coordination and support action**  
**Project Call For Proposal: FP7-TPT-2008-RTD-1**  
**Status: Closed**  
**Total cost: € 822 865**  
**Total EU funding: € 691 910**  
**Website: -**  
**Period: 01/06/2009 - 30/11/2010**  
**Subjects: Environmental Protection - Social Aspects - Transport**  
**Project ID and Acronym: 234214 - GREENTRANSPORT-TV**

### **BACKGROUND AND CONTEXT OF THE PROJECT AND STRATEGIC NEEDS**

EU-funded research on Climate Friendly Transport Systems is an important European initiative, supporting the improved competitiveness of the European industry and involving all major European industries, as well as many SMEs, universities and other actors.

The general public is, however, largely unaware of EU-supported activities in this area and of the many benefits which may be derived from this research. The cause is often that the communication of facts, figures and results from European research is not always sufficiently appealing or easily comprehensible to the general public. In addition, information on research programmes provided by European institutions is often fragmented; the individuals involved are not experts in dissemination and communication activities, information is generally in a 'raw' state, and not suitable for media usage; and the difficult job of translating the technical content of the work into appealing messages for the TV media and the general public is not usually undertaken. Raising public awareness and addressing the above mentioned deficiencies can thus be seen as a priority for the Transport Theme.

### **SPECIFIC PROJECT OBJECTIVES**

#### **Project objectives**

The strategic objective of GREENTRANSPORT-TV was to contribute to the development of public awareness of European research on greening transport in all European countries through the professional use of television media.

In order to achieve its goals, the project had four objectives:

- **Objective 1:** to identify the key results to be transformed into information suitable for communication to the general public:
  - The Transport Theme was expected to be scanned in order to retrieve lists of projects, facts, locations, researchers and people suitable for filming and identify candidate individuals capable of communicating concepts to the general public.
  - Outputs were expected to be original, media-oriented statements about the research achievements.
- **Objective 2:** to take the results of project research and to create and produce 12 original TV-quality Video News Releases (VNRs) taking into account the diversity of European broadcasting identities.
- **Objective 3:** to guarantee access of project's VNRs to the TV media system in Europe and to reach a minimum number of 10 broadcasts for each of the 12 developed VNRs and to disseminate the VNRs through the web and the EC's and/or other relevant institutions' websites.
- **Objective 4:** to track all audiovisual and web distribution made by the project, measure it against a number of properly defined metrics and assess the overall impact of the project on the European media.

#### **Programme objectives**

The project aimed to contribute to the development of public awareness of European research on greening transport in all European countries through the professional use of television media. The objectives of GREENTRANSPORT-TV were thus consistent with the SiS objective of promoting a closer dialogue between scientists and media professionals, as a voice of society's expectations, concerns and interests.

### **Innovation Union Objectives**

Spreading the benefits of innovation across the Union is an objective of the Innovation Union. In that respect, GREENTRANSPORT-TV's purpose was consistent with the Innovation Union goals as it was aimed to develop public awareness on the European research on greening transport through the professional use of television media.

### **European Research Area Objectives**

Promoting access to scientific knowledge is an objective of ERA. In that respect, GREENTRANSPORT-TV's purpose is consistent with ERA goals as it was aimed to develop public awareness on the European research on greening transport through the professional use of television media.

### **SaS Action Plan**

By increasing transnational public awareness on greening transport through the use of television media, the project complied with the SaS Action Plan and in particular with Action 23, related to the inauguration of public discussions and hearings on specific themes. Web and TV distribution of material also encouraged European dialogue on "Sciences and Society", by promoting knowledge sharing between scientists and media professionals.

## **PROJECT RESULTS AND OUTCOMES**

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### **Main achievements according to Project objectives**

According to project documentation reviewed, GREENTRANSPORT-TV met and even exceeded expectations for each of the four objectives despite some delays:

- Concerning **objective 1**, a complete analysis of the DG RTD FP6 and FP7 non-aero transport projects was performed, leading to the selection of 12 projects identified for filming of VNRs and distribution to European TV stations.
- Concerning **objective 2**, filming was performed for the selected 12 projects through on-site visits. All video materials developed in the framework of the GREENTRANSPORT-TV project was an original product of the project. A total of about 180 minutes of video material was delivered to European TV stations and the Commission Services.
- Concerning **objective 3**, permanent relations were established with a number of European TV stations on the themes covered by GREENTRANSPORT-TV audio-visuals. GREENTRANSPORT-TV audio-visuals were also included in the distribution channels of DG RTD (AthenaWeb and other indexed resources). Finally, information about the audio-visuals produced was distributed targeting TV stations and productions were delivered to a subset of TV channels. However, Broadcasting & Distribution started quite late in the project and had to carry on for some months beyond the official project termination date to obtain adequate results in line with the expectations.
- Concerning **objective 4**, GREENTRANSPORT-TV videos were broadcast to an audience of several tens of million people through 177 registered individual TV take-ups and broadcasts. The videos were broadcast on national TV stations in 34 countries for an average of 16 broadcastings per video, which is higher than the target of the project (10 broadcastings per video). However, the monitoring process was activated later than expected and required additional refining to meet the objectives to final project report date.

According to the project report, despite some deviations particularly related to organization and timing that were observed during the project lifetime, the achievements of the reporting period correspond to the expected results.

### **Main achievements according to Programme objectives**

As stated in the project objectives section and confirmed by project deliverables, the GREENTRANSPORT-TV project results are in line with the SiS objective of promoting a closer dialogue between scientists and media professionals, as a voice of society's expectations, concerns and interests.

### **Main achievements according to SiS Dimensions**

The GREENTRANSPORT-TV project's results were in line with the Civil Society and Citizen Participation SiS dimension as they contribute to increase scientific awareness among the general public with the final aim of better science policy making.

A strong focus was observed with regards to dissemination activities and in particular the promotion of public awareness on the specific field of greening transport at the EU level. Nonetheless, the project did not directly contribute to a more inclusive involvement of civil society representatives.

## **DISSEMINATION AND ENGAGEMENT ACTIVITIES AIMED AT TRANSFERRING THE PROJECT RESULTS TO WIDER COMMUNITIES**

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National and regional TV stations in all 27 EU countries, engaged by the project through direct dissemination to their commissioning editors, journalists and partner production companies and via the EBU gateways in Geneva, were directly targeted by the project. Overall, the project team targeted:

- Direct communication between the contractor and the TV stations
- The Eurovision department of the European Broadcasting Union (EBU)
- On-line video services for TV media journalists
- Institutional communication channels managed by the European Commission

On the basis of the collected documents, it is not possible to detect any missing activity.

## **PROJECT IMPACTS**

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### **Potential impact of the project**

- The GREENTRANSPORT-TV project was expected to have an impact on the following:
  - **The public:**
    - Increasing their understanding of research and researchers' lives
    - Improving their vision of research and researchers
    - Learning more about mobility opportunities in Europe
    - Learning about the excellence of European research in climate friendly transport
  - **TV and media professionals:**
    - Publicising the European Research Area (ERA) and its actors to the media
    - Raising awareness on specific research themes
    - Enriching professionals' knowledge base about a given subject or issue
    - Enhancing their perception and their understanding of the European research
    - Providing them with new, original material suitable for broadcasting
    - Providing them with topical hooks for future own developments of TV programs
  - **On-line communities**
    - The stakeholders of the domain at large
    - The Commission Services
- **Betweenness centrality:** Among the five projects participants, ANSALDO STS was amongst the top 5% of organisations participating to the specific programmes "Cooperation" in FP7.
- **Scientific attractiveness:** No highly ranked universities participated in the project.
- **Business attractiveness:** No highly ranked R&D investors participated in the project.

**Actual impact** as resulting from the project documents and/or commented during the interviews with project coordinators. Impacts can be clustered into four types:

- **Scientific impact:** No publication produced during the project.
- **Institutional and organisational impact:** No impact on the institutions nor on the organisation was reported.
- **Policy impact:** GREENTRANSPORT-TV contributed to increase scientific awareness among European citizens with the final aim of better science policy making. The project also contributed to the new Commission's media policy, aiming at TV broadcasting as a privileged instrument to publicise science & research and inform citizens about European actions in these domains.

## **PATH-BREAKING ADVANCEMENTS**

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None.

## BEST PRACTICES

None.

## EU ADDED VALUE OF THE PROJECT

The Commission provided the project team with its knowledge and experience on European-funded projects as well as access to institutional communication channels.

## PARTICIPANTS AND RESEARCH TEAM

### Participants

Number of participants: 5

Number of countries involved: 4

	Type	Country	Role	Previous participations in FP
ICONS SRL	PRC	IT	Coordinator	6
GEDEON PROGRAMMES SA	PRC	FR	Participant	4
LEONARDO FILM GMBH	PRC	DE	Participant	4
ANSALDO STS S.p.A.	PRC	IT	Participant	23
PROPRS Ltd.	PRC	GB	Participant	3

### Team Composition

Team Size: 8 members

GENDER				
Female		Male		Unknown
38%		62%		0%
SENIORITY				
Average		Junior		Senior
12%		0%		88%
PhD				
No		Yes		
75%		25%		
BACKGROUND				
Applied Sciences	Health Sciences	Humanities & Social Sciences	Natural Sciences	Unknown
50%	13%	38%	0%	0%

\*The data are based on the analysis of the provided project's Description of Work.

## DELIVERABLES AND PUBLICATIONS

### Deliverables

DELIVERABLE NO.	DELIVERABLE NAME	DUE DATE OF DELIVERY (month)	ACTUAL SUBMISSION DATE: (month)
D101	Final Report on Content Provision	9	10
D201	Audiovisual Productions	15	18
D301	Communication tool	15	20
D302	Final Report on Broadcasting & Distribution	18	20
D401	Final Report on Monitoring & Assessment	18	20
D402	Broadcasting Examples	18	20
D403	Recommendations	18	20
D001	Project Final Report	18 + 2	20



**Related publications**

No publications were produced in this project.

***MAIN SOURCES***

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GREENTRANSPORT-TV Description of Work  
GREENTRANSPORT-TV Final Report

## **KNOWLEDGE BROKERAGE TO PROMOTE SUSTAINABLE FOOD CONSUMPTION AND PRODUCTION: LINKING SCIENTISTS, POLICYMAKERS AND CIVIL SOCIETY ORGANISATIONS "FOODLINKS"**

**Framework Programme: FP7 related to SIS**

**Area: ENV.2010.4.2.3-3 - Brokerage activities to promote sustainable consumption and production patterns**

**Dimension: CIVIL SOCIETY AND CITIZEN PARTICIPATION**

**Tool: Collaborative project**

**Project Call For Proposal: FP7-ENV-2010**

**Status: Closed**

**Total cost: € 1 879 736.40**

**Total EU funding: € 1 495 263.00**

**Website: <http://www.foodlinkscommunity.net>**

**Period: 01/01/2011 - 31/12/2013**

**Subjects: Environmental Protection**

**Project ID and Acronym: 265287, FOODLINKS**

### **BACKGROUND AND CONTEXT OF THE PROJECT AND STRATEGIC NEEDS**

Many of recent problems regarding sustainable development are related to today's patterns of food provision and consumption like for example fresh water shortage in dry zones, GHG and methane emissions, pollution of soil and water, decreasing biodiversity and urban waste. The Foodlinks project was initiated to support and monitor the development of three Communities of Practice (CoP) in the food production and consumption sector. In these communities of practice researchers, policy-makers, food producers and civil society and consumer organisations collaborated to shape shorter producer to consumer food chains, reassess public food procurement practices and urban food provision strategies. The general idea was that the involved parties in the Community of Practice (CoP) explore the issue at stake in order to reach a shared problem understanding and to consent potential solutions. The involved parties formulated a joint vision of a desirable future regarding sustainable food production and consumption and drafted a common strategy in the light of recent sectoral policy strategies. They explored the knowledge actually available regarding sustainable food production and consumption and its relevance for potential problem solutions. The process of collaboration and learning was supported by professionals in organisation research. They introduced different knowledge exchange and brokerage methodologies and activities and supported the three Communities of Practice (CoPs) in the project in implementing them. They also accompanied the CoPs in their continuous self-reflection process and monitored and evaluated the development and learning experiences within the CoPs and the Foodlinks project team as such.

### **SPECIFIC PROJECT OBJECTIVES**

The overall aim of the Foodlinks project was to develop and experiment with new integrative modes of linking transdisciplinary research to policy-making in the field of sustainable food production and consumption, thereby contributing to the implementation of new policy-relevant innovation networks among researchers, policy-makers and civil society organisations (CSOs) and by enhancing the use of comparative research and analysis insights in public policies to promote sustainable food production and consumption practices.

Five specific project objectives were defined in the Foodlinks project:

- To obtain first a sound overview and understanding of knowledge brokerage Activities (KBAs) that have proven to be effective/ or are expected to be potentially effective and second to assess which type of KBA could be best implemented to foster the interaction between researchers, policy-maker and civil society actors in order to enhance sustainable food production and consumption practices;
- To initiate three Communities of Practice (COPs) with the aim a) to identify particular research questions and needs of the parties involved, b) to select relevant KBAs methodologically sound to address these questions and needs, c) to experiment with the selected KBAs in the scope of a specific thematic 'brokerage cluster' challenge.
- To facilitate, monitor and evaluate the performance and usefulness of the implemented KBAs, to optimise the knowledge brokerage process in order to increase the quality of specific science-policy-society interactions, and to identify ways to enhance the (collective) learning process and knowledge transfer in the KBAs.
- To propose new modalities for enhancing the science-policy-society interaction in the sustainable food production and consumption sector as well as for other sustainable production and consumption areas.
- To disseminate results to a wide societal range of actors and organisations and to actively involve stakeholders to give feedback on the project activities and outcomes.

The Foodlinks project was funded under the **FP7-ENVIRONMENT - Specific Programme "Cooperation"**. The project was implemented as small or medium-scale focused research project CP-FP. Knowledge-brokering activities among researchers, policy-makers and civil society organisations were implemented "to learn how to work together" on issues regarding sustainable food provision and consumption. In the same year (2010) the FP7-SiS work programme called for topics on "Mobilisation and Mutual Learning Actions under the "First Action Line – A more dynamic governance of the science and society relationship". The aim was to "implement a more structured approach to mobilising key actors from research, civil society and government to collaborate in a deeper and more systematic way together on common science in society objectives". The FOODLINKS project serves as good practice example to show the horizontal integration of science and society issues in other thematic areas in Framework Programme 7.

The FOODLINKS project approach reflects objectives and actions of the **Science and Society Action Plan** – especially 2.1 Involving civil society actors. The aim of this part of the action plan is to bring together the general public, interest groups and policy-makers. This is exactly what the FOODLINKS project did in the field of sustainable food provision and consumption production. The FOODLINKS project objectives are as well reflected in the **European Research Area (ERA)** policy priorities regarding the priorities on "Optimal transnational co-operation and competition" and "Optimal circulation, access to and transfer of scientific knowledge in the digital European Research Area".

### **SaS Action Plan**

The FOODLINKS projects followed the Science and Society Action Plan, especially actions 19 to 23 under section 1.3. "Dialogue with citizens" and 2.1. "Involving civil society". Focused on internet and intranet presentation FOODLINKS presented research results to participants and in pieces to public. With the final conference and the FOODLINKS website the general public got access to all relevant information of the project.

By knowledge brokerage Activities (KBAs) and the creation of Communities of Practice (COPs) specific formats have been developed for sharing information and participation by connecting different kinds of stakeholder.

### **PROJECT RESULTS AND OUTCOMES**

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Project results and outcomes can be discussed both with respect to the topic on how to achieve more sustainable food provision and consumption and with respect on how to organise knowledge brokerage actions to successfully shape sustainable food provisioning. The knowledge brokerage approach foresees to reunite actors from different communities to build relationships that allow efficient exchange of knowledge and experience.

The knowledge brokerage activities in the FOODLINKS project evolved as a participatory and reflexive process and thus were highly depended on the knowledge and expertise of the actors involved. The "social construction" of knowledge is a mutual learning process that goes far beyond knowledge management. The promotion of social interaction and learning between researchers, policy-makers and civic organisations was the main aim of FOODLINKS.

Knowledge brokerage and mutual learning activities were organized in so called Communities of Practice (CoPs): three specific CoPs were set up referring to three differential dimensions: a CoP on shorter food supply chains, a CoP on alternative public food procurement practices and a CoP on urban food strategies. Each COP involved actors representing science and research, policy-making and civil society.

The project consortium devised a specific conceptual framework for knowledge brokerage, the SERA learning stages (Scoping, Envisioning, Research Exploration, Assessment). This concept was implemented in each CoP. Referring to the projects final report, the outcome of the informing and consenting activities among the stakeholders involved were successful. The following procedural issues are described as most relevant for this success:

- All CoPs had access to a virtual community via a web-platform (Knowledge Hub).
- All CoPs decided within the first year that a guide or action plan should be the result of the joint work, which gave orientation and motivated the stakeholders involved.
- Since the guide or action plans have been written jointly, they facilitated mutual understanding and learning among members with different backgrounds.
- The project team also considers the action plans produced in the CoPs as successful in supporting policy-makers to decide on issues related to the respective areas.
- Based on FOODLINKS project experiences CoPs can be expected to work successfully if they agree on a specific issue to be discussed and ensure mutual engagement and learning among the stakeholder involved.
- The success of knowledge brokerage activities depends on the diversity of the stakeholders involved. An actor-landscape mapping helps to identify participants.
- A facilitator and moderator, who engages participants in communication and gives orientation, is an essential element. This role can also rotate among CoP participants.
- On-line interaction options complement workshops and allow continued engagement.
- Incentives like , a fun factor' are crucial to keep communication on going.

In each COP a range of deliverables were jointly developed: a) policy documents, which summarise the state of knowledge consented among the actors involved, b) case studies for practical illustration c) comprehensive reports on workshops and webinars. Another important result of the FOODLINKS project was the implementation of a web-based knowledge exchange platforms (knowledge hub). During the project duration and beyond, this platform has been increasingly used not only by project participants, but many other stakeholders and experts.

### **Main achievements according to SiS Dimensions**

FOODLINKS has been relevant for developments in Participation. Through networking different stakeholder and developing strategies to keep communication between these up a continuing engagement is now potential in reach. By involving and informing civil society representatives in these networks a one-directional approach is evolving in a lasting and sustainable research area.

Furthermore the information exchange between the participants was intensified through the Communities of Practice (CoPs) and lived up from a national perspective of internal participation to an international level via the SERA learning stages.

### **DISSEMINATION AND ENGAGEMENT ACTIVITIES AIMED AT TRANSFERRING THE PROJECT RESULTS TO WIDER COMMUNITIES**

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In the first phase of the FOODLINKS project dissemination focused on presentation of the project at a website. A restricted access area was provided to project participants for online collaboration. To present the FOODLINKS project to relevant stakeholder groups, a fact sheet and brochure about the project was delivered.

In the second project phase the focus of the dissemination work package was to maintain and continuously update the website and to ensure the online platform working for the project partners and the increasing number of stakeholders and experts involved in the CoPs (knowledge hub). The dissemination plan was continuously updated.

At October 16. 2013, the final conference of the FOODLINKS project took place in Brussels. It was organised in a highly interactive way so that all participants could collectively exchange knowledge and reflect on their experience on sustainable food provision practices. In addition to the participants in the three CoPs, experts from outside the project consortium were invited to present their projects. Project advisory board members were involved as discussants in the working groups. The conference was documented by digital video that is still available on the project website. In order to summarise the project's results and communicate them to policy-makers a policy paper was delivered at the end of the project.

All three Communities of Practice (CoPs) decided within the first year to focus their approach on the production of a joint strategy and research agenda: in each CoP guidelines and action plans were developed. This gave orientation and fuelled the on-going engagement of the stakeholders and experts involved. It respected their interest to produce something tangible that contributes to succeeding more sustainable food provisioning systems.

In short, the following dissemination activities were organised:

- A functioning, informative and lively website has been created and continuously developed: [www.foodlinkscommunity.net](http://www.foodlinkscommunity.net).
- A fact sheet on the FOODLINKS project and brochure has been early produced;
- An intranet for online collaboration for project partners was implemented;
- Links to other relevant project websites have been introduced;
- Key document of the three CoPs have been published on the website;
- A newsletter was regularly published and disseminated;
- The website was launched and enlarged as Knowledge Hub for each of the CoPs;
- A working session has been organised at the XXV ESRS Congress to enlarge discussion of results with a broad scientific audience;
- A final project conference was organised and took place with around 90 participants;
- A video streaming of the final project conference was delivered and published on the website; a policy brief to address policy makers and administration was presented.

In summary, all of the foreseen dissemination activities were conducted and furthermore on-line interaction options for ongoing communication were developed.

### **PROJECT IMPACTS**

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The potential impact in terms of enablers regarding the dissemination of BIONET project results can be assessed in a medium range. Three of the fourteen partner organisations involved belong to the top 1% of the most central organisations in the European Framework Programme network (University of Pisa, University of

Wales, Wageningen University). Three further organisations (City of Malmö, City University and Forschungsinstitut für biologischen Landbau Stiftung) belong to the top 5%. Two of the participating organisations are in the Leiden Ranking. University of Pisa is on rank 461 and Wageningen University on rank 251. None of the higher education organisations involved is within the top 100 ranked in Europe.

The FOODNET project impacts can be distinguished into:

- **Scientific impact:** According to the project's final dissemination plan 8 scientific publications were published or are prepared for publication in the FOODLINKS project. But there is only one peer-reviewed scientific article listed: Co-Producing Sustainability: "Involving Parents and Civil Society in the Governance of School Meal Services. A Case Study from Pisa, Italy". (doi:10.3390/su6041643) This article was 5 times cited in other publications. At the European Open Access Portal as well the following research report was published: Aubree, P.; Brunori, G.; Dvortsin, L.; Galli, F.; Gromasheva, O.; Hoekstra, F.; Karner, S.; LUTZ, J; Piccon, L.; Prior, A: Short food supply chains as drivers of sustainable development. Laboratorio di studi rurali Sismondi 2013
- **Social media impact:** Social media analysis shows that in the period 01/01/2011 - 31/12/2015 only 12 posts referring to the FOODLINKS project can be counted.
- **Public Policy impact:** In the context of sustainable food provision and consumption and given the territorial specificity of sustainability, health and social equity challenges and governance arrangements for, it is most promising and effective to integrate the science to policy and civil society dialogue at the local and regional level. This can be done, for example, by local food councils that (co-) design and support implementation as well as monitor and evaluate urban food policy strategies. The CoPs that were central to the FOODLINKS project are a useful intermediary measure between local policy and civil society by organizing regional and local food councils to collect experiences and best practices. The FOODLINKS project contributed to the formation of the European FoodNet action (<http://foodnet.ning.com/>) as follow-up to FOODLINKS and other EU funded projects at the time. The FoodNet action is more generally addressing sustainable food provision and consumption in Europe and involving private sector stakeholder in addition to research, civil society and public policy actors into the network. FoodNet foresees to link up and create synergies with other relevant networks such as the International Urban Food Network (<http://www.iufn.org/en/>), FAO's Food for Cities net (<http://www.fao.org/fcit/fcit-home/en/>), the Resilient Cities network of the Local Governments for Sustainability network ICLEI (<http://resilient-cities.iclei.org/>) and the International Network of Resource Centres for Urban Agriculture and Food Security (<http://www.ruaf.org/>).

## **PATH-BREAKING ADVANCEMENTS**

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The FOODLINKS project approach is based upon a participatory knowledge creation and social learning process among researchers, public policy-makers and civil society organisations. Three Community of Practices (CoPs) were identified and considered to represent the three most relevant dimensions of a territorially integrated sustainable food geography. At its core, CoPs are about joint understanding and mutual learning. The FOODLINKS project showed that intensive and continuous interaction between researchers, policy-makers and civil society is of high importance to effectively reorganize supply systems towards sustainable food provisioning. Public policies designed to support sustainable, healthy and equitable modes of food provision and consumption can only be effective if they are knowledge and evidence based. This evidence can come from scientific research findings, but also from expert views or best practice illustrations. Civil society organisations take a stakeholder and expert role. The science to policy and civil society dialogue are equally important. The FOODLINKS project has been an important lesson and stepping stone for cooperation and networking among science, policy-making and civil society aimed at enhancing sustainable food provision systems.

## **BEST PRACTICE EXAMPLE**

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The Foodlinks project is a good practice example for the integration of science and society issues into other thematic areas of Framework Programme 7. The Communities of Practice approach has been put to test as particular mode for science to policy to society interaction with regards to sustainable food provision and consumption. Main actors in the FOODLINKS project are next to scientists and researchers civil society organisations; socio-ethical were prior to socio-economic considerations. In the later FOODNET network this was turning to a socio-economic priority. Private actors, e.g. from agro-industry, became broadly involved.

## **EU ADDED VALUE OF THE PROJECT**

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In the context of sustainable food provision and consumption and given the aforementioned territorial specificity of sustainability, health and social equity issues it is most promising to master the science to policy and civil society dialogue at the local and regional level, but to coordinate and integrate these initiatives by a transnational European approach. Food councils that (co-) design and support the implementation as well as monitor and evaluate urban food strategies or food procurement programs are operating at the regional and local level, but the FOODLINKS served to connect such initiatives at a European scale. The EU added value of FOODLINKS is its function for policy coordination and integration across Europe. The partners from different European member countries involved

brought in different perspectives. Thus, mutual learning and cooperation among the project partners and additional stakeholders and experts involved was strengthened.

## PARTICIPANTS AND RESEARCH TEAM

### Participants

Number of participants: 14

Number of countries involved: 9

	Type	Country	Role	Previous participations in FP
WAGENINGEN UNIVERSITY	HES	NL	Coordinator	253
CARDIFF UNIVERSITY	HES	GB	Participant	160
UNIVERSITA DI PISA	HES	IT	Participant	137
THE CITY UNIVERSITY	HES	GB	Participant	54
OBV-VIA CAMPESINA AUSTRIA - OSTERREICHISCHE BERG UND KLEINBAUERINNENVEREINIGUNG	OTH	AT	Participant	2
INTERDISZIPLINARES FORSCHUNGSZENTRUM FUR TECHNIK, ARBEIT UND KULTUR	REC	AT	Participant	5
FEDERATION REGIONALE DES CENTRES D'INITIATIVES POUR VALORISER L'AGRICULTURE ET LE MILIEU	REC	FR	Participant	3
SCOTTISH GOVERNMENT	PUB	GB	Participant	8
FORSCHUNGSINSTITUT FUR BIOLOGISCHENLANDBAU STIFTUNG	REC	CH	Participant	23
NEIKER-INSTITUTO VASCO DE INVESTIGACION Y DESARROLLO AGRARIO SA	REC	ES	Participant	6
Limburg Province	PUB	NL	Participant	1
MALMO STAD	PUB	SE	Participant	10
NODIBINAJUMS BALTIC STUDIES CENTRE	REC	LV	Participant	5
TUKUMA NOVADA DOME	PUB	LV	Participant	1

### Team Composition

Number of team members: 31

Team Size: members\*

GENDER				
Female		Male		Unknown
48%		45%		6%
SENIORITY				
Average		Junior		Senior
3%		6%		90%
PhD				
No		Yes		
42%		58%		
BACKGROUND				
Applied Sciences	Health Sciences	Humanities & Social Sciences		Natural Sciences
0%	13%	61%		3%
				10%

### Dimension averages

GENDER				
	Female		Male	
	41%		55%	
SAS	41%		55%	
SIS	48%		48%	
SENIORITY				
	Average		Junior	
			Senior	

Stock-taking and meta-analysis of Science in Society projects throughout FP6 and FP7  
Final Case Studies

SAS	5%	18%	77%		
SIS	8%	15%	77%		
<b>PhD</b>					
	No		Yes		
SAS	56%		44%		
SIS	52%		48%		
<b>BACKGROUND</b>					
	Applied Sciences	Health Sciences	Humanities & Social Sciences	Natural Sciences	Unknown
SAS	15%	16%	44%	12%	12%
SIS	13%	5%	60%	10%	12%

\*The data are based on the analysis of the provided project's Description of Work.

## DELIVERABLES AND PUBLICATIONS

### List of Deliverables:

DELIVERABLE NO.	DELIVERABLE NAME	DUE DATE OF DELIVERY (month)	ACTUAL SUBMISSION DATE: (month)
D1.1	Kick-off meeting		
D1.2	Minutes of General Assembly meeting 1		
D1.3	Minutes of General Assembly meeting 2		
D1.4	Minutes of General Assembly meeting 3		
D1.5	Periodic report 1		
D1.6	Mid-term review report		
D1.7	Minutes of General Assembly meeting 4		
D1.8	Minutes of General Assembly meeting 5		
D1.9	Minutes of General Assembly meeting 6		
D1.10	Periodic report 2		
D1.11	Final report		
D1.12	Final plan for the use and dissemination of foreground report on 'Awareness and Wider Societal Implications'		
D1.13	Final report CoP Urban food strategies		
D2.1	Synthesis report on the literature review		
D2.2	Methodological background workshop		
D2.3	Pool of tools and methods		
D3.1	Final report Communities of Practice (CoP) short producer to consumer (P2C) food chains		
D4.1	Final report CoP Re-valuing public sector food procurement		
D5.1	Final report CoP Urban food strategies		
D6.1	Evaluation report		
D7.1	Synthesis report on results from WP6		
D7.2	Reflection workshop		
D7.3	Recommendations for effective KB between researchers, policy makers, and CSOs		
D8.1	Project website ready to use		
D8.2	Project intranet ready to use		
D8.3	Communication Plan		
D8.4	Policy brief		
D8.5	Project conference		
D8.6	'Final' version of the project website with documentation about the conference		

### The following list of publications is available on the project's website:

- Knowledge Brokerage in Communities of Practice: Literature Review
- A Compilation of Tools and Methods for Knowledge Brokerage
- Knowledge Brokerage in Communities of Practice - Hands on recommendations

### In addition the following practice oriented reports have been published:

- Short Food Supply Chains as drivers of sustainable development. Evidence document
- Revaluing Public Sector Food Procurement in Europe: An Action Plan for Sustainability
- Urban Food Strategies. The Rough Guide to Sustainable Food Systems

#### **Related publications**

There is only one available publication listed: Co-Producing Sustainability: "Involving Parents and Civil Society in the Governance of School Meal Services. A Case Study from Pisa, Italy". The related number of citations is 5.

In the deliverable D1.12 "Final plan for the use and dissemination of foreground" 28 further articles were listed.

#### **MAIN SOURCES**

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Ecorda  
CORDIS database  
OPENAIRE database  
Project deliverables  
Project's description of work  
Project reports  
Project website



## **PRODUCING A SHARED VISION ON HOW TO HARNESS RESEARCH & DEVELOPMENT FOR SUSTAINABLE DEVELOPMENT - "VISION RD4SD"**

**Framework Programme:** FP7 related to SIS  
**Action line/Part:** -  
**Activity:** -  
**Area:** -  
**Dimension:** Civil Society and citizen participation  
**Tool:** Coordination and support action  
**Project Call For Proposal:** FP7-ENV-2010  
**Status:** Closed  
**Total cost:** € 1 267 863.66  
**Total EU funding:** € 984 188.86  
**Website:** <http://visionrd4sd.eu/> (website does not exist anymore)  
**Period:** 01/12/2010 - 30/11/2013  
**Subjects:** Environmental Protection  
**Project ID and Acronym:** ID: 265144, Acronym: VISION RD4SD

### **BACKGROUND AND CONTEXT OF THE PROJECT AND STRATEGIC NEEDS**

Europe has been funding research in Sustainable Development (SD) for more than 20 years. Research in SD has been administered like any other branch of science, though some researchers feel the topic warrants a new and more effective approach. Indeed, research in SD may need different administration compared to other sciences.

Research and Development for Sustainable Development (RD4SD) is not science as usual but science of a different type. It requires the broad participation of societal stakeholders, multi-, inter- and trans-disciplinary approaches as well as iterative research procedures. This provides opportunities for mutual learning and enables assumptions and positions to be revisited in the course of a programme, paving the way for a dynamic adjustment in the research process. The approaches of research management and design must integrate sustainability principles and objectives in each and every aspect of the research process. This also requires consideration of aspects such as knowledge management, communication and dissemination, and the handling of risk and uncertainty.

A framework is needed to structure information about the challenges that sustainability presents and on how well these challenges have been met so far.

### **SPECIFIC PROJECT OBJECTIVES**

The overall objective of VISION RD4SD project was to ensure that Europe is able to contribute to global sustainable development, by formulating policies and decisions based on robust and up-to-date knowledge of highest scientific quality.

To fulfil this global objective, the following specific objectives were identified:

- **Objective 1:** To develop a shared vision between science funding bodies, science administrations and national science policy advisory institutions in the European member states on how best to harness research and development for sustainable development;
- **Objective 2:** To develop a dialogue between the European science policy institutions to make exchange of ideas and experiences efficient and productive towards developing such a shared vision;
- **Objective 3:** To establish a catalogue presenting strategic goals and road maps that can be used by the science funding bodies and science policy institutions in the preparation of national strategies and action plans to be implemented in the member states;
- **Objective 4:** To draw conclusions and develop recommendations for the design of FP8 and the realisation of 2020 ERA Vision;
- **Objective 5:** to elaborate a state of art overview of past and ongoing research and development for sustainable development in the European Union, including actions taken by funding organisations to promote it.

### **SiS dimension**

The principal aim of the Civil society and Citizen Participation dimension of SiS was to establish more structured actions and ensure the participation of a critical mass among science, politics and civil society. Through devising a framework structuring information about the challenges induced by sustainability research, notably the challenge of a broader inclusion of societal stakeholders, VISION RD4SD matched the developments under the Civil society and citizen participation dimension.

### **Innovation Union**

VISION RD4SD objectives were in line with the Innovation Union's goals since it aimed to strengthen the knowledge base and reduce fragmentation. Indeed, the project aimed to develop a shared vision of research in sustainable development among the different European countries and produce an up-to-date knowledge of highest scientific quality.

#### **European Research Area (ERA) objectives**

As one of the main objectives of VISION RD4SD was to develop recommendations for 2020 ERA Vision, the ERA goals and those of VISION RD4SD were fully correlated. Moreover, the VISION project aimed to enforce knowledge-sharing notably between policy makers, researchers and industry in Europe, which is fully in line with the objectives of this coordinated action, as it sought the creation of a European research community.

#### **SaS Action Plan**

As described in the paragraph below, the project conducted several workshops, organised a final conference and drafted several case studies. The project was therefore in line with Action 20 of the SaS Action plan, focused on the organisation of local and regional dialogues on science and society.

### **PROJECT RESULTS AND OUTCOMES**

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#### **Main achievements according to Project objectives**

Since the Project Report was not collected at the stage of the evaluation, it is not possible to state whether all planned activities were implemented. However, The VISION RD4SD project achieved the following outputs:

- **Concerning objectives 1 and 2**, the consortium organised a series of workshops: Scoping 1 and 2, Visioning and Pathways 1, Roadmap 1, Pathways and Visioning 2 and Roadmap 2. A final conference was organised in Reykjavik where a wider group of policy makers, including several funding organisations outside Europe, were invited to give their views on the project outcomes.
- **Concerning objectives 3 and 4**, the report on the Vision and Principles on harnessing RD4SE was a central outcome of the project. The workshops identified a wealth of examples and international initiatives from which the consortium drew learning experiences on how to implement the RD4SD vision in various practical ways. An interactive online tool for everyday funding management was developed primarily for the target group of RD4SD funders and programme managers. It was designed as a knowledge exchange platform and contained examples and links to good practices in RD4SD programme development and funding procedures. The priority was to provide practical help for the further development of RD4SD funding.
- **Concerning objective 5**, the project established a broad knowledge base by means of national and regional case studies. Nine R&D case studies were conducted regarding established R&D funding and initiatives, research agenda setting, evaluation and community building. The consortium provided a knowledge platform for the workshops and to fuel the dialogue among research funders. Four additional studies were conducted: one focussing on Interface Organisations between research and science policy in Europe, one on evaluation, while another looked at the European Competence Centre for Research and development for sustainable development: "RD4SD Platform" as a possible continuation of the project; finally a study on possible Support Actions for RD4SD from the side of science funders, such as specific communication and/or trainings on successful scientific and project communication, transnational programme collaboration, outcome evaluation, support and capacity building, and research integrity.

#### **Main achievements according to SiS Dimensions**

VISION RD4SD project contributed to establishing more structured actions by providing an online interactive tool for everyday fund management. As it is an exchange platform it also promoted dialogue between RD4SD funders and programme managers. Furthermore, the several workshops organised by the consortium, where policy makers were invited, encouraged communication between science and policy-makers, as stated in the Civil Society and Citizens Participation dimension of SiS. For this reason, the project ensured a greater involvement of civil society representatives.

### **DISSEMINATION ENGAGEMENT ACTIVITIES AIMED AT TRANSFERRING THE PROJECT RESULTS TO WIDER COMMUNITIES**

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The following dissemination activities were carried out:

- Several workshops where all partners and observers were provided with a "dissemination kit" consisting of a set of the project's main documents in print and the complete collection of project documents on USB sticks;
- An interactive website with external and internal interfaces (which does not exist anymore);
- A leaflet presenting the VISION project and a VISION-folder;
- A Newsletter with around 300 subscribers at the end of the project;

- A final conference presenting the achievements of the project.

As the Project Report was not available, it is not possible to state whether all planned dissemination activities were implemented. The dissemination activity "Identifying perspectives for follow up and evaluation strategies" was planned in the DoW but nothing was mentioned with regards to it in the summary of the final report in the Cordis website.

## PROJECT IMPACTS

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### Potential impact

The potential impacts highlighted by the project consortium were:

- **Impacts on the policy makers taking part in the coordinated action:** as they were integrated to the process, policy-makers were supposed to develop their understanding of RS4SD and be much better prepared to put this knowledge into action.
- **Impacts on the European level in terms of establishing a common vision for sustainable development:** VISION was expected to help policy makers establish a common vision thanks to its research results and its dissemination.
- **Impacts on European scientists:** the project was supposed to help the researchers to formulate their objectives and hypothesis in a way that would contribute to sustainable development.

Potential impacts can be further assessed through the following indicators:

- **Betweenness centrality:** three institutions out of the twenty-five participating in the project were in the top 1% most central institutions in FP7. Eight were in the top 5% and fourteen in the top 10%.
- **Scientific attractiveness:** Only two institutions out of twenty-five were ranked in the Leiden university ranking: Maastricht University ranked 156<sup>th</sup>, and the University of Aveiro ranked 528<sup>th</sup>.
- **Business attractiveness:** No participants from VISION were ranked amongst the biggest R&D investors having participated in SIS. This can notably be explained by the fact that participants were mainly universities and research institutes.

### Actual impact

- **Scientific impact:** no publication related to the project could be found.
- **Institutional and organisational impact:** the consortium recommended the establishment of the European Competence Centre for Research and development for sustainable development: "RD4SD Platform" as a possible continuation of the project. If this idea is adopted, the VISION project will have a long term impact on research in sustainable development thanks to the creation of a new research organisation.
- **Policy impact:** through policy briefs, recommendations for the FP8 and the 2020 ERA Vision, as well as the involvement of policy-makers in workshops, the VISION project should foster better policy-making in the future. Nevertheless, no policy developments referring directly to the project could be identified.

## PATH-BREAKING ADVANCEMENTS

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None.

## BEST PRACTICES

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None.

## EU ADDED VALUE OF THE PROJECT

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Since implementing a shared vision of research and development for sustainable development in Europe and enhancing the dialogue between the different European science policy institutions were among the principal objectives of the VISION RD4SD, the project requires a European-wide implementation. Moreover the project aimed to draw conclusions and recommendations for the design of FP8 and 2020 ERA vision. Finally the diversity of the institutions involved in the project and their many nationalities enabled the consortium to gather a lot of information from many European countries, as it is noticeable in the different case studies.

## PARTICIPANTS AND RESEARCH TEAM

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### Participants

Number of participants: 25

Number of countries involved: 17

Stock-taking and meta-analysis of Science in Society projects throughout FP6 and FP7  
Final Case Studies

	Type	Country	Role	Previous participations in FP
FORSKNINGSRÅDET FÖR MILJÖ, AREELLA NÄRINGAR OCH SAMHÄLLSBYGGANDE	PUB	SE	Coordinator	21
DEUTSCHES ZENTRUM FUER LUFT - UND RAUMFAHRT EV	REC	DE	Participant	430
UNIVERSITEIT MAASTRICHT	HES	NL	Participant	150
SIHTASUTUS ARCHIMEDES	OTH	EE	Participant	27
UNIVERSIDADE DE AVEIRO	HES	PT	Participant	52
KAUNO TECHNOLOGIJOS UNIVERSITETAS	HES	LT	Participant	52
GENIKI GRAMMATIA EREVNAS KAI TECHNOLOGIAS	PUB	GR	Participant	27
BUNDESMINISTERIUM FUR WISSENSCHAFT UND FORSCHUNG BMWF	PUB	AT	Participant	13
SERVICE PUBLIC FEDERAL DE PROGRAMMATION POLITIQUE SCIENTIFIQUE	PUB	BE	Participant	22
TURKIYE BILIMSEL VE TEKNOLOJIK ARASTIRMA KURUMU	REC	TR	Participant	152
THE ICELANDIC CENTRE FOR RESEARCH	PUB	IS	Participant	48
OFFICE OF THE PRIME MINISTER	PUB	MT	Participant	29
MINISTERIO DE ECONOMIA Y COMPETITIVIDAD	PUB	ES	Participant	79
NATURVARDsverket	PUB	SE	Participant	4
UMWELTBUNDESAMT	REC	DE	Participant	5
LATVIJAS ZINATNU AKADEMIJA	REC	LV	Participant	25
CORILA - CONSORZIO PER IL COORDINAMENTO DELLE RICERCHE INERENTI AL SISTEMA LAGUNARE DI VENEZIA	REC	IT	Participant	4
FEDERAL DEPARTMENT FOR ENVIRONMENT TRANSPORTS ENERGY AND COMMUNICATION	PUB	CH	Participant	4
GROUNDSWELL RESEARCH ASSOCIATES LTD*	PRC	GB	Participant	1
UTE ZANDER	PRC	DE	Participant	1
PETER HELMUT MOLL	PRC	DE	Participant	1
JOAN DAVID TABARA VILLALBA	PRC	ES	Participant	2
BUNDESMINISTERIUM FUER UMWELT, NATURSCHUTZ UND REAKTORSICHERHEIT	PUB	DE	Participant	2
JAGER JILL	PRC	AT	Participant	2
MINISTERIE VAN INFRASTRUCTUUR EN MILIEU	PUB	NL	Participant	27

### Team Composition

Team Size: 42 members\*

GENDER		
Female	Male	Unknown
57%	33%	7%

  

SENIORITY
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Stock-taking and meta-analysis of Science in Society projects throughout FP6 and FP7  
Final Case Studies

Average		Junior		Senior	
0%		24%		76%	
PhD					
No			Yes		
57%			43%		
BACKGROUND					
Applied Sciences	Health Sciences	Humanities & Social Sciences		Natural Sciences	Unknown
0%	0%	38%		57%	5%

**Dimension averages: Civil Society and Citizen Participation**

GENDER							
		Female		Male		Unknown	
SAS		41%		55%		4%	
SIS		48%		48%		4%	
SENIORITY							
		Average		Junior		Senior	
SAS		5%		18%		77%	
SIS		8%		15%		77%	
PhD							
		No			Yes		
SAS		56%			44%		
SIS		52%			48%		
BACKGROUND							
	Applied Sciences	Health Sciences	Humanities & Social Sciences		Natural Sciences	Unknown	
SAS	15%	16%	44%		12%	12%	
SIS	13%	5%	60%		10%	12%	

\*The data are based on the analysis of the provided project's Description of Work.

**DELIVERABLES AND PUBLICATIONS**

**Project deliverables**

DELIVERABLE NO.	DELIVERABLE NAME	DUE DATE OF DELIVERY (month)	ACTUAL SUBMISSION DATE: (month)
D1.1	Periodic report	18	-
D1.2	Periodic report	36	-
D1.3	Final report	36	-
D2.1	Report on state of the art studies: UK, NL, S, CH, F, D, South Europe, Eastern Europe, EU	12	12
D2.2	Ad hoc studies	24	35
D2.3	Briefing sheet with results from WP 2	36	35
D3.1	Draft of the shared vision on how to harness RD4SD	15	15
D3.2	Final version of the shared vision on how to harness RD4SD	33	30
D3.3	Briefing sheet with results from WP 3	36	36
D4.1	Recommendations for the improvement and better integration of RD4SD in FP8	20	-
D4.2	Recommendations for the realization of the 2020 Vision for the European Research Area	36	36
D4.3	A road map / strategies for the future reform process of harnessing RD4SD in Europe	36	36
D4.4	Briefing sheet with results from WP 4	36	36
D5.1	Draft of the shared vision on how to harness RD4SD	15	15
D5.2	Final version of the shared vision on how to harness RD4SD	33	30
D5.3	Policy brief synthesizing the results	36	36

Stock-taking and meta-analysis of Science in Society projects throughout FP6 and FP7  
Final Case Studies

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<i>DELIVERABLE NO.</i>	<i>DELIVERABLE NAME</i>	<i>DUE DATE OF DELIVERY (month)</i>	<i>ACTUAL SUBMISSION DATE: (month)</i>
<i>D6.1</i>	<i>Overall dissemination plan for VISION RD4SD</i>	<i>6</i>	<i>-</i>
<i>D6.2</i>	<i>Address data base of target groups</i>	<i>6</i>	<i>-</i>
<i>D6.3</i>	<i>Internal workspace(s)</i>	<i>6</i>	<i>-</i>
<i>D6.4</i>	<i>Website</i>	<i>9</i>	<i>-</i>
<i>D6.5</i>	<i>Edited State of the art reports</i>	<i>15</i>	<i>16</i>
<i>D6.6</i>	<i>Edited shared vision on how to harness RD4SD</i>	<i>33</i>	<i>30</i>
<i>D6.7</i>	<i>Edited briefing sheets with results from WPs 2,3 and 4</i>	<i>36</i>	<i>36</i>
<i>D6.8</i>	<i>Edited policy brief synthesizing the final results</i>	<i>36</i>	<i>36</i>
<i>D6.9</i>	<i>PR for the final conference</i>	<i>36</i>	<i>-</i>
<i>D6.10</i>	<i>Strategy for monitoring long-term impact from VISION RD4SD on European and national funding</i>	<i>36</i>	<i>36</i>

**Related publications**

No publication were mentioned in the VISION documentation.

**MAIN SOURCES**

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VISION RD4SD Description Of Work

VISION RD4SD Result In Brief

VISION RD4SD Final Report Summary

## **INCREASING THE ENGAGEMENT OF CIVIL SOCIETY IN SECURITY RESEARCH - "SECUREPART"**

**Framework Programme: FP7 related to SIS**  
**Action line/Part: -**  
**Activity: -**  
**Area: -**  
**Dimension: Civil Society and Citizen Participation**  
**Tool: Coordination and support action**  
**Project Call For Proposal: FP7-SEC-2013-1**  
**Status: Closed**  
**Total cost: € 966.039,50**  
**Total EU funding: € 889.888,00**  
**Website: <http://www.securepart.eu/en/>**  
**Period: 01/05/2014 - 30/04/2016**  
**Subjects: Safety**  
**Project ID and Acronym: ID: 608039, Acronym: SECUREPART**

### **BACKGROUND AND CONTEXT OF THE PROJECT AND STRATEGIC NEEDS**

Public concern is growing about a range of new security technologies such as biometric IDs, risk profiling and the use of surveillance drones. With these and other technologies, what is at stake goes far beyond privacy and data protection to core questions around the feasibility, legitimacy and desirability of maximum security societies. If ethics and societal impacts are to be properly addressed in current and future EU security research programmes, a fundamental appraisal is required.

To do so, multilateral co-operation and coordination among key stakeholders appears essential. More precisely, civil society needs to be involved to ensure the engagement of citizens in the interests of achieving security objectives.

### **SPECIFIC PROJECT OBJECTIVES**

The SecurePART project aimed at promoting inclusive multi-party dialogue and enhancing the influence of civil society in formulating, monitoring, and implementing current and future security research conducted in the EU.

The main strategic objectives of the project were:

- To understand the status quo about CSO participation;
- To help CSOs to cope with the increasing complexity of security research;
- To support the internal structure of CSOs and promote collaboration among them and with other relevant stakeholders;
- To define a strategy and produce an action plan with action steps on how to increase CSO participation in both shaping and implementing security research results.

### **SiS dimension**

One of the purposes of the SiS Civil Society and Citizen Participation dimension lay in creating a more bilateral exchange between science and society so as to reconcile the growing expectations in the science world on the one hand, and the increasing scepticism of society towards scientific advances on the other. The objectives of SecurePART were in line with these dimension objectives as they aimed to promote inclusive multi-party dialogue and enhance the influence of civil society in formulating, monitoring, and implementing current and future security research conducted in the EU.

### **Innovation Union:**

By trying to rekindle the contribution of CSOs to security research and policy so as to ensure that new developments in the sector meet societal needs, the objectives of SecurePART appear consistent with the Innovation Union objective of maximising social and territorial cohesion, as well as that of reforming research and innovation systems in Europe.

### **European Research Area (ERA) objectives:**

The project's objective of fostering CSO participation in formulating, monitoring and implementing security research in the EU is in line with the ERA objectives of developing more effective national research systems and of promoting an optimal circulation, access to and transfer of scientific knowledge to all.

### **SaS Action Plan**

On the basis of the collected information it is not possible to assess whether the project was in line with specific actions of the SaS Action Plan.

## PROJECT RESULTS AND OUTCOMES

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### Main achievements according to Project objectives:

The full list of results achieved by the SecurePART project cannot be detailed as the final report was not made available yet. At the stage of the first periodic report, the project had achieved the following outputs:

- Concerning objective 1, **the consortium analysed current levels of CSO involvement in FP7**: a desk-based research of CSOs involvement was conducted based on the six different roles they can play: policy observers, project evaluators, programme agenda influencers, performers of projects, commissioners of research and disseminators. A quantitative and qualitative SWOT analysis was carried out.
- Concerning objective 2, **the consortium drew experience from other technology fields**: best practices were analysed not only in the Security Sector but also in other sectors having a similar problem of acceptance by society, such as chemical technology, nanoscience, environment, energy or health.
- Concerning objective 3, **the consortium carried out a societal & CSO analysis**: A report of the intra-, inter- and trans- CSO status and interactions in security research was drafted. Furthermore, a **communication plan** about potential benefits of security research benefits was developed: communication practices carried out by CSOs at European and international level were evaluated. Those deemed particularly relevant were selected as good practices and inspired the design of the communication plan. A set of communication actions were supposed to be implemented in order to stimulate their interest and participation in security research dialogue and engagement.
- Concerning objective 4, **the consortium designed a strategy to increase CSO participation, and an action plan**: this work has been started with planning and implementation of the multi-stakeholder Future Workshop taking place in Berlin in September.

### Main achievements according to SiS Dimensions

On the basis of the collected information (i.e. the interviews report), interviews with CSOs, other stakeholders and experts were carried out. This task showed the attempt to go beyond the simple dissemination of results and contributed to a more inclusive involvement of civil society representatives.

By investigating the reasons for low civil society participation and developing a strategy and action plan to increase civil society participation in security research, the first results achieved by the SecurePART project were in line with the SiS Civil Society and Citizen Participation objectives of reconciling research and citizens.

## DISSEMINATION AND ENGAGEMENT ACTIVITIES AIMED AT TRANSFERRING THE PROJECT RESULTS TO WIDER COMMUNITIES

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The communication plan adopted, was based on a strategy using different dissemination channels:

- The **project website** where figures the content of SecurePART project, events, results, press release and publication;
- **Videos**;
- **Social Media**: Youtube, LinkdIn, Facebook and Twitter;
- A **newsletter**;
- A **blog**;
- **Events**: conferences, meetings, events, workshops and trainings organised by SecurePART or its partners.

As the Final Report was not available, it is not possible to state whether all planned dissemination activities were performed.

## PROJECT IMPACTS

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### Potential impact

The SecurePART project had the following expected impacts:

- Strengthen links and integration between cross-cutting areas across security modes and research communities
- Ensure the security of citizens against terrorism, natural disasters and crime while respecting fundamental rights including the protection of personal data
- Improve the competitiveness of the European security industry and identify opportunities as well as constraints to develop a European security-related market.



- Achieve a greater involvement of civil society organisations in EU security research

Potential impacts can be further assessed through the following indicators:

- **Betweenness centrality:** out of the seven project participants, two were part of the 5% most central institutions to participate in FP7 projects.
- **Scientific attractiveness:** No participants from SecurePART were mentioned in the Leiden University ranking. This result can be explained by the fact that only one university took part in the project.
- **Business attractiveness:** No participants from SecurePART were ranked amongst the biggest R&D investors having participated in SIS projects.

### Actual impact

Assessing the actual impacts of the SecurePART project appears difficult at this stage as only the First periodic report was made available so far. Based on the available documentation, the project's actual impact can be clustered into the following categories:

- **Scientific impact:** no publications related to the project could be found
- **Social Media impacts:** between 1 May 2014 and 4 March 2016, a total of 250 posts referring to SecurePART were found on social media, 96% of which were posted on Twitter. Although limited to twitter users, such figures suggest a strong visibility of the project, an even more significant result as the purpose of the project was to include civil society organisations in shaping security-related research and policies.
- **Institutional and organisational impact:** no institutional nor organizational impact could be identified at this stage.
- **Policy impact:** Seven policy briefs were drafted and made available on the project's website. However no mention of policies as a result of these could be found at this stage.

### PATH-BREAKING ADVANCEMENTS

None.

### BEST PRACTICES

None.

### EU ADDED VALUE OF THE PROJECT

Conducting the project through an EU Framework Programme enabled the organisation of larger-scale policy dialogues and the inclusion of relevant stakeholders from different EU Member States (Spain, Germany, Belgium, United Kingdom and Portugal) with a different vision and understanding of the subject. This diversity was necessary as the project aimed to find solutions to a problem deemed universal, therefore requiring universal investigations and solutions, which would not have been achieved in a national programme.

### PARTICIPANTS AND RESEARCH TEAM

#### Participants

Number of participants: 7

Number of countries involved: 5

	Type	Country	Role	Previous participations in FP
Bantec consultores iniciativas emprendedoras SL	PRC	ES	Coordinator	2
Johann wolfgang goethe universitaet frankfurt AM MAIN	HES	DE	Participant	114
The university of salford	HES	GB	Participant	22
Nexus institut fur kooperations management und interdisziplinare forschung GMBH	PRC	DE	Participant	2
Mr. Juergen K. von der Lippe and Dr. Jean Cornier	PRC	DE	Participant	2
Globaz, S.A.	PRC	PT	Participant	3

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	Type	Country	Role	Previous participations in FP
European network of national civil society associations	OTH	BE	Participant	1

### Team Composition

Team Size: 12 members

GENDER				
Female		Male		Unknown
4 (33%)		8 (67%)		0
SENIORITY				
Average		Junior		Senior
0		3 (25%)		9 (75%)
PhD				
No			Yes	
8 (67%)			4 (33%)	
BACKGROUND				
Applied Sciences	Health Sciences	Humanities & Social Sciences	Natural Sciences	Unknown
2 (17%)	1 (8%)	7 (58%)	0	2 (17%)

### Dimension averages

GENDER					
	Female		Male		Unknown
SAS	41%		55%		4%
SIS	48%		48%		4%
SENIORITY					
	Average		Junior		Senior
SAS	5%		18%		77%
SIS	8%		15%		77%
PhD					
	No			Yes	
SAS	56%			44%	
SIS	52%			48%	
BACKGROUND					
	Applied Sciences	Health Sciences	Humanities & Social Sciences	Natural Sciences	Unknown
SAS	15%	16%	44%	12%	12%
SIS	13%	5%	60%	10%	12%

\*The data are based on the analysis of the provided project's Description of Work.

## DELIVERABLES AND PUBLICATIONS

### Project deliverables

DELIVERABLE NO.	DELIVERABLE NAME	DUE DATE OF DELIVERY (month)	ACTUAL SUBMISSION DATE: (month)
D1.1	Criteria & indicators list	2	5
D1.2	Background Report	4	12
D1.3	Operational IT database	2	7
D1.4	List of 50 interviews	3	17
D1.5	Interviews report	9	17
D1.6	Six case studies	10	12

DELIVERABLE NO.	DELIVERABLE NAME	DUE DATE OF DELIVERY (month)	ACTUAL SUBMISSION DATE: (month)
D1.7	Statistical analysis report	10	17
D1.8	SWOT analysis report	10	12
D1.9	Interview guide	2	7
D1.10	Conclusions report	10	12
D2.1	Report on Technology Fields selection	3	6
D2.2	Stakeholders Board Minutes (first meeting)	6	10
D2.3	Report on selected method and application scenario to the security research field	12	12
D2.4	Stakeholders Board Minutes (2nd meeting)	16	17
D2.5	Stakeholders Board Minutes (3rd meeting)	18	17
D2.6	Workshop report	11	17
D2.7	Recommendations report for WP5 input	12	17
D2.8	Stakeholders Board Constitution Report	3	3
D3.1	Report on CSOs internal capacities	10	12
D3.2	Report on the collaborative links among CSOs	10	12
D3.3	Matrix of CSOs and other stakeholders' perception and expectations	10	17
D4.1	Communication strategy report	8	17
D4.2	Communication materials	12	18
D4.3	Communication Plan	12	17
D4.4	Summary of the communication actions carried out	24	-
D5.1	Plan for rules of participation of CSOs	15	-
D5.2	Map of stakeholders ranking of values and objectives	20	-
D5.3	Recommendation on permanent institutional set-ups for CSO engagement in Security Research	24	-
D5.4	Foresight Report of CSO participation in Security Research	24	-
D6.1	Project visual identity	2	3
D6.2	Creation and maintenance of project web-site	3	17
D6.3	Newsletters	24	-
D6.4	Report about participation at conferences	24	-
D6.5	Report about participation at special meeting/ workshops/ events	24	-
D6.6	Production and distribution of press release	24	-
D6.7	Executive summary of the project's final report	24	-
D6.8	Exploitation plan	24	-
D7.1	Inception report	2	3
D7.2	Monthly conference call minutes	24	-
D7.3	Quality plan	2	2
D7.4	Quality implementation report	20	-

### Related publications

No publications were mentioned in the PIER documentation.

### MAIN SOURCES

SECUREPART Description of Work

SECUREPART First Periodic Report Summary

SECUREPART Website

SECUREPART Communication Plan (Deliverable 4.3)

## **DEVELOPING INNOVATIVE OUTREACH AND DIALOGUE ON RESPONSIBLE NANOTECHNOLOGIES IN EU CIVIL SOCIETY - "NANODIODE"**

**Framework Programme:** FP7 related to SIS  
**Action line/Part:** -  
**Activity:** -  
**Area:** -  
**Dimension:** Civil Society and Citizen Participation  
**Tool:** Coordination and support action  
**Project Call For Proposal:** FP7-NMP-2013-CSA-7  
**Status:** Closed  
**Total cost:** € 2 410 012.61  
**Total EU funding:** € 1 899 842.00  
**Website:** [www.nanodiode.eu](http://www.nanodiode.eu)  
**Period:** 01/07/2013 - 30/06/2016  
**Subjects:** Scientific Research  
**Project ID and Acronym:** ID: 608891, Acronym: NANODIODE

### **BACKGROUND AND CONTEXT OF THE PROJECT AND STRATEGIC NEEDS**

Nanotechnologies hold significant potential for novel applications in industrial and consumer technologies. However, they are not without challenges and can therefore trigger concerns, explaining why citizens and policymakers can be apprehensive. As a consequence, fostering stakeholder engagement and dialogue appears as essential for a responsible development of nanotechnologies capable of benefitting society as a whole.

### **SPECIFIC PROJECT OBJECTIVES**

The purpose of the NanoDiode project was to encourage engagement with citizens and stakeholders to attune technological developments to societal needs and values.

The specific objectives of NanoDiode were to:

- **Develop new strategies for outreach and dialogue along nanotechnology value chains** (WP 1), based on a thorough analysis of current European information and communication needs, the result of previous experiences and European projects on these issues;
- **INSPIRE: Organise engagement and dialogue at the 'upstream' level of research policy** (WP 2) determining European citizens' views on priorities for nanotechnology innovation, organizing school kids' and students' competitions on innovative ideas for nanotechnology products of the future and holding a series of multi-stakeholders dialogues to determine how nanotechnologies can address important societal and ethical challenges and identifying desired fields of innovation;
- **CREATE: Enable processes of co-creation during research and innovation** (WP 3) developing and carrying out "3<sup>rd</sup> generation deliberative processes", establishing "User Committees" and enabling an innovative process of "supporting responsible research";
- **EDUCATE: Professionalise nanotechnology education and training** (WP 4) developing a robust education strategy and action plan, carrying a series of education activities focusing on secondary education, establishing a multidisciplinary "community of practice" by bringing together experts and trade unionists and creating a "living" workers-oriented capacity building module for health and safety governance of nanotechnologies at the workplace;
- **ENGAGE: Establish a coherent programme for outreach and communication on nanotechnologies** (WP 5) developing and assessing innovative outreach and communication activities for nanotechnologies, implementing and testing these activities, including a series of Guerilla stores and video clips on nanotechnologies and disseminating the findings and results of the project;
- **Assess the impact of the project's activities, establish links between the various levels of governance, and provide policy feedback with a view to Horizon 2020** (WP 6) evaluating and assessing the impact of each of the project's activities, establishing cross-links and feedback loops between the activities within the different work packages and ensuring continuity beyond the project's end date and providing a policy feedback.

### **SiS dimension:**

One of the purposes of the SiS Civil Society and Citizen Participation dimension lay in creating a more bilateral exchange between science and society so as to reconcile the growing expectations in the science world on the one hand, and the increasing scepticism of society towards scientific advances on the other. The NANODIODE project was

in line with these objectives as it aimed to encourage interactions with citizens and other stakeholders to attune nanotechnology developments to societal needs and values.

#### **Innovation Union:**

Strengthening the knowledge base of society is one of the Innovation Union objectives. The objectives of the NANODIODE project were therefore consistent with the Innovation Union through the goals of inspiring, educating and engaging civil society in nanotechnology developments.

#### **European Research Area (ERA) objectives:**

Through the objectives of developing strategies for outreach and dialogue along nanotechnology value chains, organising engagement and dialogue at the upstream level of research policy, and professionalising nanotechnology education and training, the NANODIODE project was in line with the ERA objective of guaranteeing access to and uptake of knowledge by all.

#### **SaS Action Plan**

Through the organization of workshops, surveys, formal and informal expert interviews and through development of strategies for outreach and dialogue along nanotechnology the project contributed to Action 20 of the Action Plan relating to the organisation of dialogues and Action 23 of the SaS Action Plan concerning the inauguration of public discussions.

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### **PROJECT RESULTS AND OUTCOMES**

#### **Main achievements according to Project objectives**

The full list of results achieved by the NANODIODE project cannot be detailed as the final report was not made available yet. At the stage of the first periodic report, the project had achieved the following outputs:

- **WP1:** previous engagement projects were analysed, resulting in a public report on best practices for outreach and dialogue. Action plans were developed, specifying objectives for engagement, strategies for dialogue, a planning of activities and criteria for process evaluation.
- **WP2:** a survey was conducted and involved approximately 1.500 Europeans, while 60 in-depth interviews in six EU-countries deepened and reasoned the survey results. The results were published in November 2014. Moreover the school kids' and students' competition for innovative ideas was opened and disseminated through teachers' networks across Europe. The submitted ideas were judged by a public NanoDiode website through a voting system and a jury. Eventually the citizen and multi-stakeholder dialogues were initiated in Stuttgart, Germany and will get a follow-up in five further NanoDiode partner countries.
- **WP3:** the project enabled to engage citizens, CSOs and professional end-users in the development of nanosciences and technologies, exploring ways to involve them in the steering of R&I and to foster responsiveness, like the NanoDiode User Committees
- **WP4:** Partners evaluated previous and ongoing educational activities on national, EU and international level and identified "best practices" for nanotech-education. NanoDiode established close collaboration with experts from NanoEIS and NanOpinion to share relevant experiences and "best practices" materials. The results represented a basis for the educational workshops (held in 2015) with teachers, students and schools. A Community of Practice was established with representatives from toxicology, social science, trade unions, science and communications.
- **WP5:** the project participants selected, developed and tested six nanotech outreach activities: NanoBazaar, NanoTubes, NanoGallery, NanoSlams, Student Journalists Competition, NanoTrivia. The project was branded and a website and social media accounts were created and actively used. A plan was made for disseminating project findings.
- Preparatory activities for **WP6** have started. These include reflection on the work done in NanoDiode, exact formulation of the projects' aimed achievements and expected impacts; identification and optimization of impact assessment criteria and exploring of topics for policy feedback.

#### **Main achievements according to SiS Dimensions**

Through the development of action plans specifying objectives for engagement and strategies for dialogue, the identification of best practices for nanotech-education, the organisation of educational workshops, and the development of nanotech outreach activities, the results of the NANODIODE project were consistent with the objectives of the SiS Civil Society and Citizen Participation objective of reconciling societal and technological developments. The development of action plans and the organisation of educational workshops marked the transition from a passive science-to-society transmission model to a reciprocal multi actor-transaction model.

## DISSEMINATION AND ENGAGEMENT ACTIVITIES AIMED AT TRANSFERRING THE PROJECT RESULTS TO WIDER COMMUNITIES

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The principal dissemination channels adopted were:

- The project **website**, where various reports, surveys, interviews and fact sheets are available;
- **Social Media**: Facebook, Youtube, LinkedIn, Google+ and Twitter;
- **NanoBazzars**: a pop-up initiative located in the centre of European cities (Wroclaw in Poland, Graz in Austria and Leuven in Belgium) where visitors could see real and imaginary products and give their opinion on these products;
- 35 **NanoTube interviews** have been conducted. Interviewees have come from 5 different countries (The Netherlands; Poland; Austria; Italy; and Finland), and a wide variety of backgrounds. These have been to date collectively viewed 2,900 times.
- The **NanoGallery** has been created and is currently being exhibited around Europe.
- **Nanoslams** in Spain and in Germany: informal talks where research activities on nanotechnology were presented in front of a non-expert audience;
- **NanoTrivia**: A set of 16 questions and answers have been developed in collaboration with the project consortium. The questions are now set to be confirmed and printed in order to make the physical version of the cards, and the questions will be asked through the project's social media channels. The reaction of the public is set to be monitored, and the impact of the activity assessed;
- **Nanodiode User Committees**;
- **The School kids' and students' competition for innovative ideas**;
- **Workshops**;
- **Newsletters**.

The project report is missing at this stage. Therefore, it is not possible to state whether all planned dissemination activities were implemented.

## PROJECT IMPACTS

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### Potential impact

The NANODIODE project had the following expected impact:

- Enhancing levels of engagement of European citizens
- Developing innovative, publishable materials to serve as a model
- Increasing the clarity of the role of public authorities, industry and society, with the aim to foster upstream involvement of citizens.

The project's potential impact can be further assessed through the following indicators:

- **Betweenness centrality**: Out of the 14 project participants, 3 were ranked among the 1% most central institutions in FP7.
- **Scientific attractiveness**: Only one project participant (the University of Stuttgart) was mentioned in the Leiden University ranking. It ranked 90<sup>th</sup>.
- **Business attractiveness**: No participants were ranked as being part of the biggest R&D investors among SiS participants.

### Actual impact

As only the First periodic report summary was made available, it is difficult to assess the actual impacts of the project. Based on the available documentation, the project's actual impact can be clustered into the following categories:

- **Scientific impact**: no publication related to the project could be found.
- **Institutional and organisational impact**: no institutional nor organisational impact could be identified at this stage
- **Policy impact**: no policy impact could be identified at this stage. The interviewee mentioned that projects have raised awareness among researchers but this has impacted practices only to a limited extent because of a low inter-disciplinary participation.

## PATH-BREAKING ADVANCEMENTS

The interviewee suggested the possibility to further develop the ESIC (exploitation, strategy and innovation) consultancy service, by integrating social service expertise and making it hireable for consortia when needed.

## BEST PRACTICES

None.

## EU ADDED VALUE OF THE PROJECT

Thanks to its European framework, the consortium brought together partners from various backgrounds across Europe representing technological and social research, industry, policy, civil society, education and media. Many partners brought their experience as coordinators or participants in earlier European projects within the NMP programme as well as from Science in Society. This allowed the project to look back and identify best practices based on existing experience, and to make use of products and tools that have proven to be successful. If the project had been nationally funded, such a diversity in profiles and expertise could not have been gathered, therefore limiting the scope of the project's results and impacts.

It moreover expanded the project's scope and visibility as many activities occurred in different European cities.

## PARTICIPANTS AND RESEARCH TEAM

### Participants

Number of participants: 14

Number of countries involved: 9

	Type	Country	Role	Previous participations in FP
<i>Ivam uva</i>	PRC	NL	Coordinator	3
<i>Commissariat à l'énergie atomique et aux énergies alternatives</i>	REC	FR	Participant	745
<i>Universitaet stuttgart</i>	HES	DE	Participant	233
<i>Inserm - transfert SA</i>	OTH	FR	Participant	46
<i>Associazione italiana per la ricerca industriale - AIRI</i>	OTH	IT	Participant	6
<i>Statens institutt for forbruksforskning</i>	REC	NO	Participant	6
<i>Institut syndical européen</i>	REC	BE	Participant	4
<i>Nanotechnology industries association</i>	OTH	GB	Participant	4
<i>L'union européenne des associations de journalistes scientifiques association</i>	OTH	FR	Participant	4
<i>Nanofutures asbl</i>	OTH	BE	Participant	6
<i>Bionanonet forschungsgesellschaft mbh</i>	REC	AT	Participant	3
<i>De proeffabriek</i>	PRC	NL	Participant	1
<i>Van den bergh johanna jacobae</i>	PRC	NL	Participant	1
<i>Fundacja wspierania nanonauk i nanotechnologii - nanonet</i>	OTH	PL	Participant	1

### Team Composition

Team Size: 30 members

GENDER		
Female	Male	Unknown
12 (40%)	17 (57%)	1 (3%)
SENIORITY		
Average	Junior	Senior

Stock-taking and meta-analysis of Science in Society projects throughout FP6 and FP7  
Final Case Studies

1 (3%)		1 (3%)		28 (93%)	
<b>PhD</b>					
No			Yes		
9 (30%)			21 (70%)		
<b>BACKGROUND</b>					
Applied Sciences	Health Sciences	Humanities & Social Sciences	Natural Sciences	Unknown	
20 (67%)	0	9 (30%)	1 (3%)	0	

*Dimension averages*

<b>GENDER</b>					
Female		Male		Unknown	
SAS	41%	55%	4%		
SIS	48%	48%	4%		
<b>SENIORITY</b>					
Average		Junior		Senior	
SAS	5%	18%	77%		
SIS	8%	15%	77%		
<b>PhD</b>					
No			Yes		
SAS	56%		44%		
SIS	52%		48%		
<b>BACKGROUND</b>					
	Applied Sciences	Health Sciences	Humanities & Social Sciences	Natural Sciences	Unknown
SAS	15%	16%	44%	12%	12%
SIS	13%	5%	60%	10%	12%

\*The data are based on the analysis of the provided project's Description of Work.

**DELIVERABLES AND PUBLICATIONS**

**Project deliverables**

DELIVERABLE NO.	DELIVERABLE NAME	DUE DATE OF DELIVERY (month)	ACTUAL SUBMISSION DATE: (month)
D1.1	Report, identifying current needs for outreach and dialogue on nanotechnologies in EU civil society	4	6
D1.2	Report, analyzing previous experiences and European projects and identifying best practices listing relevant ideas, insights and materials for each of the subsequent work packages	4	6
D1.3	Action plans for WP2, WP3, WP4 and WP5	6	9
D2.1	Report of the citizens' survey and in-depth interviews	15	17
D2.2	Report on the selection of innovative idea's	16	21
D2.3	National reports from up-stream citizen & multi-stakeholder dialogues, overall analysis and summary	24	-
D3.1	Report on third generation deliberative processes	24	-
D3.2	Condensed overall report covering national reportings of User Committees / User Think Tanks	28	-
D3.3	Report on the Risk Assessment workshops 1, 2 and possibly 3	32	-
D3.4	Condensed Risk Assessment report on Issues relevant to effective occupational and environmental risk governance	35	-
D4.1	Detailed education strategy and action plan	18	21
D4.2	Written assessment of all education activities	30	21
D4.3	Capacity building manual	28	-
D5.1	Detailed strategy and action plan for innovative outreach and communication activities	12	22
D5.2	Progress report on outreach / communication / dissemination activities	18	22



Stock-taking and meta-analysis of Science in Society projects throughout FP6 and FP7  
Final Case Studies

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<i>DELIVERABLE NO.</i>	<i>DELIVERABLE NAME</i>	<i>DUE DATE OF DELIVERY (month)</i>	<i>ACTUAL SUBMISSION DATE: (month)</i>
<i>D5.3</i>	<i>Written assessment of all outreach and communication activities and dissemination tools, including recommendations for stakeholder engagement</i>	<i>30</i>	<i>-</i>
<i>D6.1</i>	<i>Detailed report of the evaluation and impact assessment of the project's activities</i>	<i>30</i>	<i>-</i>
<i>D6.2</i>	<i>Concise policy briefings based on the detailed report from Task 6.1</i>	<i>36</i>	<i>-</i>
<i>D6.3</i>	<i>A set of project fact sheets, detailing the characteristics of best practices within the project</i>	<i>25</i>	<i>-</i>
<i>D6.4</i>	<i>Reports of Brussels workshops on: the implementation or Responsible Research and Innovation in research and innovation trajectories</i>	<i>34</i>	<i>-</i>
<i>D7.1</i>	<i>Management handbook</i>	<i>1</i>	<i>V2 on M19</i>
<i>D7.2</i>	<i>Overall condensed report on the NanoDiode project and advice on how to proceed with the nanodialogue and outreach</i>	<i>36</i>	<i>-</i>
<i>D7.3</i>	<i>Interim report M9</i>	<i>9</i>	<i>9</i>
<i>D7.4</i>	<i>Interim report M27</i>	<i>27</i>	<i>28</i>

**Related publications**

No publications were mentioned in the PIER documentation.

**MAIN SOURCES**

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NANODIODE Description of Work

NANODIODE Result in Brief "Engaging nanotechnologies"

NANODIODE Periodic Report Summary

## **SOCIAL INNOVATION AND CIVIC ENGAGEMENT "ITSSOIN"**

**Framework Programme: FP7 related to SIS**

**Action line/Part: -**

**Activity: -**

**Area: -**

**Dimension: CIVIL SOCIETY AND CITIZEN PARTICIPATION**

**Tool: Collaborative project**

**Project Call For Proposal: FP7-SSH-2013-2**

**Status: Ongoing**

**Total cost: €3 128 799.40**

**Total EU funding: €2 496 037.80**

**Website: <http://itssoin.eu/>**

**Period: 01/03/2014 - 28/02/2017**

**Subjects: Policies - Social Aspects**

**Project ID and Acronym: 613177, ITSSOIN**

### **BACKGROUND AND CONTEXT OF THE PROJECT AND STRATEGIC NEEDS**

With respect to the impact of the Third Sector (non-profit sector) in Europe, research and analysis carried out so far rather focused on socio-economic benefits such as revenues or employment effects. Instead of continuing this research stream, the ITSSOIN project seeks to investigate the long-term impact of the Third Sector from a social innovation point of view. The project assumes that the Third Sector is more capable to foster social innovation than other actor groups from private sector (profit sector) or public sector spheres. Social innovation is defined as the capacity "to generate novel ideas, ways and means of doing things, of addressing public and social problems of multiple kinds" (ITSSOIN.eu 2016). The rationale behind the main hypothesis in the ITSSOIN project is that Third Sector organisations tend to be "more responsive to the needs of vulnerable target groups and better in providing access to society and economy to marginalized people". Thereby the Third Sector succeeds in being sensitive and responding to societal needs, all too often neglected by the other sectors. In its inherent nature the Third Sector is therefore more closely linked to social innovations and responding to social needs". The Third Sector offers the opportunity to enhance society's capability to take action (ITSSOIN 2013). The Third Sector provides significant services to society (e.g. problem solving) and, thus, deserves critical attention.

### **SPECIFIC PROJECT OBJECTIVES**

According to the Description of Work (DoW) the project's basic underlying concept was "that non-profits are 'better' at social innovations than governmental actors and markets". Throughout the project, this hypothesis was supposed to be developed, empirically explored and tested. In order to facilitate research on the role of the Third Sector on social innovation, it was critical to start by conceptualising social innovation: "as the main source of impact by the Third Sector on society". Among other things, this assignment would then result in testable hypotheses and serve as a fundament to roll out the Work Packages. Furthermore, the project aimed at collecting data on the Third Sector and social innovation for nine countries in Europe, developing methods to measure the impact of the non-profit sector and identifying drivers for and barriers in the Third Sector. Based on this preparatory research, four case studies are delivered in areas where relevant societal challenges exist: arts & culture, social services & health, sustainability & consumer protection and in finance, work integration & community development. Next, policy recommendations are supposed to be provided on opportunities to regionally foster social innovation. Results are planned to be disseminated by Internet and Social Media and expert and stakeholder workshops and conferences. The project foresees to:

- Increase the understanding of social innovation;
- Assess the relation between the Third Sector and its contribution and impact;
- Define and evaluate the role and effects of volunteering in the Third Sector;
- Suggest recommendations on how EU and member state policies can foster the socially innovative capacity of the Third Sector.

Within FP7 Cooperation, the ITSSOIN project is referring to the Work Programme 2013 in Theme 8 – Socio-Economic Sciences and Humanities. It addresses the activity "major trends in society and their implications" and the thematic area "on the social dimensions of innovation in order to approach societal challenges" in the sub-area "societal trends and lifestyles" aiming at "understanding modern societal trends and their impact on socio-economic development in Europe." In this area, the work programme expects research to "conceptualise the value of social innovation as a driver of growth, social cohesion and participation as well as understanding the role of the Third Sector" (COM 2013).

### **SaS Action Plan**

The ITSSOIN project followed the Science and Society Action Plan, especially actions 19 to 23 under 1.3. Dialogue with citizens and 2.1. Involving civil society. Focused on empirically exploration and testing the role of the Third Sector on social innovation, ITSSOIN organised dialogues on local, regional and for the project on international level. Organising these dialogues via Internet, a mid-term conference linked and several workshops different stakeholders. Through four

Case Studies and the upcoming concluding conference in February 2017 specific themes will be publicly presented and discussed.

## **PROJECT RESULTS AND OUTCOMES**

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First, the project consortium provides a line of argumentation for linking social innovation to the Third Sector's contribution to the socio-economic development in Europe. Secondly, case studies are carried out to identify relations between public discourse on social innovation and the Third Sector involved. They find that in some European countries social innovation is considered as a direct policy instrument for social and economic development. In other member countries, the concept is almost non-existing in the policy landscape. In context where politicians are not actively promoting the social innovation idea, the concept is still being used in certain policy areas, partly as a result of European policy initiatives and the policy discourse they are embedded in (mainly in the Czech Republic and Spain)" (ITSSOIN.eu 2016). After having developed a conceptual framework, country profiles are designed. It was found that for most European countries social innovation was a rather new issue. Apart from that, perceptions regarding social innovation by media and the general public are evaluated. Results show, for instance, that media is framing social innovation and the Third Sector positively. However, a general understanding of social innovation is less covered compared to civic engagement and honorary voluntarism. The project consortium also conducted literature research on factors hampering civic engagement and discusses ways how to measure the impact of the Third Sector. Four case studies were conducted in the fields of arts & culture, social services & health, environmental sustainability & consumer protection in finance, work integration & community development. In order to disseminate the overall findings of the ITSSOIN project, a dissemination and exploitation plan is provided as well as a website and a project brochure. A mid-term conference was hosted in July 2015 in Paris.

ITSSOIN facilitates the understanding of the Third Sector's role on driving social innovation in Europe and thus contributes to meeting the objectives of the overall aims of the work programme 2013 in Theme 8: Socio-Economic Sciences and Humanities. While ITSSOIN is a research project in FP7 cooperation, it is indirectly referring to FP7-SIS Programme objectives in the FP7 capacities domain. For instance, in SIS Action Line 1 ('a more dynamic governance of science and society relationship') the FP7-SiS work programme is addressing social needs and interests and is calling for "richer forms' of engagement of citizens" in European research and innovation. The ITSSOIN project contributes by mapping and comparatively analysing the Third Sector in member countries driving social innovation and facilitating civic engagement. The Third Sector is governed by civic engagement, e.g. a general willingness to contribute without profit-making interest. The sector is highly viable regarding "richer forms of citizen engagement". New Third Sector organisations, for example, are many times initiated by committed. The organisations are highly significant to provide decent solutions to address societal challenges, in particular when for-profit business models are not operational. With its capacity for civic engagement the Third Sector is a strong driver for social cohesion.

### **Main achievements according to SiS Dimensions**

ITSSOIN has been relevant for developments in **Participation**. The project identifies the Third Sectors potential in implementing science in society. Through its close connection to social projects and civil engagement the participants in the Third Sector are going to evolve presenting research results in an one-directional approach to a lasting stage of involving civil society representatives and they will be able to use their achieved expertise in upcoming projects.

## **DISSEMINATION AND ENGAGEMENT ACTIVITIES AIMED AT TRANSFERRING THE PROJECT RESULTS TO WIDER COMMUNITIES**

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The consortium identifies four target groups to address by dissemination measures;

- Policy makers acting on local, regional, national and international level since they have to consider social innovation when initiating policies or policy reforms,
- Third Sector managers including third sector entrepreneurs, volunteers and for-profit firms (interested in social innovation and cooperation with third sector organisations),
- Particular Third Sector groups such as community groups (communitarian, social movements), non-profit and for-profit organisations, social businesses or enterprises, and also public sector bodies,
- Researchers dealing with social innovation from various disciplines (e.g. innovation studies, innovation economics, organisational management, political sciences, socio-logy, to particular third sector studies and public policy and administration research).

Dissemination activities are already outlined in the Description of Work (DoW) and include the following elements: dissemination plan (or strategy for dissemination of ITSSOIN results), project website, project brochure, intermediate conference, stakeholder workshops, final conference. According to the dissemination plan, stakeholder workshops are used for developing four case studies, to receive feedback on the research concept as well as to inform an interested stakeholder audience about the performed research. Apart from the stakeholder workshops, which are part of the overall conceptual framework, further dissemination workshops with actors from local and regional public bodies take place. Two ITSSOIN conferences are hosted to spread knowledge about the ITSSOIN project, its concept, methodology and results on a larger scale. Consortium members are participating in other (non-ITSSOIN) conferences to present the project and its results. Publications include the project brochure and articles published online or in peer-reviewed

journals. Most publications can be accessed online via the project website ([www.itssoin.eu](http://www.itssoin.eu)). The website also includes news and information about recent events. Contributions by other online media including blogs are also envisaged. The mid-term conference took place on July, 8 2015 and several stakeholder workshops were undertaken end of June 2016. Except the concluding conference, which will be hosted on February, 20 2017 in Brussels, all foreseen dissemination activities has conducted.

## PROJECT IMPACTS

In the project consortium, there are only two partners, which do not belong to the top 10% of research organisation in terms of centrality in the respective European Research Community. Two partners (University of Heidelberg, Stitching VU-VUMC) are even under the top 1%, while five organisations are under the top 5% and another one belongs to the top 10%. In terms of scientific attractiveness, the London School of Economics belongs to the most highly ranked universities in Europe, Information on business attractiveness and citations cannot be evaluated or is not available. Given that the majority of partners can be regarded as central actors in European social science research, the potential impact can be assumed to be high.

As mentioned above, the project aligns with the Lisbon agenda to foster innovation for jobs and growth and to address societal challenges. It seeks to particularly facilitate social innovation and societal change. ITSSOIN can help to reduce "the welfare burden on the state, improve business-society relations and increase societal cohesion on a broad scale". However, the actual impact of the project cannot be yet assessed; the project will not be completed before 2017. Latest project reports available suggest, that social innovation is approached very differently in the analysed member states and media hardly pays attention to social innovation by the Third Sector yet. It remains to be seen, whether these and further results will achieve impact, for instance, by initiating policy initiatives to support social innovation by the Third Sector. Further information regarding the scientific or social media impact is not available.

## PATH-BREAKING ADVANCEMENTS

The ITSSOIN project provides major advancement regarding the alignment of research and innovation policy in Europe. The Third Sector is in common not addressed by public innovation policies although the non-profit sector is particularly relevant as driver for social innovation to address societal challenges like, for example demographic change, sustainable (re)production and consumption patterns and many other areas of social and socio-ecological concern.

## BEST PRACTICES

The ITSSOIN project can be appraised as good practice example responding to the shift in European innovation policy towards a more integrated and social challenge driven approach. The ITSSOIN project is analysing and addressing innovation practices and capacities in the non-profit sector and this sector for particularly driving social innovation.

## EU ADDED VALUE OF THE PROJECT

The project consortium involves eleven partner organisations from nine European member countries. The project is mapping and comparatively analysing the Third Sector across several European member states. This approach is providing next to mapping and analysing the Third Sector in the European Union good evidence for coordinating and supporting public policies as driver for social innovation by the non-profit sector.

## PARTICIPANTS AND RESEARCH TEAM

Number of participants: 11

Number of countries involved: 9

	Type	Country	Role	Previous participations in FP
RUPRECHT-KARLS-UNIVERSITAET HEIDELBERG	HES	DE	Coordinator	124
Masarykova univerzita	HES	CZ	Participant	62
LONDON SCHOOL OF ECONOMICS AND POLITICAL SCIENCE	HES	GB	Participant	100
UNIVERSIDAD DE OVIEDO	HES	ES	Participant	31
UNIVERSITA COMMERCIALE LUIGI BOCCONI	HES	IT	Participant	41
UNIVERSIDADE DA CORUNA	HES	ES	Participant	17
MINISTERIE VAN VOLKSGEZONDHEID,	PUB	NL	Participant	8

	Type	Country	Role	Previous participations in FP
WELZIJN EN SPORT COPENHAGEN BUSINESS SCHOOL	HES	DK	Participant	31
ASSOCIATION GROUPE ESSEC	HES	FR	Participant	4
STICHTING VU-VUMC	HES	NL	Participant	245
STIFTELSEN STOCKHOLM SCHOOL OF ECONOMICS (SSE) INSTITUTE FOR RESEARCH	REC	SE	Participant	1

### Team Composition

Team Size: members\*

GENDER				
Female	Male		Unknown	
34%	66%		0%	
SENIORITY				
Average	Junior		Senior	
3%	14%		83%	
PhD				
No				Yes
14%				86%
BACKGROUND				
Applied Sciences	Health Sciences	Humanities & Social Sciences	Natural Sciences	Unknown
3%	0%	97%	0%	0%

\*The data are based on the analysis of the provided project's Description of Work.

### DELIVERABLES AND PUBLICATIONS

It presents the documents produced by the project (intermediate and final report, dissemination report) and any publication produced as direct consequence of the project.

#### Project deliverables

DELIVERABLE NO.	DELIVERABLE NAME	DUE DATE OF DELIVERY (month)	ACTUAL SUBMISSION DATE: (month)
D1.1	Social Innovation as Impact		
D1.2	D1_2_Policy frameworks third sector		
D1.3	D1_3_Perceptions of the third sector		
D1.4	D1_4_EC_ITSSOIN Hypotheses_oPI_END_20141128		
D1.5	D1_5_EC_Research Brief_oPI_20141128		
D2.1	D2_1_Theory and empirical capturing third sector		
D2.2	D2_2_Profiles and policy perspectives		
D2.3	D2.3_Images of the third sector		
D2.4	D2_4_Country selection		
D2.5	D2_5_EC_POLICY BRIEF_EC format_20150703		
D3.1	D3_1_Participation what helps and hinders		
D3.1	D3_2_What participation does for participants		
D3.1	D3_3_The Impact of Participants		
D3.1	D3_4_Organisations that facilitate volunteering		
D3.1	D3.5 Policy Brief on Volunteering		
D4.1	D4_1_Field description_Arts_Culture_END_20150707		
D4.2	D4.2_Case Selection Arts and Culture_Formatted		
D5.1	D5_1_Field description_Social Services_Health Care_END_20150707		
D5.3	D5.3_Case Selection_Social Services_Health Care_Preface		
D6.1	D6_1_Field description_Env Sust_Consumer		

DELIVERABLE NO.	DELIVERABLE NAME	DUE DATE OF DELIVERY (month)	ACTUAL SUBMISSION DATE: (month)
	<i>Prot_END_20150715</i>		
<i>D6.2</i>	<i>D6.2_D6.3_Environmental Sustainability_Consumer Protection in Finance_Preface</i>		
<i>D7.1</i>	<i>D7_1_Field description_Work Int_Comm Dev_END_20150714</i>		
<i>D7.2</i>	<i>D7.2_D7.3_Work Integration_Community Development_Preface</i>		
<i>D9.1</i>	<i>D9_1_Dissemination Plan</i>		
<i>D9.2</i>	<i>D9_2_ITSOIN.eu Website</i>		
<i>D9.3</i>	<i>D9_3_Project Flyer</i>		
<i>D9.4</i>	<i>D9_4_Documentation of the Intermediate ITTSSOIN Conference</i>		
<i>D10.1</i>	<i>D10.1_Management Plan_END 20140630.docx</i>		
<i>D10.2</i>	<i>D10_2_Quality Standards</i>		

### Related publications

NA; however, the project consortium refers to future publications / reports to be published along the project duration

### MAIN SOURCES

EU COM (2013): WORK PROGRAMME 2013 COOPERATION THEME 8 SOCIO-ECONOMIC SCIENCES AND HUMANITIES.  
[http://ec.europa.eu/research/participants/data/ref/fp7/132141/h-wp-201301\\_en.pdf](http://ec.europa.eu/research/participants/data/ref/fp7/132141/h-wp-201301_en.pdf)

### Websites:

<http://www.open-evidence.com/sis-sas/fiche/613177.html>

<http://itssoin.eu>

Project documents:

Annex 1 – “Description of Work”

## Governance and Scientific Advice, RRI: Science and Society

## **MULTIDIMENSIONAL INTEGRATED RISK GOVERNANCE – "MIDIR"**

**Framework Programme: FP6**

**Action line/Part: Part A: Bringing research closer to society**

**Activity: 4.3.1 Governance and scientific advice**

**Area:**

**Dimension: Governance and Scientific Advice**

**Tool: Coordination Actions**

**Project Call For Proposal: FP6-2005-SCIENCE-AND-SOCIETY-14**

**Status:**

**Total cost: 393 857.28 €**

**Total EU funding: 367 562 €**

**Website: no longer available**

**Period: 01/06/2006 – 29/02/2008**

**Subjects: Information and Media – Safety – Scientific Research – Social Aspects**

**Project ID and Acronym: 36708, MIDIR**

### **BACKGROUND AND CONTEXT OF THE PROJECT AND STRATEGIC NEEDS**

Current risk management research and assessment practices are fragmented by subject and by the different levels of decision-making. Several risk management communities, addressing such different hazards like river floods, major accident hazards or biotechnology or nanotechnology risks share a strong tendency to silo mentality. They rarely interact beyond the limits of their individual sectors, disciplines, regions and cultures which they serve to. In consequence, differential risk assessment methods exist for various hazard types (e.g. natural and technological). At the same time, a particular hazard may be assessed and evaluated fairly different across various countries and cultures, expert circles and advocacy groups. The same is true for risk management and respective decision-making, bearing strongly on the outcome of any effort to address and deal with risk and uncertainty. Another problem is that risk governance is rarely used in disaster management strategies and risk resilience concepts are not well integrated in approaches dealing with potential impacts of more man-made hazards. In consequence, a more interdisciplinary perspective is substantial. Also, taking account of the limitations of risk science and research in general, the importance and difficulty of maintaining social trust, and respecting the socio-political nature of risk as well point to the demand for a new approach towards resilience and risk governance that is not only interdisciplinary, but also more inclusive regarding non-scientific perspectives. More public participation in risk assessment and decision-making is needed in order to make the decision process more democratic, improve the relevance and quality of technical risk analyses and increase the legitimacy and public acceptance of political decisions.

### **SPECIFIC PROJECT OBJECTIVES**

The main objective of the MIDIR project is to develop a resilience and risk governance concept based on existing approaches and to develop an accompanying risk management tool. In this context, the material goal "resilience" and a more procedural approach of risk governance will be combined through an interdisciplinary approach that defines a reasonable pathway (risk governance) towards the material goal of creating resilient communities. The new concept will be tested in the real decision-making settings of existing risk management approaches by the example of two emerging risks with a high degree of uncertainty and ambiguity: risks related to criminals under hospital treatment and risks related to health due to e-commerce. The new risk governance concept will be tested in practice and lead to a new, innovative knowledge stock about dealing with risks in Europe. An accompanying management tool will monitor and evaluate the research process over the project duration, providing detailed and comparable information about the results. Bringing risk governance to public policy and decision-making and other societal actors by networking and disseminating the new concept will complete the co-ordination activities. The specific objectives of the project are:

- To develop an overall framework for risk governance and resilience measurement and monitoring based on a review of current approaches, norms and standards;
- To make measurable and tangible the culture of cooperation required by public sector organisations to collaborate in preparing for and meeting cross-sectoral risks;
- To pilot an e-management resilience tool that can be used for resilience planning, monitoring and management at the European, national or at local and regional level;
- To provide examples based on two case studies, resulting in quantitative risk measures and capability maturity models to capture know-how in the domain, supported by an additional database of knowledge and case study experiences;
- To provide examples based on real risk management arrangements;
- To provide a framework of questions whereby the completeness of risk awareness and perception in a situation can be ensured or at least improved;



- To disseminate the overall framework among decision-makers and scientists in risk research and assessment all over Europe by networking, events and the implementation of a communication and dissemination strategy.

### **SaS/SiS Programme objectives/Activity Lines**

The activity line intended "to create conditions under which policy decisions in multi-level governance are more effective in meeting society's needs, more soundly based on science and, at the same time, through inclusive participation take account of the relationship between technological innovation and social change, as well as the aspirations and concerns of civil society".

The MIDIR project aimed specifically at developing a state-of-the-art framework for risk governance and resilience measurement. The project contributes to Activity 4.3.1 "Governance and Scientific Advice", where the main project aim is to create conditions under which policy decisions in multi-level governance are more effective in meeting society's needs, and based on scientific evidence. By fostering a culture of cooperation among public sector organisations, MIDIR contributed to more inclusive and participatory approaches and to account for the relationship between technological innovation and social change.

In the light of an **Innovation Union** being the guiding vision shaping Europe's 2020 strategy, a more comprehensive understanding of risk assessment and risk governance is crucial. Especially where modern technologies and progress as well as societal dynamics produce viable risks of various kinds (e.g. in the MIDIR case studies on risks related to criminals under hospital treatment and risks related to health due to e-commerce), a new approach to risk governance is significant for a comprehensive success of the Innovation Union.

With regard to the **European Research Area**, the MIDIR project objectives are tailored towards improved transnational cooperation and support. Developing an overall European framework for risk assessment and resilience measurement. This helps building a common research agenda and strategy with regard to the grand challenge of risk governance.

### **SaS Action Plan**

The MIDIR project picks up on some of the key issues in the **Science and Society Action Plan** with regard to Risk Governance. A key objective is to improve risk governance practices through networking at the European level, which is addressed by the activities planned in MIDIR towards resilience planning, monitoring and management across stakeholder organisations at the European, the national and local policy level. Under Action 35 in the SaS Action Plan it is specified that the Commission will initiate an exchange of experience as a precondition for developing guidelines for improved risk governance and communication of issues of scientific uncertainty and risk. These issues are explicitly addressed in the MIDIR DoW, focusing on the limitations of risk science and research, the importance and difficulty of maintaining trust, and the socio-political nature of risk, all of which require a new approach to risk governance including public participation in risk assessment and decision-making and improved relevance and quality of technical risk analyses.

## **PROJECT RESULTS AND OUTCOMES**

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### **Main achievements according to Project objectives**

The project objectives expressed in the Description of Work (DoW) have been achieved and the MIDIR project produced the expected results, such as developing an overall framework for risk governance and resilience monitoring, an e-management resilience tool, a universal risk assessment questionnaire etc. The main deliverable has been the MIDIR integrative and multidimensional risk governance framework concept, supported by a measurement or indicator system consisting of two parts: (1) indicators for measuring procedural and methodological aspects applicable to differential risk settings; (2) indicators for measuring contextual aspects that have to be defined for each risk setting individually. The MIDIR approach can be applied by government agencies, enterprises and non-governmental organisations, which all can benefit from comprehensive and dialogue-oriented risk management.

### **Main achievements according to Programme objectives**

By developing the MIDIR approach and the risk governance framework, a contribution has been made to the objectives of the FP6 SaS Work Programme under topic 4.3.1.1 "Integrative approaches to risk governance". As has been done in the MIDIR project, the aim of the topic is to develop integrative models and concepts that link the different phases of risk governance (risk assessment, risk management and risk communication) from an interdisciplinary point of view. The MIDIR framework also explicitly considered the challenges faced by policy-makers having to reconcile the constraints and conditions of a globalised economic and technological environment with risk management and societal aspirations. The MIDIR project also picks up on the concept of resilience as a key guiding principle, as asked for in the work programme, where a trend away from risk reduction towards a resilience concept and discourse approach is being observed. Finally, MIDIR also focuses on collaboration between different stakeholders in the field of risk governance, as is envisaged in general in the work programme. Priority is for example given to those proposed projects that build bridges between those engaged in risk governance in different disciplines, and in

possibly at a first glance unrelated but applied areas. Insofar, MIDIR has made the expected impact by contributing to science-based policymaking including the active participation of citizens in policy development.

### **Main achievements according to SaS Dimensions**

The MIDIR project is a typical example of the approach shaping the Science Governance Dimension in FP6-SaS programme, especially in the later stages of the work programme implementation: the focus of the work programme has been on new and innovative forms of governing science, research, innovation, risk and uncertainty, technological development etc., based on a discursive approach to science and technology governance, and aiming at resilience as a key concept for addressing risk and uncertainty. In that sense, the project MIDIR aims at improving the robustness of public policy-making when facing high uncertainty and ambiguity in development through an integrated approach that creates synergies between the areas of scientific advice, public participation and communication, as well as risk assessment and governance. The MIDIR project recognises and considers in its project approach, that trust, or better the lack of it, is fundamental for risk perception of the public between "real" and "interpreted" risks. Trust-related and emotional aspects in public debate on risk and uncertainty can often frustrate experts and policy-makers. It is emphasised that the complex reasoning behind such responses needs to be understood rather than dismissed as irrational. Consequently, the MIDIR framework adopts a multidimensional and integrative perspective and calls for consulting and involving stakeholders and individuals like people living in the vicinity of potentially hazardous infrastructures and organisations that represent interests.

### **DISSEMINATION AND ENGAGEMENT ACTIVITIES AIMED AT TRANSFERRING THE PROJECT RESULTS TO WIDER COMMUNITIES**

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Dissemination and engagement activities in the MIDIR project seemed to have been fully implemented concentrating on bringing risk research closer to society. That means an extensive and active involvement of decision-makers on the political and administrative level as well as stakeholders from the early beginning of the project. This dialogue-oriented approach sought for a better understanding and acceptance of research and innovation by society and vice versa bringing the legitimate interests of society and stakeholders into research. Aside from the relatively abstract risk governance strategies that are difficult to communicate to non-experts, the test cases were designed as areas for a mutual understanding within spatially, temporally and contently similar risk settings in different member states. The dissemination strategy focused on two basic stakeholder groups, namely (1) Science: Dissemination of the concept and goals of the Multidimensional Integrated Risk Governance Framework to the risk governance community by a Scientific Colloquium and scientific networking activities; (2) Decision-making: A final workshop with representatives from various policy decision-making areas and policy levels (EU and national level, regional and local policy level) in order to call for a readjustment of legal and programmatic frameworks for risk assessment and risk management, as well as for influencing real decision-making about tolerating or altering risks in different risk cultures. The general media coverage of the project has remained limited. There have been 5 press releases and 25 press items.

### **PROJECT IMPACTS**

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It can be expected that the potential impact of the MIDIR project is relatively high, since one of the six participating organisations belongs to the top 1% of the most central organisations in the relevant social science and research networks of organisations regularly contributing to the Framework Programmes. Another project participant belongs to the top 5% of the most central organisations in this network. Thus, it can be expected that networking and dissemination of results are promoted by these organisations (CNR, Dortmund University).

The **scientific impact** measured based on publications remains limited with only one publication (Journal Impact Factor 2.27). However, this very specific article was cited 13 times.

The **social media impact** of MIDIR can be assumed to have remained relatively limited. There has not been any relevant number of social media posts. This is possibly due to the fact that the project ran from 2006 – 2008. At this time social media usage was in general not as strong as it is today. Furthermore, the conference website does since quite a while not exist anymore.

With regard to **institutional and organisational impacts**, the MIDIR project has produced a risk governance framework that can be seen as a new model for assessing and dealing with risk and uncertainty in a comprehensive manner and with additional focus on resilience matters across various policy levels, risk cultures and governance arrangements.

The **policy impact** of the MIDIR project and the framework disseminated among policy decision-makers at different policy levels can be regarded as significant. Risk governance is a concept that is embedded in the overall technology and innovation governance strategy in the European Union as well as in many different other policy areas, ranging from health policy, environmental policy, spatial planning, water management, infrastructure policy and planning and many more. It also relates to neighbouring fields, such as disaster prevention and management or consumer protection. Thus, the MIDIR framework offers a new model not only for research and analysis activities, but first and foremost a more integrated approach for cross-sectoral and participatory policy-making (under risk and uncertainty) in various fields.

## PATH-BREAKING ADVANCEMENTS

A significant advancement produced by the MIDIR project in the context of Science Governance is the innovative approach to risk governance – with a view to its conceptual basis (participatory approach) and stakeholder involvement. With regard to the conceptualization of the MIDIR risk management framework, the integration of “resilience” with “risk governance” in the same context has to be seen as an innovative approach to combining an appropriate path (risk governance – including identification, assessment, management and communication of risk) towards the material goal of creating resilient communities, capable to deal with the whole range of risks and uncertainties, nature-made as well as of man-made constitution. The emphasis on involving stakeholders in the process of developing tools for assessing and dealing with risks and being aware of different risk cultures presents another advancement.

## BEST PRACTICES

The MIDIR project can be seen as a best practice example especially with regard to efforts of establishing cross-thematic partnerships with other activities in the FP6-SaS Work Programme. A key element of the MIDIR project was an analysis of other existing approaches in the field of risk and uncertainty management. To that end, other Science and Society funded projects were reviewed, e.g. the projects STARK, TRUSTNET-IN-ACTION and RISK NETWORK. Attention was also paid to European and international scientific communities and policy networks in the field of risk governance. The project partners participated, for example, at the European Workshop on Interdisciplinary Research on Risk and Governance, held in June 2004 in Brussels. The workshop was organized by the International Risk Governance Council.

## EU ADDED VALUE OF THE PROJECT

The added value for developing and testing the MIDIR risk governance framework in a FP funded project can be seen in the opportunity to assess the influence of different risk cultures as well legal conditions and management practices in different member states. To comparatively test a risk governance concept across different member countries to use the same methodological approach is highly relevant not alone from a scientific point of view. In a European policy strategy perspective such an attempt is creating the necessary preconditions to negotiate more universal specifications for better harmonized cross-border, cross-sectoral risk governance approaches across Europe in various fields.

## PARTICIPANTS AND RESEARCH TEAM

### Participants

Number of participants: 6

Number of countries involved: 3

	Type	Country	Role	Previous participations to FP
Consiglio Nazionale delle Ricerche	REC	IT	Coordinator	152
Regione Lazio	OTH	IT	Participant	1
Ministerium für Arbeit, Soziales, Familie und Gesundheit des Landes Rheinland-Pfalz	OTH	DE	Participant	1
Gaiasoft International Ltd	OTH	GB	Participant	1
IKU GmbH	OTH	DE	Participant	1
Universität Dortmund	HES	DE	Participant	8

### Team Composition

Team Size: members\*

GENDER		
Female	Male	Unknown
0%	100%	0%
SENIORITY		
Average	Junior	Senior
0%	0%	100%
PhD		
No	Yes	

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0%		100%		
BACKGROUND				
Applied Sciences	Health Sciences	Humanities & Social Sciences	Natural Sciences	Unknown
50%	0%	50%	0%	0%

*\*The data are based on the analysis of the provided project's Description of Work.*

### DELIVERABLES AND PUBLICATIONS

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DELIVERABLE NO.	DELIVERABLE NAME	DUE DATE OF DELIVERY (month)	ACTUAL SUBMISSION DATE: (month)
<i>D1</i>	<i>Mid-term report*</i>	6	-
<i>D2</i>	<i>Mid-term report*</i>	6	-
<i>D3</i>	<i>Mid-term report*</i>	6	-
<i>D4</i>	<i>Mid-term report*</i>	6	-
<i>D5</i>	<i>Marketing report*</i>	12	-
<i>D6</i>	<i>Final report*</i>	12	-

### Related publications

M. Fleischhauer , S. Greiving , F. Flex , M. Scheibel , T. Stickler , N. Sereinig , G. Koboltschnig , P. Malvati , V. Vitale , P. Grifoni , and K. Firus (2011). Improving the active involvement of stakeholders and the public in flood risk management – tools of an involvement strategy and case study results from Austria, Germany and Italy. *Natural Hazards and Earth Systems Sciences* 12, 2785-2798.

### MAIN SOURCES

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Project Description of Work (DoW)

Final project brochure

Project Deliverables (most of them no more available)

## **EUROPEAN CONFERENCE ON SCIENTIFIC ADVICE, CRISIS MANAGEMENT AND MEDIA - "CONFERENCE SACRIMM"**

**Framework Programme: FP6**  
**Action line/Part: Part A: Bringing research closer to society**  
**Activity: 4.3.1 Scientific advice, governance and reference systems**  
**Area: -**  
**Dimension: Governance and Scientific Advice**  
**Tool: Specific Support Actions**  
**Project Call For Proposal: FP6-2002-SCIENCE-AND-SOCIETY-1**  
**Status: Closed**  
**Total cost: € 140 000**  
**Total EU funding: € 140 000**  
**Website: -**  
**Period: 27/03/2003 - 26/11/2003**  
**Subjects: -**  
**Project ID and Acronym: 503539 - CONFERENCE SACRIMM**

### **BACKGROUND AND CONTEXT OF THE PROJECT AND STRATEGIC NEEDS**

In the management phase of a crisis, the communication of sound scientific advice to decision-makers on one hand, and to the public on the other, plays an important role in ensuring an appropriate and coordinated response to a crisis. The development of an effective communication strategy requires the close co-operation of all involved stakeholders (scientists, national and international authorities, societal organisations and the media) in order to establish commonly agreed approaches.

International experiences of crises, both natural and man-made, have provided the scientific community with opportunities to learn from experience, i.e. SARS outbreak. Building trust between the actors of the crisis management process in advance was stressed as an important factor in the smooth management of a crisis.

### **SPECIFIC PROJECT OBJECTIVES**

#### **Project objectives**

The Hellenic Centre for Infectious Disease Control (HCIDC or KEEL), in co-operation with the Hellenic Ministry of Press and Mass Media (MPMM), was expected to organise a European Conference titled "Scientific Advice, Crisis Management and Media" aimed at providing a forum for scientists, policy makers, society and media experts to discuss and analyse lessons learnt and propose mechanisms to develop more efficient, ethical and effective communication strategies.

The key objectives of CONFERENCE SACRIMM were:

- **Objective 1:** To organise a European conference with eminent speakers and participants invited from the European Union and other countries.
- **Objective 2:** To create a platform for communication between scientists and media to be used during crisis management.
- **Objective 3:** To explore the good practices in presenting scientific advice to the public during the management of a crisis.

#### **SaS/SiS Programme objectives/Activity Lines**

The objective of CONFERENCE SACRIMM was to organise a meeting dedicated to communication between scientists and media during crises. The objectives of CONFERENCE SACRIMM were thus consistent with the SaS objective of improving communication and dialogue between the scientific community and the public on issues of European relevance, emphasising the role of audio-visual media. More generally, the project was in line with the Activity Line Objectives. In fact, through discussions and through the identification of best practices on communication strategies to be used during crisis, it contributed to the creation of conditions under which policy decisions are more effective in meeting society's needs. Moreover, the conference format allowed participants of all kind to express themselves and communicate their aspirations and concerns.

#### **Innovation Union Objectives**

Increasing social benefits of science research is an objective of the Innovation Union. In that respect, CONFERENCE SACRIMM's purpose was consistent with the Innovation Union objectives as it aimed to organise a meeting dedicated to communication between scientists and media during crises.

#### **European Research Area Objectives**

Providing an optimal circulation and access to scientific knowledge for all is an objective of ERA. In that respect, CONFERENCE SACRIMM's purpose was consistent with ERA goals as it aimed to organise a meeting dedicated to communication between scientists and media during crises.

### **SaS Action Plan**

The project was consistent with the SaS Action Plan and in particular with Action 35, as through its objective 3 it aimed to explore good practices in presenting scientific advice to the public during the management of a crisis and therefore contributed to the improvement of practices in risk governance.

The project was also indirectly linked to:

- Action 36, as the project contributed to the transmission of expertise by the identification of best practices on communication and risk management.
- Action 38, as the project contributed to the setting up of European Common Scientific Reference Systems by developing effective communication strategies in moment of crisis and reinforcing dialogue amongst stakeholders.

## **PROJECT RESULTS AND OUTCOMES**

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### **Main achievements according to Project objectives**

On the basis of a review of the outcomes of CONFERENCE SACRIMM, held in Athens in June 2003, the project can be considered as a success:

- Concerning **objective 1**, CONFERENCE SACRIMM attracted 309 participants including scientists, media representatives, academics, health workers, decision-makers and NGO. Feedback received from participants was satisfying.
- Concerning **objective 2**, CONFERENCE SACRIMM enabled the establishment of long-term relationships between the HCIDC and Greek media, which resulted in fruitful collaborations during the Olympic Games held in Athens in 2004 (see impacts section).
- Concerning **objective 3**, CONFERENCE SACRIMM examined the relationship between scientific advice, crisis management and the role of the media, as well as covering wider underlying principles and key public policy, ethical and communication aspects which have an effect on crisis management.

Although the project turned out to be a success, it is not possible to state if there have been any missing activities, as the Description of Work was not provided.

### **Main achievements according to Programme objectives**

As stated in the project objectives section and confirmed by a review of project deliverables, the CONFERENCE SACRIMM project results were in line with the SaS objective of improving communication and dialogue between the scientific community and the public on issues of European relevance, emphasising the role of audio-visual media.

Furthermore, the dialogue ensured by the project during the forum led towards science based policymaking and was built through the participation of scientists, policy makers, society and media experts.

### **Main achievements according to SaS Dimensions**

The CONFERENCE SACRIMM project was in line with the Governance and Scientific Advice SaS dimension as it contributed to enabling a stronger public engagement in science and technology.

The project also had a positive impact in strengthening and improving European science systems and in fostering the uptake of scientific advice in policymaking. In fact, it examined the relationship between scientific advice, crisis management and the role of the media.

## **DISSEMINATION AND ENGAGEMENT ACTIVITIES AIMED AT TRANSFERRING THE PROJECT RESULTS TO WIDER COMMUNITIES**

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A project web-site was created for the event.

A press release was published one day before the start of the conference, as well as a press conference during the meeting, which was well attended by local journalists covering health issues and resulted in the production of a TV report on one of the local private TV channels.

A CD Rom was also produced including conference files in an attractive and up-to-date format, such as the final programme of conference sessions, the reports from all sessions and workshops, the conference statement and the list of attendees to the conference. The CD was disseminated to all participants and to relevant groups in various EU Committees, such as the Health Security Committee and its Working Group on Risk Communication and the Expert Group on Research for Biological and Chemical Terrorism.

It is not possible to detect any missing activities, as the Description of Work was not provided.

### PROJECT IMPACTS

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Potential impact of the project:

CONFERENCE SACRIMM was expected to have an impact on long-term relationships between scientists and the media, as well as to establish good practices for efficient communication during crises requiring the public dissemination of scientific advice.

- **Betweenness centrality:** None of the project partners participated in the specific programmes "Strengthening the ERA" in FP6.
- **Scientific attractiveness:** No highly ranked universities participated in the project.
- **Business attractiveness:** No highly ranked R&D investors participated in the project.

**Actual impact** as resulting from the project documents and/or commented during the interviews with project coordinators. Impacts can be clustered into four types:

- **Scientific impact:** No publications were produced in this project.
- **Social Media impact:** No significant impact on social media.
- **Institutional and organisational impact:** The Hellenic Centre for Infectious Diseases Control used the conclusions and recommendations of the CONFERENCE SACRIMM:
  - The HCIDC participated at a training seminar for journalists covering health issues in preparation for the coverage of the Olympic Period in Athens.
  - The HCIDC produced specific "fact sheets" with digestible information on various agents and diseases, to be disseminated to journalists and the public in case a problem arose on the subject.
  - The HCIDC produced daily reports targeting non-medical personnel on the epidemiological status of all Olympic areas in Greece for the duration of the Olympic Period. This report was provided to the Ministry of Health in case problems arose with clusters of disease cases or an epidemic.
- **Policy impact:** CONFERENCE SACRIMM enabled efficient networking between policy-makers and other stakeholders, which improves decisions-making processes and outputs.

### PATH-BREAKING ADVANCEMENTS

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None.

### BEST PRACTICES

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None.

### EU ADDED VALUE OF THE PROJECT

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None.

### PARTICIPANTS AND RESEARCH TEAM

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#### Participants

Number of participants: 2

Number of countries involved: 1

	Type	Country	Role	Previous participations in FP
HELLENIC CENTER FOR INFECTIOUS DISEASES CONTROLL	OTH	GR	Coordinator	1
MINISTRY OF PRESS AND MASS MEDIA	IND	GR	Participant	1

### DELIVERABLES AND PUBLICATIONS

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#### Deliverables

Stock-taking and meta-analysis of Science in Society projects throughout FP6 and FP7  
Final Case Studies

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<i>DELIVERABLE NO.</i>	<i>DELIVERABLE NAME</i>	<i>DUE DATE OF DELIVERY (month)</i>	<i>ACTUAL SUBMISSION DATE: (month)</i>
1-2	<i>Final Program and Mail List</i>	1	2
3-4	<i>Mailings and preparation</i>	3	3
5	<i>Event organization</i>	3	3
6-7	<i>Proceedings and report</i>	6	25

**Related publications**

No publications were produced in this project.

**MAIN SOURCES**

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CONFERENCE SACRIMM Final Report



## Governance and Scientific Advice, RRI: Science in Society

## **EUROSCIENCE OPEN FORUM 2010 – “ESOF2010”**

**Framework Programme: FP7**  
**Action line/Part: 5.3 Science and society communicate**  
**Activity: -**  
**Area: -**  
**Dimension: Governance and Scientific Advice**  
**Tool: Coordination and support action**  
**Project Call For Proposal: FP7-Adhoc-2007-13**  
**Status: Closed**  
**Total cost: € 557 467**  
**Total EU funding: € 300 000**  
**Website: Website no longer available**  
**Period: 01/02/2010 - 31/12/2010**  
**Subjects: Scientific Research - Social Aspects**  
**Project ID and Acronym: 262787 - ESOF2010**

### **BACKGROUND AND CONTEXT OF THE PROJECT AND STRATEGIC NEEDS**

Created by Euroscience, ESOF – Euroscience Open Forum – is the biennial pan-European meeting dedicated to scientific research and innovation. At ESOF meetings, leading scientists, researchers, business representatives, entrepreneurs and innovators, policy makers, science and technology communicators and the general public from all over the world discuss new discoveries and debate the direction that research is taking in the sciences, humanities and social sciences. ESOF is unique in that it is both international and multidisciplinary.

ESOF provides an opportunity to discuss the frontiers of scientific and technological research in Europe, to contribute to the development of a European Scientific Identity together, to bridge the gap between science and society and to stimulate policies to support scientific research. Unlike other scientific conferences, ESOF’s Scientific Programme is multidisciplinary and is complemented by three other programmes. These are the Career Programme, which is geared specifically towards young European researchers, the Science to Business Programme, which addresses in particular businesses and potential entrepreneurs and the Science in the City Programme, which hosts events within the city in order to bring scientific culture to the general public.

### **SPECIFIC PROJECT OBJECTIVES**

#### **Project objectives**

ESOF aimed to present cutting-edge scientific and technological developments in all scientific areas from natural sciences to social sciences and the humanities, stimulate the European public’s engagement with science and technology, foster a European dialogue on science and technology, society and policy by offering a platform for cross-disciplinary interaction and communication between the public, politicians, policy makers, industry, the media and scientists and to provide a valuable resource, including careers advice, for young scientists.

The key objectives linked to the promotion and communication of ESOF2010 were:

- **Objective 1:** to attract a large number of participants (4 000 participants expected).
- **Objective 2:** to promote, advertise and encourage registration in the ESOF2010 conference;
- **Objective 3:** to create a suitable environment for the encounter and the exchange between scientists, teachers and students, researchers and politicians, journalists and business people, thus promoting an open and free dialogue at the international level and offering the most advanced communication instruments;
- **Objective 4:** to draw the general public closer to scientific themes therefore enabling the comprehension of their values and contents;
- **Objective 5:** to attract sponsors and enhance fundraising activities.

#### **SaS/SiS Programme objectives/Activity Lines**

ESOF2010 aimed to organise a meeting dedicated to scientific research and innovation. The objectives of ESOF2010 were thus consistent with the SiS objective of enabling a better understanding of the place of science and technology in society, addressing the ambiguous feelings expressed by the public (citizens) regarding knowledge of and the potential benefits from science and technology, fighting the perceived isolation of the world of science from everyday reality and providing the public with a platform to express its views.

#### **Innovation Union Objectives**

Spreading the benefits of innovation across the Union is an objective of the Innovation Union. In that respect, ESOF2010’s purpose was consistent with the Innovation Union goals as it aimed to organise a meeting dedicated to scientific research and innovation.

### European Research Area Objectives

Promoting access to scientific knowledge is an objective of ERA. In that respect, ESOF2010's purpose is consistent with ERA goals as it aimed to organise a meeting dedicated to scientific research and innovation.

### SaS Action Plan

The project was consistent with Action 19 related to the inauguration of public discussions and hearings on specific themes. In fact, ESOF2010 aimed to provide the possibility to discuss and debate on science, innovation and technology.

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## PROJECT RESULTS AND OUTCOMES

### Main achievements according to Project objectives

The 2010 edition of ESOF, held in Torino (Italy) from 2 to 7 July 2010, met or exceeded the objectives set out in the Description of Work:

- Concerning **objective 1**, 4 379 participants attended the conference. ESOF2010 attendance surpassed all previous ESOF editions. Attendees came from 71 countries and approximately 50% of them were "young researchers", i.e. under 35 years old.
- Concerning **objective 2**, communication activities focused on promoting the Scientific Programme, the Career Programme and the Science to Business Programme to attract a large number of submissions for the Call for Proposals. Once the programme was completed, the target became increasing the number of participants. Communication activities were also focused on the promotion of the School Programme and the Science in the City Programme amongst the general public.
- Concerning **objective 3**, the scientific quality and disciplinary, cultural and gender diversity of the speakers (among which were 5 Nobel laureates) were highlighted by participants. Results of the questionnaires distributed to ESOF2010 participants showed a high level of satisfaction and matched expectations. The new Science to Business programme, dedicated to the entrepreneurial world, was also very useful and innovative. Finally, WebESOF free web streaming allowed people from all over the world to follow selected sessions (4 000 WebESOF users).
- Concerning **objective 4**, the outreach programme ("Science in the City"), hosted mainly in the city centre, provided high quality information and entertainment to the general public (games, theatrical productions and conferences). These were appreciated by citizens and tourists, as well as by the attendees themselves.
- Concerning **objective 5**, ESOF2010's main funding came from Local Public Administrations and the Compagnia di San Paolo as funding partner, but an effort was made to foster private and international sponsorship. A professional fund-raiser was hired, who targeted 68 companies from various sectors and 16 private foundations. However, the fundraiser reported that all sponsorship requests had negative feedback due to a strong reduction in communication expenses, during the year in which ESOF2010 was organised and the risk of investing in an event with a too select public.

However, besides the missing dissemination activities mentioned in the section below, it is not possible to precisely detect any other unachieved activities on the basis of the collected documentation. As specified in the section below, there is no evidence that those activities were completed.

### Main achievements according to Programme objectives

As stated in the project objectives section and confirmed by project deliverables, the ESOF2010 project results are in line with the SiS objectives. In fact, the ambition of the project was to organise a conference to share and disseminate knowledge to a large variety of actors EU-wide, therefore increasing the visibility of European research and researchers and contributing to effective science communication to an EU wide public.

Moreover objective 3 of the project aimed to promote an open and free dialogue at the international level. As questionnaires were held, it can be stated that the project contributed to encourage active participation and expression of points of view on questions on science and research.

### Main achievements according to SiS Dimensions

The ESOF2010 project was in line with the Governance and Scientific Advice SiS dimension as it contributes to enabling a stronger public engagement in science and technology, as well as a better understanding of the place of science and technology in society through the discussion of several science and innovation themes during the conference.

## **DISSEMINATION AND ENGAGEMENT ACTIVITIES AIMED AT TRANSFERRING THE PROJECT RESULTS TO WIDER COMMUNITIES**

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One staff member and a full time consultant were in charge of communication activities. An external Press Agency was in charge of the press operations and advertising. During the Forum, a Press Office team was also made available in the onsite Media Centre.

ESOF2010 was presented to the press at the AAAs meeting and a promotional stand was organised at some fundamental scientific meeting (as AAAS meeting in February 2010 in San Diego).

Printed material was produced for the event: a Press kit, an ESOF2010 presentation dossier, an Institutional leaflet, a Leaflet dedicated to the general public. Multimedia tools were also made available: an ESOF2010 website, several ESOF2010 newsletters, an ESOF2010 database (37,000 contacts).

WebESOF free web streaming also allowed people from all over the world to follow selected sessions. During the conference, 4 000 users took advantage of this feature. In addition, all sessions were recorded and stored in a repository, making them available to everyone after the event.

However, there is no evidence that the following activities foreseen in the DoW were carried out:

- 20 Press briefings on 20 specific Scientific Programme sessions selected by the Communication Committee (ESOF Programme Highlights),
- 1 Press conference for the Career Programme,
- 1 Press conference for the Science to Business Programme,
- 1 Press conference for the WebESOF and Science in the city Programme.

## **PROJECT IMPACTS**

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### **Potential impact:**

ESOF2010 was expected to contribute to the development of an open competitive European Research Area by bringing together scientists from all over Europe and reinforcing a European Scientific Identity. ESOF2010 was also expected to contribute to bridging the gap between science and society by uniting in one geographical location leading scientists, young researchers, policy makers, business people, teachers, science museum/centre professionals and journalists.

- **Betweenness centrality:** ASSOCIAZIONE TORINO PER ESOF 2010 - TOPESOF did not participate to the specific programmes "Cooperation" in FP7.
- **Scientific attractiveness:** No highly ranked universities participated in the project.
- **Business attractiveness:** No highly ranked R&D investors participated in the project.

**Actual impact** as resulting from the project documents and/or commented during the interviews with project coordinators. Impacts can be clustered into four types:

- **Scientific impact:** No publications were produced in this project.
- **Social Media impact:** No social media tools were used.
- **Institutional and organisational impact:** The synergy developed between institutions collaborating in the organization of the event was expected to last and to enable the elaboration of a structured network for the diffusion of scientific culture.
- **Policy impact:** The Euroscience declaration addressed to the European Council and European Parliament, as well as all ESOF lectures, was made available. The event enabled efficient networking between policy makers and other stakeholders, which may enable better policy-making in the future.

## **PATH-BREAKING ADVANCEMENTS**

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No specific path-breaking advancement was identified.

## **BEST PRACTICES**

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No specific best practice was identified.

## **EU ADDED VALUE OF THE PROJECT**

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The EU partnership brought more visibility and more legitimacy to the event.

## PARTICIPANTS AND RESEARCH TEAM

### Participants

Number of participants: 1

Number of countries involved: 1

	Type	Country	Role	Previous participations in FP
ASSOCIAZIONE TORINO PER ESOF 2010 - TOPESOF	OTH	IT	Coordinator	1

### Team Composition

Team Size: 10 members

GENDER				
Female		Male		Unknown
60%		40%		0%
SENIORITY				
Average		Junior		Senior
10%		10%		80%
PhD				
No			Yes	
80%			20%	
BACKGROUND				
Applied Sciences	Health Sciences	Humanities & Social Sciences	Natural Sciences	Unknown
20%	0%	70%	10%	0%

\*The data are based on the analysis of the provided project's Description of Work.

## DELIVERABLES AND PUBLICATIONS

### Deliverables

DELIVERABLE NO.	DELIVERABLE NAME	DUE DATE OF DELIVERY (month)	ACTUAL SUBMISSION DATE: (month)
1	Minutes of Communication Committee and Communication Plan	2	2
2	First draft of Programme on line	2	2
3	4 newsletters sent	5	5
4	Minutes of Steering Committee	5	5
5	Guidelines for speakers and exhibitors	5	5
6	Programme book	5	5
7	Conference and exhibition communication material	6	6
8	Press clipping	9	9
9	Handover report ESOF2012 Dublin	10	10
10	Final report	11	11

### Related publications

No publications were produced in this project.

### MAIN SOURCES

ESOF2010 Description of Work  
ESOF2010 Final Report

## **REGULATING EMERGING ROBOTIC TECHNOLOGIES IN EUROPE: ROBOTICS FACING LAW AND ETHICS "ROBOLAW"**

**Framework Programme: FP7**

**Action line/Part: 5.1 A more dynamic governance of the science and society relationship**

**Activity: 5.1.1 Better understanding of the place of science and technology (S & T) in society**

**Area: 5.1.1.1. Research on relationships between science, democracy and law**

**Dimension: GOVERNANCE AND SCIENTIFIC ADVICE**

**Tool: Collaborative project**

**Project Call For Proposal: FP7-SCIENCE-IN-SOCIETY-2011-1**

**Status: Closed**

**Total cost: € 1 908 342.02**

**Total EU funding: € 1 497 966.00**

**Website: <http://www.robolaw.eu/>**

**Period: 01/03/2012 - 31/05/2014**

**Subjects: Innovation and Technology Transfer**

**Project ID and Acronym: ID: 289092, ACRONYM: ROBOLAW**

### **BACKGROUND AND CONTEXT OF THE PROJECT AND STRATEGIC NEEDS**

Human tendency towards 'human enhancement' is seen from ancient times, when mankind started constructing and using artefacts and tools to expand and extend their human abilities. Nowadays a field of technology known as robotics for biomedical research, such as nanotechnologies, bionics, and neural interfaces, as well as for innovative biomedical applications, such as biomechatronic prostheses, hybrid bionic systems and biomechatronic components for sensory and motor augmentation, calls for an in-depth investigation of its ethical, legal and moral implications, such as human enhancement and human teleoperation, or affecting issues, such as dual use, surveillance, or privacy. Regulations and law have to develop in order to follow emerging technologies, but an analysis of current hard and soft law in the field and in other relevant fields is required, in order to understand whether current legal and conceptual tools have the capacity to adapt to new and upcoming issues.

### **SPECIFIC PROJECT OBJECTIVES**

The ROBOLAW project **aimed at investigating how emerging technologies in the field of (bio)robotics may affect regulation, both in terms of hard and soft law.** In particular, the Consortium envisaged a thorough analysis of the current state-of-the-art of legislation and regulation pertaining to robotics, especially focusing on robotics connected to human enhancement. The goal of this survey was also to identify parts of hard and soft law in need for adjustments or updating. Furthermore, objectives of the project were the promotion of a framework for future robotics development, grounded on a balanced understanding of the interrelation between technical, ethical and legal norms in the field, and, on the other side, the formulation of regulatory guidelines to sustain European Commission in tackling current and future Robolaw issues.

The analysis envisaged by the project Consortium tackled the need to investigate further the interplay between the co-evolution of science and law in democratic contexts through legal provisions for creating and adapting governance rules to emerging science and technology. The principal interest of the SiS-2011-1.1.1.3 topic regards the emerging technologies in the fields of human enhancement, surveillance, dual-use and the project's objectives are relevant for this focus. The study also wanted to overcome the fragmentation in research, undertaking an a-territorial and transnational perspective.

#### **SaS/SiS Programme objectives/Activity Lines**

The objectives tend to the expansion and consolidation of the knowledge accumulated in history, philosophy and sociology of science in order to inform sound policies concerning the relationship between science and society.

#### **SaS Action Plan**

The objectives of the project partly overlap with those expressed by actions 35 (Improve practices in risk governance through networking), 36 (Establish guidelines on the use of expertise) and 37 (Create Internet based networks of scientists: Scientific Information for Policy Support in Europe).

### **PROJECT RESULTS AND OUTCOMES**

#### **Main achievements according to the project objectives**

The main achievements of the project were:

- The **arrangement of a workshop** entitled "Regulating Technological Development at the Intersection of Science and Law", which investigated, discussed and assessed the interplay between technical, legal and moral norms, both from a theoretical and empirical perspective. The workshop was a fruitful venue where the

Consortium managed to achieve the definition of the best balance between technical, ethical and legal norms and its findings were included in a book;

- The **analysis of current regulatory landscape pertaining to robotics**, taking into account existing regulation and several fields of its application, such as distinction between industrial and non-industrial robots, robotics and liability, intellectual property, privacy and data protection, and including three national case studies;
- The **formulation of a thorough taxonomy** of robotics and regulation related to robotics; definition of robot classes was made on the basis of criteria such as matter or embodiment, autonomy level, function, environment and interaction with humans; another classification was applied to formulate a taxonomy of human capabilities and the ways they can be affected by robotics; an ethical-philosophical analysis of human enhancement was also conducted;
- The **formulation of guidelines provided to European and national regulators** in order to deal with ethical and legal issues determined by robotics;
- The **engagement of a number of stakeholders**, through the arrangement of three meetings and the analysis of inputs from the stakeholders.

Progress of each WP including deliverables and associated milestones were delayed in some cases, in order to combine the production of a number of deliverables with relevant events such as publications of papers and workshops.

#### **Main achievements according to the programme objectives**

The project contributed to formulate a theoretical framework related to robotics and emerging technologies and their relationship with human enhancement, focusing in particular with the set of technological, ethical and legal norms regulating robotics at various levels. The research outcomes were also exploited to formulate regulatory guidelines relevant to the field, and in doing so the project contributed to achieve the impact envisaged by the Call SiS-2011.1.1.1.3, namely a better insight on the interactions between science and law in democratic contexts, and in helping European policy makers to better approach regulatory issues in the context of polycentric and multilevel governance in view of the next wave of innovations triggered by emerging sciences and technologies. The achievements of the project mirror the overall expected impact of the Programme for this type of actions, namely an improved contribution by research community to sustainable development/growth policies and preparation for future joint research; and the development of policy recommendations.

#### **Main achievements according to SiS Dimensions**

The ROBOLAW project was relevant for the SiS Governance and Scientific Advice dimension, although the survey is mainly addressing the relationship between scientific progresses in the field of (bio-)robotics and current and future regulations. The co-operation with civil society in the democratic governance of science, together with the engagement of civil society organisations in designing policies are a noticeable trend of the dimension but they are not detected in this project. However, the project participates in fostering the uptake of scientific advice in policymaking. Another focus of the project is on ethical implication of robotics, in particular as far as human enhancement is concerned, and for this reason the project is also partially relevant for the Science and Ethics dimension.

#### **DISSEMINATION AND ENGAGEMENT ACTIVITIES AIMED AT TRANSFERRING THE PROJECT RESULTS TO WIDER COMMUNITIES**

The Consortium launched a web platform, including news, information, summaries of deliverables and inventory of contacts. It was regularly updated during the period of life of the project and its exploitation is said to continue in the post-project period. One partner developed another webpage dedicated to the project. The dissemination activities were implemented according to the initial plan from the outset and continued after the end of the project, and they included:

- **Workshops/Conferences:** the project was presented in at least 28 national and international venues, such as "International Conference on Social Robotics" in Chengdu (2012); "SILFS Società Italiana di Logica e Filosofia della Scienza", in Milan (2012); "International Crime and Intelligence Analysis – ICAIC 2012", at the University College London; "ICRA International Conference on Robotics and Automation" in Karlsruhe (2013); "Summer School on Social Human-Robot Interaction", in Cambridge (2013); "Annual Conference of the International Bar Association", Workshop on 'I, robot: the interface between man and machines' in Boston (2013); "International Symposium on Robotics and Law: Toward the Society Living Together with Robots", Tokyo (2014); "Symposium Robotics: From Science Fiction to Ethical and Legal Issues", Thessaloniki (2014); among others. A number of conferences and workshops were also convened by the coordinator in order to implement a number of deliverables within the project;
- **Publications:** the number of publications resulted from RoboLaw is impressive, although no peer-reviewed article was published, due to time issues and to the fact that major journals in the field do not envisage this procedure in their edition process. Anyway, the partners presented over 20 articles in prestigious international journals, 14 contributions in edited books, one contribution in conference proceedings, edited 4

special issues of academic journals, edited 4 books within the newly established RoboLaw Book Series of the Pisa University Press, produced one PhD dissertation;

- **Public Outreach:** a number of articles, interviews, summaries and documentaries related to the project were published and released, including pieces on national widely distributed Italian newspapers, national journals such as "Focus", international journals such as "Huffington Post" "Wired" and "The National Geographic", and broadcasting by Rai1, BBC UK and BBC Russia;
- **Engagement with relevant stakeholders:** three meetings were convened in order to collect ideas and input from stakeholders, and at the same time enlarge the Consortium's network. The categories enlisted as relevant stakeholders was reduced during the period of life of the project, due to time issues.

## PROJECT IMPACTS

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The impact of ROBOLAW project was expected to be significant in presenting original and sound insights into the interactions between emerging technologies and law in democratic context, not only restricted to the field of robotics. In fact, the project's focus on robotics is reflected in several findings relevant only to the field, nonetheless many of the outcomes of the research, such as inventories of regulation, theoretical frameworks and methodologies, are applicable to other scientific and technological fields. The project was also expected to give a contribution in the process of rethinking regulation and multilevel governance of emerging science and technology, and providing relevant stakeholders with a sound analysis useful as a model for future work programmes in this area. All the partners of the Consortium showed a very high centrality (five among the top 5%, of whom four among the top 1%), and one academic institution included in the Consortium is well positioned in the Leiden Ranking (University of Reading ranks 206<sup>th</sup>).

The ROBOLAW project **actual impacts** can be classified into:

- **Scientific impact:** As reported in the last table of this document, the Consortium distributed an impressive amount of scientific knowledge in various national and international academic journals. It also edited a book series including four issues, and expected to last after the end of the project. That suggests a positive impact from the scientific point of view: the number of publications related to this project is above the average number of scientific outputs of SiS projects (0,5 publication per project).
- **Social media impacts:** There has been a very relevant social impact for this project both during its lifetime (300 social media listening buzz results) and in the post-project (866 posts). Twitter has been the most exploited media and the geographical coverage of the posts is noticeably wide, as shown in the figures below:

The Coordinator's expertise was also exploited within another EU funded project, Robot-Era<sup>52</sup>, and the collaboration is expected to continue beyond the end of lifetime of ROBOLAW.

## PATH-BREAKING ADVANCEMENTS

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None.

## BEST PRACTICES

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None.

## EU ADDED VALUE OF THE PROJECT

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The RoboLaw project implemented a wide-range research on the relationship between regulation and technology in the field of (bio)robotics. One crucial goal was that of reducing the fragmentation in research and formulate guidelines for the European Commission and for national policy makers in order to help their regulatory activities. This necessarily confers to the project a European dimension and the participation into EC funded programme enhanced a more effective outreach of the outcomes and wider engagement of relevant stakeholders.

## PARTICIPANTS AND RESEARCH TEAM

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### Participants

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<sup>52</sup> Robot-Era is a project funded under the EC 7<sup>th</sup> Framework Programme with the grant agreement number 288899. As the Consortium states, its main goal is «to design, implement and validate a set of robotic services for "ageing well", facing fundamental scientific and technological challenges on robotics and ambient intelligence, cognitive-inspired robot learning architectures, elderly user-needs, design for acceptability and legal/insurance regulations and standards for real deployment».



Number of participants: 5

Number of countries involved: 4

	Type	Country	Role	Previous participations to FP
SCUOLA SUPERIORE DI STUDI UNIVERSITARI E PERFEZIONAMENTO SANT'ANNA	HES	IT	Coordinator	68
UNIVERSITY OF READING	HES	GB	Participant	113
KATHOLIEKE UNIVERSITEIT BRABANT	HES	NL	Participant	45
LUDWIG MAXIMILIAN UNIVERSITY OF MUNICH	HES	DE	Participant	224
UNIVERSITY CLINICS CHARITE, HUMBOLDT UNIVERSITY	HES	DE	Participant	72

### DELIVERABLES AND PUBLICATIONS

DELIVERABLE NO.	DELIVERABLE NAME	DUE DATE OF DELIVERY (month)	ACTUAL SUBMISSION DATE: (month)
D2.1	Technical, Legal and Moral norms	4	12
D2.2	The connection between soft law/hard law and ethical self-regulation in the different fields actual title: Law and Technology: The Challenge of Regulating Technological Development	4	14
D3.1	Inventory of current state of RoboLaw	6	10
D3.2	A methodology to analyse existing legal provisions	4	5
D3.3	Opportunities and risks of robotics in relation to human values	12	12
D4.1	Taxonomy of robotics technology	8	14
D4.2	State-of-the-art in robotic research: case-studies from SSSA Laboratories	8	14
D4.3	Taxonomy of human capabilities in a world of robotics	10	12
D4.4	Robotics and constitutional rights and freedoms [Report on publication of the paper "Robotic Technologies and Fundamental Rights: Robotics challenging the European Constitutional Framework" in the International Journal of Technoethics]	12	13
D4.5	Legal aspects of enhancing human capacities through robotics and other technologies: an overview actual title: Rethinking Legal Frameworks on Capacity and Disability in Light of Human Enhancement and Robotics Report on papers for a special issue 'The Law and Ethics of Enhancing Human Capacities' of Law, Innovation and Technology	15	23
D5.1	An ethical-philosophical analysis of the technological state-of-the-art in human enhancement	9	11
D5.2	Neuro-technological interventions: Therapy or Enhancement?	6	12
D5.3	Construction of a 'Radical Embodied Cognition Thesis'	12	13
D5.4	Rethinking Legal frameworks on Capacity and Disability in Light of Human Enhancement and Robotics actual title: Techno-regulation and Robotics Technologies for Human Enhancement: An analysis of Behaviour Elicitation through Design	14	27
D5.5	Techno-regulation and Robotics Technologies for Human Enhancement: An analysis of Behaviour Elicitation through Design actual title: Methodology for identifying and analysing ethical issues in robotics research and applications	18	22
D5.6	A New Conceptualization of Justice in a World of Human Enhancement actual title: Investigating the Relationship between Future Technologies, Self and Society	20	29
D5.7	Investigating the Relationship between Future Technologies, Self and Society	21	—
D6.1	White Paper on Regulating Robotics actual title: Report on results from stakeholders meetings and questionnaires	21	29
D6.2	[Guideline on Regulating Robotics]	[27]	30
D6.3	[Regulatory Challenges of Robotics: Report on the paper "Regulatory Challenges of Robotics: Some Guidelines for Addressing Legal and Ethical Issues" for the journal Law, Innovation and Technology	[27]	29

DELIVERABLE NO.	DELIVERABLE NAME	DUE DATE OF DELIVERY (month)	ACTUAL SUBMISSION DATE: (month)
D7.1	RoboLaw General meeting	16	29
D7.2	RoboLaw Internet-based Information system	24	29
D7.3	Report on Public Events	24	29
D7.4	Roadmap for RoboLaw actual title: Final Plan for Using and Disseminating RoboLaw	21	29
D7.5	Final Plan for Using and Disseminating RoboLaw	24	---

Publications no.	PUBLICATION	LINK (when available)
1.	Bertolini A. (2013) 'Robots as Products: The Case for a Realistic Analysis of Robotic Applications and Liability Rules', <i>Law, Innovation and Technology</i> 5(2), pp. 214-247.	<a href="http://dx.doi.org/10.5235/17579961.5.2.214">http://dx.doi.org/10.5235/17579961.5.2.214</a>
2.	Schellekens, M. and P. Vantsiouri (2013) 'Patentability of Human Enhancements', <i>Law, Innovation and Technology</i> 5(2), pp. 214-247.	<a href="http://dx.doi.org/10.5235/17579961.5.2.190">http://dx.doi.org/10.5235/17579961.5.2.190</a>
3.	Gasson, M.N. and B.J. Koops (2013) 'Attacking human implants: a new generation of cybercrime', <i>Law, Innovation and Technology</i> 5(2), pp. 248-277.	<a href="http://epub.oeaw.ac.at/ita/ita-manuscript/ita_10_02.pdf">http://epub.oeaw.ac.at/ita/ita-manuscript/ita_10_02.pdf</a>
4.	Koops, B.J. and A. Pirni (2013) 'Preliminary Considerations. Special Issue Ethical and Legal Aspects of Enhancing Human Capabilities through Robotics', <i>Law, Innovation and Technology</i> 5(2), pp. 141-146.	<a href="http://dx.doi.org/10.5235/17579961.5.2.141">http://dx.doi.org/10.5235/17579961.5.2.141</a>
5.	Koops, B.J. (2013), 'A Normative Anthropology of Vulnerability. Review of Marck Coeckelbergh, <i>Human Being @ Risk</i> (Springer, 2013)', <i>Law, Innovation and Technology</i> 5(2), pp. 289-297.	<a href="http://dx.doi.org/10.5235/17579961.5.2.147">http://dx.doi.org/10.5235/17579961.5.2.147</a>
6.	Pirni A. and F. Lucivero (2013) 'The "Robotic Divide" and the framework of recognition: re-articulating the question of fair access to robotic technologies', <i>Law, Innovation and Technology</i> 5(2), pp.147-171.	/
7.	Koops, B.J., A. Di Carlo, L. Nocco, V. Casamassima & E. Stradella (2013), 'Robotic Technologies and Fundamental Rights: Robotics challenging the European Constitutional Framework', <i>International Journal of Technoethics</i> 4(2), pp. 15-35.	/
8.	Carnevale, A. and Bonino D. (2013) 'Testing Disabilities with Emerging Technologies', <i>Cosmopolis. Rivista di Cultura</i> , IX, 2, 2013	/
9.	Battaglia, F. and A. Carnevale (2014) 'Epistemological and Moral Problems with Human enhancement', <i>Humana.Mente - Journal of Philosophical Studies, Special Issue on 'Reframing the Debate on Human Enhancement</i> edited by Fiorella Battaglia and Antonio Carnevale 26, May, pp.III-XXI.	/
10.	Mukerji, N. and J. Nida-Rumelin (2014) 'Towards a Moderate Stance on Human Enhancement', <i>Humana.Mente - Journal of Philosophical Studies, Special Issue on 'Reframing the Debate on Human Enhancement</i> edited by Fiorella Battaglia and Antonio Carnevale 26, May, pp.17-34.	/
11.	Pirni, A. (2014) 'Towards a "Human Enhancement Society?" Opportunities for an Aristotelian Approach to Frame the Question', <i>Humana.Mente - Journal of Philosophical Studies, Special Issue on 'Reframing the Debate on Human Enhancement</i> edited by Fiorella Battaglia and Antonio Carnevale 26, May, pp.239-252.	/
12.	Salvini, P. (2014) 'Human Presence and Robotic Mediations: an Alternative Framework for Explicating Human Enhancement', <i>Humana.Mente - Journal of Philosophical Studies, Special Issue on 'Reframing the Debate on Human Enhancement</i> edited by Fiorella Battaglia and Antonio Carnevale 26, May, pp.253-270.	/
13.	Bisol, B., Carnevale A., and Lucivero, F. (2014) 'Diritti umani, valori e nuove tecnologie. Il caso dell'etica della robotica in Europa', <i>Metodo. International Studies in Phenomenology and Philosophy</i> Vol. 1, issue 2, pp. 235-252.	/

Publications no.	PUBLICATION	LINK (when available)
14.	Michelini F. (2014) 'Becoming Machine. Cyborg and Human Nature Models', <i>Verifiche. Rivista di scienze umane</i> , XXXIII	/
15.	Leenes R. and Lucivero F.(2014) 'Laws on robots, laws by robots, laws in robots: regulating robots' behaviour by design' in <i>Law Innovation and Technology</i> 6 (2), 194-222.	/
16.	Palmerini E. (2015) 'A legal perspective on body implants for therapy and enhancement'. <i>International Review of Law Computers &amp; Technology</i> Vol. 29.	/
17.	Bertolini, A. (2015) 'Robotic prostheses as products enhancing the rights of people with disabilities. Reconsidering the structure of liability rules'. <i>International Review of Law Computers &amp; Technology</i> Vol. 29.	/
18.	E. Stradella, P. Salvini, A. Pirni, A. Di Carlo, P. Dario, E. Palmerini, 'Robot Companions as Case-Scenario for Assessing the "Subjectivity" of Autonomous Agents. Some Philosophical and Legal Remarks' ECAI 20th European Conference on Artificial Intelligence, 1st Workshop on 'Rights and Duties of Autonomous Agents', Montpellier (France) 2012	/
19.	Palmerini E. and Stradella E. (2013) (eds.) <i>Law and Technology. The Challenge of Regulating Technological Development RoboLaw Series 1</i> , Pisa: Pisa University Press, 2013	/
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## **EUROSCIENCE OPEN FORUM 2012 "ESOF2012"**

**Framework Programme: FP7**  
**Action line/Part: 5.3 Science and society communicate**  
**Activity: -**  
**Area: -**  
**Dimension: Governance and Scientific Advice**  
**Tool: Coordination and support action**  
**Project Call For Proposal: FP7-Adhoc-2007-13**  
**Status: Closed**  
**Total cost: € 1 099 200**  
**Total EU funding: € 599 000**  
**Website: Website no longer available**  
**Period: 02/02/2012 - 01/12/2012**  
**Subjects: Scientific Research - Social Aspects**  
**Project ID and Acronym: 320130 - ESOF2012**

### **BACKGROUND AND CONTEXT OF THE PROJECT AND STRATEGIC NEEDS**

Created by Euroscience, ESOF – Euroscience Open Forum – is a biennial pan-European meeting dedicated to scientific research and innovation. At ESOF meetings, leading scientists, researchers, business representatives, entrepreneurs and innovators, policy makers, science and technology communicators and the general public from all over the world discuss new discoveries and debate the direction that research is taking in the sciences, humanities and social sciences. ESOF is unique in that it is both international and multidisciplinary.

ESOF provides an opportunity to present and discuss the frontiers of scientific and technological research in Europe, to contribute to the development of a European Scientific Identity, to bridge the gap between science and society and to stimulate policies to support scientific research.

### **SPECIFIC PROJECT OBJECTIVES**

#### **Project objectives**

ESOF2012 was an interdisciplinary, pan-European meeting, held under the auspices of Euroscience, which aimed to showcase the latest advances in science and technology, promote a dialogue on the role of science and technology in society and public policy, stimulate and provoke public interest, excitement and debate about science and technology.

ESOF2012 was expected to bring together 5 000 scientists, business leaders, government officials and international media to discuss the best European science and address all of the major global issues, including energy, climate change, food and health.

The key objectives linked to the promotion and communication of ESOF2012 were:

- **Objective 1:** to attract a large number of participants (5 000 participants expected).
- **Objective 2:** to attract sponsors and enhance fundraising activities.
- **Objective 3:** to strengthen the communication actions to encourage the registration to ESOF2012.
- **Objective 4:** to create a suitable environment for the encounter and the exchange between scientists, teachers and students, researchers and politicians, journalists and business people, thus promoting an open and free dialogue at the international level and offering the most advanced communication instruments.
- **Objective 5:** to promote research activities for science, innovation and technology in Ireland.

#### **SaS/SiS Programme objectives/Activity Lines**

The objective of ESOF was to organise a meeting dedicated to scientific research and innovation attracting a wide range of stakeholders. The objectives of ESOF2012 were therefore consistent with the SiS objective of enabling a better understanding of the place of science and technology in society.

Moreover, the organisation of an open forum on science with the consequent development of a communication plan, improved the dialogue with media and allowed the exchange of best practices between scientists and media professionals.

#### **Innovation Union Objectives**

Spreading the benefits of innovation across the Union is an objective of the Innovation Union. In that respect, ESOF2012's purpose was consistent with the Innovation Union objectives as it aimed to organise a meeting dedicated to scientific research and innovation.

#### **European Research Area Objectives**

Promoting access to scientific knowledge is an objective of ERA. In that respect, ESOF2012's purpose is consistent with ERA goals as it aimed to organise a meeting dedicated to scientific research and innovation.

### **SaS Action Plan**

The project consisted in the development of an open forum on science Europewide which contributed to the plan on involving civil society in activities and ensuring greater coordination for prospective activity (Action 28).

## **PROJECT RESULTS AND OUTCOMES**

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### **Project outcomes**

On the basis of a review of the outcomes of ESOF2012, hosted in Dublin from 11 – 15 July 2012, the project can be considered a success:

- Concerning **objective 1**, 4 494 delegates from more than 75 countries attended the forum. 162 sessions were organised by 660 Speakers, including 5 Nobel Laureates. 472 accredited media from 47 countries covered the event.
- Concerning **objective 2**, the Partnership strategy for ESOF2012 was developed with the support of a Fundraising Committee and an external Sponsorship Adviser. A strategy of three tiers of partnerships – Platinum, Gold and Silver - was adopted and price points were set at EUR 100K, EUR 50K and EUR 25K respectively. The overall partnership for ESOF2012 was in line with expectations, with a final number of 22 partners, providing substantial financial and in-kind support for the programme.
- Concerning **objective 3**, the ESOF 2012 project team adopted a through-the-line marketing strategy, both having a very broad reach and targeting specific groups of individuals, to aid in the promotion of the event and raise exposure for ESOF 2012. The main marketing priorities were aimed at ensuring a wide spectrum of topics covered during the event through the recruitment of speakers, maximizing the number of registered participants and raising awareness of ESOF 2012's objectives. Throughout the period, focus was placed on the communication with stakeholders, investors and partnering organisations in order to maximise cross marketing and sponsorship opportunities. A media relations team was also established for the ESOF2012 event.
- Concerning **objective 4**, a Social programme was prepared to ensure that delegate experience would be socially, culturally and intellectually invigorating. Social events such as ceremonies, parties, dinners, informal meetings with distinguished professors and media networking events were held.
- Concerning **objective 5**, the Dublin team decided to extend the "Science in the City" programme across the entire year and the city was declared the City of Science 2012. Over the course of the year a Public Engagement Programme consisting of over 200 public engagement science-themed activities was organised throughout Ireland, delivered by third parties. The City of Science 2012 Festival was organised in parallel to ESOF 2012 that showcased the best of Irish culture, arts and science.

On the basis of the collected information, missing activities were not identified.

### **Main achievements according to Programme objectives**

As stated in the project objectives section and confirmed by a review of project deliverables, the ESOF2012 project results are in line with the SiS objective of enabling a better understanding of the place of science and technology in society. The ambition of the project to organise an open European forum on science contributed to spread knowledge and create dialogue among citizens EU wide. Debates and discussions were open to experts and to the general public. Other than reinforcing public interest on science, the project also encouraged public and active participation. Although the project contributed to greater visibility of European research and researchers, it does not seem that this happened by bringing together the experience and tools of science centres and museums.

### **Main achievements according to SiS Dimensions**

The ESOF2012 project was in line with the Governance and Scientific Advice SiS dimension as it contributed to enabling a stronger public engagement in science and technology. More specifically, the project reunited over 4 000 delegates from 75 countries to discuss and exchange on different themes related to science. It also included policy makers and therefore, it strengthened and improved European science systems and helped up taking scientific advice in policymaking.

## **DISSEMINATION AND ENGAGEMENT ACTIVITIES AIMED AT TRANSFERRING THE PROJECT RESULTS TO WIDER COMMUNITIES**

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Media partnerships ensured national and international coverage of the ESOF 2012 conference. The ESOF 2012 Communications Team worked with both international and national media partners (472 accredited media from 47 countries) to ensure efficient coverage.



Science Ambassadors were also selected in order to represent the scientific community in a way that the general public could relate to.

An ESOF 2012 website was developed for the event. Social media networks such as Facebook, Twitter and LinkedIn were monitored to cultivate an online community to advocate and promote ESOF 2012 and Dublin City of Science 2012. The overall online community grew to 8 301 users.

On the basis of the Final Report, it does not seem that there has been any missing activity.

## **PROJECT IMPACTS**

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### **Potential impact of the project**

ESOF2012 was presented as an exciting and vibrant showcase for the best of European research and was expected to firmly establish the meeting as the premier European meeting on research and research policy. The 2012 edition was also expected to support the development of the European Research Area by helping create a greater sense of European identity for European research and researchers and providing a positive representation of European research outside Europe.

- **Betweenness centrality:** FORFAS did not participate to the specific programmes "Cooperation" in FP7.
- **Scientific attractiveness:** No highly ranked universities participated in the project.
- **Business attractiveness:** No highly ranked R&D investors participated in the project.

**Actual impact** as resulting from the project documents and/or commented during the interviews with project coordinators. Impacts can be clustered into four types:

- **Scientific impact:** The consortium built the ESOF 2012 event around the Dublin in Science programme for 2012 which enabled promotion of the event with the general public throughout the year, creating a build up for the event. Engagement with hundreds of thousands of individuals from the public throughout the year increasing the interest in all aspects of science. The INSPIREfest in Dublin was inspired by the ESOF 2012 project, Europe's leading sci-tech and Arts festival
- .
- **Social Media impact:** Social media networks such as Facebook, Twitter and LinkedIn were monitored to cultivate an online community to advocate and promote ESOF 2012 and Dublin City of Science 2012. The overall online community grew to 8 301 users.
- **Institutional and organisational impact:** ESOF2012 supported the development of the European Research Area by enabling efficient networking between scientists, teachers and students, researchers and politicians, journalists and business representatives, etc. This can be expected to contribute to a greater and deeper level of cooperation in the future. The success of ESOF2012 also paved the way for the organisation of the next edition of the event, ESOF2014, in Copenhagen.
- **Policy impact:** Science policy was a major theme in ESOF2012 (i.e. a Keynote Address by Máire Geoghegan-Quinn, European Commissioner for Research, Innovation and Science). Discussions during the event, as well as networking between policy makers and others stakeholders directly contributed to on-going policy reflection.

## **PATH-BREAKING ADVANCEMENTS**

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The ESOF 2012 project was considered to be path breaking since it had considerable scientific impact. The project was considered to be innovative since it built the event around a national programme which therefore enabled significant momentum to be gained with the general public to raise interests in science.

## **BEST PRACTICES**

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The project demonstrated best practice since it ensured effective coordination with past ESOF projects in order to gain best practices and lessons learnt in the organisation of the event.

## **EU ADDED VALUE OF THE PROJECT**

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The EU partnership enabled event organisers to bring more visibility and more legitimacy to the event.

## **PARTICIPANTS AND RESEARCH TEAM**

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### **Participants**

Number of participants: 1

Stock-taking and meta-analysis of Science in Society projects throughout FP6 and FP7  
Final Case Studies

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Number of countries involved: 1

	Type	Country	Role	Previous participations in FP
FORFAS	REC	IE	Coordinator	1

### Team Composition

Team Size: 12 members

GENDER				
Female		Male		Unknown
67%		33%		0%
SENIORITY				
Average		Junior		Senior
42%		16%		42%
PhD				
No			Yes	
83%			17%	
BACKGROUND				
Applied Sciences	Health Sciences	Humanities & Social Sciences	Natural Sciences	Unknown
8%	0%	50%	25%	17%

\*The data are based on the analysis of the provided project's Description of Work.

### DELIVERABLES AND PUBLICATIONS

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#### Deliverables

DELIVERABLE NO.	DELIVERABLE NAME	DUE DATE OF DELIVERY (month)	ACTUAL SUBMISSION DATE: (month)
D1.1	Final programme online	1	5
D1.2	Programme book printed	5	5
D2.1	Opening of registrations	1	5
D2.2	Final steering committee minutes	4	6
D2.3	Final report	10	10
D3.1	Communications plan	2	6
D3.2	5 Newsletters (monthly February – June)	5	5
D3.3	5 Newsletters (monthly May - September)	8	5
D3.4	Press clippings	9	5

#### Related publications

No publications were produced in this project.

### MAIN SOURCES

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ESOF2012 Description of Work  
ESOF2012 Final Report  
Interview to Eamonn CAHILL



## **NEURO-ENHANCEMENT: RESPONSIBLE RESEARCH AND INNOVATION – "NERRI"**

**Framework Programme: FP7**

**Action line/Part: 5.1 A more dynamic governance of the science and society relationship**

**Activity: 5.1.2 Broader engagement to anticipate and clarify political, societal and ethical issues**

**Dimension: GOVERNANCE AND SCIENTIFIC ADVICE**

**Tool: Coordination and support action**

**Project Call For Proposal: FP7-SCIENCE-IN-SOCIETY-2012-1**

**Status: -**

**Total cost: 3 783 867.55 €**

**Total EU funding: 3 312 430.35 €**

**Website: <http://www.nerri.eu/eng/home.aspx>**

**Period: 01/03/2013 – 29/02/2016**

**Subjects: Scientific Research**

**Project ID and Acronym: 321464, NERRI**

### **BACKGROUND AND CONTEXT OF THE PROJECT AND STRATEGIC NEEDS**

In the 21st century, human evolution is set in the context of a socio-technical environment whose continuous development seriously challenges prior assumptions about what it means to be human. The unprecedented pace of technological innovation presents great opportunities for the development and enhancement of human capabilities, particularly those of a cognitive nature. In the current era of time, medicine has reached a crucial turning point at which it becomes possible to not only restore health but also to improve upon normal behavioural functioning. Research into novel therapies is likely to produce more non-therapeutic innovation and future treatments may even provide benefits that surpass what is considered to be 'normal' or 'healthy', blurring the line between dis-ability and super-ability. In that sense, Neuro-Enhancement (NE) comprises the use of neurotechnologies (e.g. psychotropic drugs or brain-stimulation devices) to improve cognition and/or behavioural functioning. These developments come with great challenges and a normative framework for responsible research and innovation (RRI) underpinning the governance of Neuro-Enhancement technologies. A responsible European regulatory framework for these developments must be grounded in a broad public debate and be consistent with the Charter of Fundamental Rights of the European Union. A specific challenge is that in this contested field, it is hardly possible to disentangle social, legal and ethical questions concerning Neuro-Enhancement technologies. Evaluation and analysis of these issues needs to go beyond a mere consideration of their implications. Instead, the issues need to be incorporated into the early phases of science and research agenda setting, the identification of priorities and policies, and subsequent technology engineering, in order to ensure the successful, sustainable and responsible development of enhancement technologies. This is one of the key strategic objectives of the NERRI project.

### **SPECIFIC PROJECT OBJECTIVES**

NERRI was a three-year project and aimed at ensuring that technological research and innovation in the field of NE proceed in ethically acceptable and socially desirable directions.

The following specific project objectives were defined in the Description of Work (DoW):

- Map the scientific, technological and societal drivers of Neuro-Enhancement drawing on insights from other EU projects, e.g. EPOCH, ENHANCE, Technolife;
- Prepare, stimulate and mobilize multi-stakeholder dialogues on Neuro-Enhancement and devise strategies for the management of a plurality of views, needs, expectations and fears in relation to Neuro-Enhancement within societies and between Member States;
- Through stakeholder engagement identify specific problems both at the level of individual enhancement technologies and pertaining to the topic in general, which require policy attention, regulation action and a respective follow-up;
- Develop a best practice manual for Mobilisation and Mutual Learning (MML) and the achievement of Responsible Research and Innovation (RRI), taking into account fundamental European values.

The NERRI project is understood as a contribution to the further development of the European Research Area, by introducing RRI principles and by engaging scientists, policy-makers, industry, civil society organisations and the wider public in Mutual Learning Activities in the emerging science and research area Neuro-Enhancement. The NERRI project is as well positioned as relevant for the Innovation Union. This is not spelled out in much detail, but explicit references are made in the Description of Work (DoW). For instance, it is explained in the DoW that by implementing the MML practice at different policy levels, a contribution will be made towards RRI and the Innovation Union.

### **SaS/SiS Programme objectives/Activity Lines**

The activity line objectives of the European Commission regarding governance dimension are the following:

- (i) Improve the integration of society's aspirations and concerns, and fundamental ethical principles in research policy;
- (ii) Encourage public engagement and the participation of civil society organisations throughout the research process, creating a more constructive environment for researchers and for society as a whole;
- (iii) Implement open governance of science in themes of concerns for civil society;

At the core of the NERRI project are Mutual Learning Exercises and Mutual Learning Events, as called for under SiS.2012.1.2-1: Mobilisation and Mutual Learning (MML) Action line: mainstreaming FP7-SiS actions in research in the **FP7-SiS Work Programme**. Over the course of the NERRI project, MLEs have been conducted with the aim of bringing together various groups of stakeholders to facilitate a mutual learning process through mutual exposure of positions, views and experiences, expectations and concerns. Innovative methods have been employed for in-depth dialogues that move beyond traditional 'experts vs. lay audience' roles, allowing participants to mutually probe and scrutinize each other's views.

The NERRI project contributed to the first objective of the activity line to integrate society's aspirations and concerns by preparing and stimulating towards new sustainable and responsible development of enhancement technologies. With the participation of civil society organizations which took part throughout the research project NERRI contributed to the second objective of the activity line.

Finally, with the mobilization and mutual learning activities and the manual of the NERRI project, it contributed to the third objective of implementing open governance.

### **SaS Action Plan**

With regard to the **Science and Society Action Plan**, the NERRI project primarily aims at Action 30: „An open dialogue will be established between NGOs, industry, the scientific community, religions, cultural groups, philosophical schools and other interested groups, stimulating an exchange of views and ideas on a range of critical issues, such as the ethical impact of new technologies on future generations, human dignity and integrity, 'infoethics' and sustainability. A variety of mechanisms will be used (focus groups, polling exercises, e-debates, workshops or institutionalized forums etc.)". Mobilizing relevant actors and involving new stakeholders is an objective throughout various WPs as described in the DoW: WP2 starts with a reconnaissance of the field of NE and the mobilisation of scientists and other stakeholders. WP3 will stimulate and organize a broad societal dialogue employing state-of-the-art engagement methodologies tailored to specific issues and stakeholders. WP4 will synthesize the national experiences, map the contours of a normative framework as it emerges from societal engagement and dialogue and elaborate the concept of RRI in Europe.

It also addresses Action 35 improving practices in risk governance through networking: Controversial issues that may lead into conflict has also been taken into account on the NERRI project. For instance, by discussing the value of protecting human health potentially in conflict with the value of autonomy, considering that different individuals may have different perceptions of the risks and benefits of different neuroenhancing interventions.

In relation to action 36 of the SaS Action Plan for establishing guidelines on the use of expertise different protocols as well as a best practice manual for Mobilisation and Mutual Learning (MML) and the achievement of Responsible Research and Innovation (RRI) have been issued.

### **PROJECT RESULTS AND OUTCOMES**

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With regard to the project objectives defined in the DoW, NERRI has achieved relevant results and produced the desired outcomes:

- As a first step towards structuring the debate, a classification of NE technologies has been developed based on whether they are currently available, experimental or hypothetical innovations. The state of the art in NE research, of the public debate and the identification of relevant stakeholders have been summarised in a Briefing Paper.
- Formats and tools for MML activities have been developed for interaction between scientists, policy makers, industry, civil society groups, patients and the wider public. These were specifically tailored to managing the diversity of opinions, hopes and fears related to NE technologies.
- Guidelines and assessment criteria were developed for Mutual Learning Exercises.
- 60 MLEs were organised, reported and analysed in the different partner countries. This number well exceeds the originally planned 45 MLES. Many different formats were employed, such as focus groups, science cafés, dinner debates, role-playing sessions, movie debates, long term involvement of students, etc. The number of participants varied between 9 and 1200, but most events involved 20 to 50 participants.

### **Main achievements according to Programme objectives**

Through the development and testing of a variety of Mutual Learning Event (MLE) formats, NERRI contributed directly to meeting objectives of the **FP7-SiS Work Programme**, especially with regard to Activity 5.2.1 "Broader engagement to anticipate and clarify political, societal and ethical issues". It is specified here that Mobilisation and

Mutual Learning activities need to be initiated at different stages of the research and innovation process to proactively establish partnerships between different actors with complementary knowledge and experience. NERRI has helped to shed light on some of the more specific questions and issues in the field of Neuro-Enhancement, e.g. regarding socio-ethical issues in research agendas, the readiness of society to deal with Neuro-Enhancement developments, and impacts on policy-decision making – while constantly bearing in mind the implications for fundamental values such as human dignity, equality, individual freedom and solidarity.

NERRI partners planned local and national activities but also international activities organized in collaboration with others partners of the NERRI Consortium, often involving external Institutions and several stakeholders with the aim to increase the visibility within not only the world of researchers but also civil society.

The expected impact was described in the programme as increased participation and engagement in research activities by civil society; strengthened governance and networks in science and ethics-related issues; implementation of the European Union Sustainable Development Strategy and Energy and Environment-related Technology Platforms. Even though NERRI has strengthened participation, engagement and networks it might have had less impact on the European Union Sustainable Development Strategy and Energy and Environment-related Technology Platforms as neuro-enhancing innovations are outside of the focus of both the environmental as well as the sustainability discourse.

### **Main achievements according to SiS Dimensions**

With regard to the **Science Governance and Scientific Advice/RRI dimension**, the NERRI project can be seen as inspired by, or the result of policy and programme evolution in this dimension so far. At the same time it contributes to the development of governance and scientific advice by conceptualising and implementing mutual learning. It is acknowledged in the project reports that the NERRI project builds on more than a decade of European Union Science and Society projects as well as national efforts towards more participatory, democratic, deliberative, and anticipatory forms of science, research and innovation policy governance. The more recent vision of Responsible Research and Innovation is firmly embedded in the NERRI project design and MML activities are being developed in the project, with the explicit aim of contributing to the development of a framework for RRI, “to give meaning to RRI and show what this concept means in practice”. In line with more recent conceptualizations of RRI in other FP7-SiS projects, the Mutual Learning Events implemented in the NERRI project are based on the understanding that stakeholder engagement should not be limited to the dissemination or transfer stage of the knowledge production process. This builds on the conviction that due to the complexity of contemporary knowledge production, a manifold of potential impacts of research and innovation are beyond the scope of specific groups of experts, and that therefore well-designed processes of deliberation and exchange of knowledge among multiple stakeholder groups are needed. Stakeholders should thus be seen as participants in processes of the co-design of knowledge and to that end Mutual Learning Events have been developed in the NERRI project that enable partnerships between various stakeholders, such as researchers in different disciplines, experts from industry and experts from civil society organisations.

### **DISSEMINATION AND ENGAGEMENT ACTIVITIES AIMED AT TRANSFERRING THE PROJECT RESULTS TO WIDER COMMUNITIES**

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Dissemination activities constituted a major aspect in the NERRI project. Especially Work Package 5 aimed at maximizing the impact of the project outcomes by communicating project activities and findings throughout the European Union and over the lifetime of the project. In order to raise societal awareness of the activities of the NERRI project, to promote interest in the scientific and societal aspects of Neuro-Enhancement and to foster an informed debate about what Responsible Research and Innovation in this area could look like in the future, a number of communication activities have been implemented:

- A project website has been built: <http://www.nerri.eu/eng/home.aspx>;
- A regular newsletter has been circulated among interested stakeholder groups;
- Nerri project activities have been piggy-backed at relevant conferences to reach the scientific communities and at science festivals to engage with multiple publics of science
- A European conference has been held involving the European commission, the European parliament, high-level policy-makers from member states and key stakeholders;
- Guidelines and recommendations for best practices in the emerging field of neuro- enhancement have been made publicly available.

In the Description of Work (DoW) the publication of Special Issues in scientific journals has also been foreseen, in order to maximize impact and dissemination in relevant scientific communities. While there have been a number of individual scientific publications achieved in the NERRI project, no dedicated Special Issue could be launched during the project duration. With that exception NERRI seems to have managed to accomplish all expected dissemination activities.

### **PROJECT IMPACTS**

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As outlined in the DoW, the NERRI project aimed at achieving the following impacts: (1) laying the foundation of a road map towards the implementation, at national and European Union level, or MML activities regarding Neuro-

Enhancement; (2) societal embedding of Neuro- Enhancement within national and European Union policies; (3) promotion of MML activities and RRI within the networks of the cognitive/ neuroscientists involved in the consortium.

It can be assumed that the **potential impact** of the NERRI project is relatively high. The output analysis has shown that 11 of the 18 project participants are among the top 5% of the most central organizations in the overall FP network, 3 participants even belong to the top 1%. This implies that activities by these project participants regarding the dissemination of NERRI project results are highly relevant.

### Actual Impact

- The **scientific impact** of results from the NERRI project can be assumed to be meaningful. In various project reports it has been emphasized that NERRI is not a conventional research project, but rather focused on developing MML activities and exploring an emerging societal deliberation arena in the field of Neuro-Enhancement. At the core of the project, i.e. as concrete MLEs, was the production of rather qualitative and explorative results. However, it was decided among the project participants that nonetheless NERRI outcome should, wherever possible, be presented in academic publications. This has been done quite successfully (see list of publications) and, according to the Leiden Ranking that evaluates the attractiveness of a university, five project participants are evaluated in the Leiden Ranking to have the potential of producing publications with a relatively high quality and strong impact.
- With regard to the project's **social media impacts**, the results look rather mixed. A comprehensive website has been set up that contains a broad range of information about the project and its result. The envisaged social media communication strategy, however, seems to have been less successful. Apart from 104 Tweets, 5 video posts on YouTube and a few blog entries and news items, the NERRI project shows a close to zero buzz collection and almost no social media mentions. A majority of the recorded social media posts originate in the UK (40%), followed by Spain (13%) and Italy and Portugal (both roughly around 10%). Still, meaningful impact has been achieved by the large number of Mutual Learning Events (MLEs) conducted in different countries and involving various stakeholders. In that context guidelines and best practice recommendations have been developed that will benefit Mutual Learning Activities regarding the emerging Neuro-Enhancement science, research and innovation sector beyond the duration of the NERRI project.
- One aim of the NERRI project was to create **institutional impact** by facilitating the implementation of continuous communication activities regarding Responsible Research and Innovation in the field of Neuro-Enhancement, where mutual learning among scientists, industry representatives, public policy-makers and civil society actors can continue. This was, for example, achieved by institutionalizing Neuro-Enhancement public communication actions at the Roskilde Science Festival and other Science Festivals and Events across Europe.
- The **policy impact** of NERRI is difficult to determine, but is potentially crucial. Since the debate about Neuro-Enhancement is characterised by very different levels of knowledge even among scientists and other experts in the field, a very large variability in public opinion (if at all existing) and strongly intertwined with larger socio-ethical questions, NERRI has been an important step towards systematically assessing this emerging field, which will most likely become critical for policy-making in the near future and raises many contested issues. Especially with a view to fostering governance in line with RRI principles, the NERRI project offers rich experiences with innovative MML formats and has involved policy-makers and Commission representatives at project meetings and events.

### PATH-BREAKING ADVANCEMENTS

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The NERRI project has produced two relevant advancements with regard to Responsible Research and Innovation in the field of Neuro-Enhancement. First, NERRI has helped to add precision, resolution, nuance and detail to the deliberative mapping of the emerging Neuro- Enhancement debate, enabling and inviting future participants in the debate to take position. In this highly contested field it can be argued that this is an important advancement and an important shift of focus – away from very straightforward, quantitative recommendations – towards a deliberative processes needed to assess and evaluate technological innovation against the background of fundamental values and socio-ethical concerns. Second, the NERRI project has developed Mutual Learning Events (MLEs) as an important tool and methodology to deal with the challenges of such deliberation processes in practice. While there may be broad agreement about the importance of fundamental values and human rights, they are often articulated differently in various contexts and it is rarely evident how certain values should be applied, to whom, and when in a specific social context.

Some elements of the NERRI project can be regarded as good practice that may become relevant for other projects. For instance, an effort has been made to produce insights on RRI implementation in the field of Neuro-Enhancement that can be transferred to other emerging science and technology areas and RRI implementation in general. MLEs as a key methodology of fostering RRI in science, research and innovation has been analysed and reported on. The consortium of the FP7-SiS funded RRI-Tools Project selected the NERRI project, for example, as one of the five best practice cases related to RRI implementation in European Science, Research and Innovation.

## BEST PRACTICES

None.

## EU ADDED VALUE OF THE PROJECT

A decidedly European perspective was crucial for the success of the NERRI project, because even though there is a general agreement of fundamental values relevant in the debate about Neuro-Enhancement, there are crucial differences in specific value preferences, levels of knowledge etc. across the European Union and beyond. Similarly, with regard to Mutual Learning Events, (MLEs) it became obvious that there are very different traditions of public discourse in different member states, to which the methodology needed to be adapted to. In order to arrive at a bigger European picture, a cross-European comparative analysis and collaboration was crucial.

## PARTICIPANTS AND RESEARCH TEAM

### Participants

Number of participants: 18

Number of countries involved: 11

	Type	Country	Role	Previous participations to FP
Ciencia Viva – Agencia Nacional para a Cultura Cientifica e Tecnologica	OTH	PT	Coordinator	10
Radboud University Nijmegen	HES	NL	Participant	264
King's College London	HES	GB	Participant	291
Johannes Gutenberg Universitaet Mainz	HES	DE	Participant	59
Universitaet Stuttgart	HES	DE	Participant	233
Katholieke Universiteit Brabant	HES	NL	Participant	45
Universitaet Linz	HES	AT	Participant	69
Haskoli Islands	HES	IS	Participant	47
Universitat Pompeu Fabra	HES	ES	Participant	140
London School of Economics and Political Science	HES	GB	Participant	100
Scuola Internazionale Superiore di Studi Avanzati di Trieste	HES	IT	Participant	41
Oesterreichische Akademie der Wissenschaften	REC	AT	Participant	70
Genetic Alliance UK Ltd	OTH	GB	Participant	5
Kozep-Europai Egyetem	HES	HU	Participant	62
Instituto de Biologia Molecular e Celular – IBMC	REC	PT	Participant	20
Fondazione Toscana Life Sciences	REC	IT	Participant	2
Center for Formidling af Naturvidenskab og Moderne Teknologi Fond	OTH	DK	Participant	6
The European Brain Council AISLB	OTH	BE	Participant	3

### Team Composition

Team Size: 45 members\*

GENDER		
Female	Male	Unknown
44%	56%	0%
SENIORITY		
Average	Junior	Senior
2%	2%	96%

Stock-taking and meta-analysis of Science in Society projects throughout FP6 and FP7  
Final Case Studies

PhD				
No		Yes		
27%		73%		
BACKGROUND				
Applied Sciences	Health Sciences	Humanities & Social Sciences	Natural Sciences	Unknown
6,67%	13%	60%	18%	2%

\*The data are based on the analysis of the provided project's Description of Work.

### DELIVERABLES AND PUBLICATIONS

DELIVERABLE NO.	DELIVERABLE NAME	DUE DATE OF DELIVERY (month)	ACTUAL SUBMISSION DATE: (month)
D1.1	Report on Kick-Off Meeting	1	-
D1.2	Report on the First Consortium Meeting	9	-
D1.3	Report on the Second Consortium Meeting	18	-
D1.4	Report on the Third Consortium Meeting	25	-
D1.5	Report on the Fourth Consortium Meeting	30	-
D2.1	Interview Protocol	2	-
D2.2	Briefing paper on Neuro-Enhancement and European normative anchor points	6	-
D2.3	Briefing paper: National and European perspectives of stakeholders	6	-
D2.4	Technical Report	8	-
D2.5	Briefing paper for Consortium Meeting	8	-
D3.1	Methodologies and formats for MML exercises in partner countries	9	-
D3.2	Assessment criteria for individual MML exercises	9	-
D3.3	Progress report	18	-
D3.4	Briefing paper	25	-
D3.5	Semi-structured forms presenting the results of mutual learning exercises	26	-
D4.1	Implementation Plan	29	-
D4.2	Concept for a sustained Deliberative Stakeholder Platform	34	-
D5.1	Dissemination Plan	2	-
D5.2	Report on European main stakeholders mailing list and set of communicative recommendations	12	-
D5.3	Report on European main stakeholders mailing list and set of communicative recommendations	24	-
D5.4	Report on European main stakeholders mailing list and set of communicative recommendations	36	-
D5.5	Report on dissemination in scientific communities	12	-
D5.6	Report on dissemination in scientific communities	24	-
D5.7	Report on dissemination in scientific communities	36	-
D5.8	Prototype of a web based infrastructure for sustainable societal dialogue	34	-
D5.9	Summary of final events	36	-
D5.10	Final dissemination report	36	-

PUBLICATION NO.	PUBLICATION	LINK (when available)
1	Gutmann, A., Wagner, J. W. et al. (2014). <i>Gray Matters. Integrative Approaches for Neuroscience, Ethics, and Society</i> . Presidential Commission for the Studies of Bioethical issues.	<a href="http://www.bioethics.gov/sites/default/files/Gray%20Matters%20Vol%201.pdf">http://www.bioethics.gov/sites/default/files/Gray%20Matters%20Vol%201.pdf</a>
2	Saen, V. (2014). <i>Bioethics and Disagreement: Organ Markets, Abortion, Cognitive Enhancement, Double Effect, and Other Key Issues in Bioethics</i> . <i>Journal of Medicine and Philosophy</i> 39, 207-216.	<a href="http://jmp.oxfordjournals.org/content/39/3/207.full.pdf+html">http://jmp.oxfordjournals.org/content/39/3/207.full.pdf+html</a>
3	Schelle, K. J., Faulmüller, N., Caviola, L. & Hewstone, M.	<a href="http://journal.frontiersin.org/Journal/10.338">http://journal.frontiersin.org/Journal/10.338</a>



PUBLICATION NO.	PUBLICATION	LINK (when available)
	(2014). <i>Attitudes towards pharmacological cognitive enhancement – a review</i> . <i>Front. Syst. Neurosc.</i>	<a href="#">9/fnsys.2014.00053/full</a>
4	Goodman, R. (2014). <i>Humility Pills: Building an Ethics of Cognitive Enhancement</i> . <i>Med Philos</i> 39:3, 258-278.	<a href="http://jmp.oxfordjournals.org/content/39/3/258.abstract.html?etoc">http://jmp.oxfordjournals.org/content/39/3/258.abstract.html?etoc</a>
5	Luber, B. (2014). <i>Neuroenhancement by noninvasive brain stimulation is not a net zero-sum proposition</i> . <i>Front. Syst. Neurosc.</i>	<a href="http://journal.frontiersin.org/Journal/10.3389/fnsys.2014.00127/full">http://journal.frontiersin.org/Journal/10.3389/fnsys.2014.00127/full</a>
6	Santonide Sio, F., Faulmüller, N. & Vincent, N. A. (2014). <i>How cognitive enhancement can change our duties</i> . <i>Front. Syst. Neurosc.</i>	<a href="http://journal.frontiersin.org/Journal/10.3389/fnsys.2014.00131/full">http://journal.frontiersin.org/Journal/10.3389/fnsys.2014.00131/full</a>
7	Lapenta, O. M., Valasek, C. A., Brunoni, A. R. & Boggio, P. S. (2014). <i>An ethical discussion of the use of transcranial direct current stimulation for cognitive enhancement in healthy individuals: a fictional case study</i> . <i>Psychology &amp; Neuroscience</i> 7:2, 175-180.	<a href="http://www.psycneuro.org/index.php/path/article/view/340/886">http://www.psycneuro.org/index.php/path/article/view/340/886</a>
8	Dijkstra, A. M. & Schuijff, M. (2015). <i>Public opinions about human enhancement can enhance the expert-only debate: A review study</i> . <i>Public Understanding of Science</i> .	<a href="http://www.ncbi.nlm.nih.gov/pubmed/25605749">http://www.ncbi.nlm.nih.gov/pubmed/25605749</a>
9	Shen, F. X. & Gromet, D., M. (2015). <i>Red States, Blue States, and Brain States: Issue Framing, Partisanship, and the Future of Neurolaw in the United States</i> . <i>ANNALS, AAPSS</i> 658.	<a href="http://www.nerri.eu/download.ashx?url=/media/221998/neurolaw-2015-shen-86-101.pdf">http://www.nerri.eu/download.ashx?url=/media/221998/neurolaw-2015-shen-86-101.pdf</a>
10	Farah, M. J. (2015). <i>The unknowns of cognitive enhancement. Can science and policy catch up with practice?</i> <i>Science</i> 350:6259, 379-380.	<a href="http://www.nerri.eu/download.ashx?url=/media/242185/farahmj_theunknownsof_science_2015.pdf">http://www.nerri.eu/download.ashx?url=/media/242185/farahmj_theunknownsof_science_2015.pdf</a>

## MAIN SOURCES

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Project website  
Description of Work (DoW)  
Project reports (Consortium Meetings and Deliverables)  
Project publications (MLE guidelines, briefing paper)

## **ACTION PLAN ON SIS RELATED ISSUES IN EPIDEMICS AND TOTAL PANDEMICS** **- "ASSET"**

**Framework Programme: FP7**

**Action line/Part: 5.1 A more dynamic governance of the science and society relationship**

**Activity: 5.1.2 Broader engagement to anticipate and clarify political, societal and ethical issues**

**Area: -**

**Dimension: GOVERNANCE AND SCIENTIFIC ADVICE**

**Tool: Coordination and support action**

**Project Call For Proposal: FP7-SCIENCE-IN-SOCIETY-2013-1**

**Status: Ongoing**

**Total cost: € 4,496,454**

**Total EU funding: € 3,939,880**

**Website: [www.asset-scienceinsociety.eu](http://www.asset-scienceinsociety.eu)**

**Period: 01/01/2014 - 31/12/2017**

**Subjects: Innovation and Technology Transfer; Regional Development**

**Project ID and Acronym: 612236 - ASSET**

### **BACKGROUND AND CONTEXT OF THE PROJECT AND STRATEGIC NEEDS**

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The world is becoming increasingly interconnected, continuously crossed by information flows, finance, goods, people (and germs). In this context, pandemics are becoming more complex and citizens are demanding more specific and inclusive answers. The phenomena of globalisation and information technology are therefore both a challenge and opportunity. They are the driving force behind an evolution towards a more open global society in which citizens take control of information relevant to the protection and promotion of their health.

However, the linear risk communication models, which views risk communication as a one-way, linear process, with scientists and experts at one end functioning as knowledge producers and the public at the other end as consumers, still remains predominant. In today's world, this approach has become inadequate as it ignores power relations, audience participation, and democratic decision making.

A paradigm shift from a representative governance model, in which health decisions are taken by experts and authorities, to a participatory governance model, in which different stakeholders are involved and engaged in a two-way dialogue, can no longer be deferred if the scientific community and public health authorities wish to deal with pandemics in an effective manner. Within this context, dialogue and cooperation between science and society at different stages of the research and innovation process is likely to be the key in dealing with future pandemics.

### **SPECIFIC PROJECT OBJECTIVES**

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#### **Project objectives:**

The ASSET (Action plan on Science in Society in Epidemics and Total pandemics) project was of 48-month duration relating to a Mobilisation and Mutual Learning Action Plan (MMLAP) which aimed to: i) **create a partnership** with complementary perspectives, knowledge and experiences to address scientific and societal challenges raised by pandemics and associated crisis management; ii) **explore and map SiS-related issues in global pandemics**; iii) **define and test a participatory and inclusive strategy** to succeed; and iv) **identify necessary resources** to make the action after the project completion sustainable. ASSET brings together various domains, such as public health, vaccine and epidemiological research, social and political sciences, law and ethics, gender studies, science communication and media, in order to develop an integrated, transdisciplinary, strategy that takes place at different stages of the research cycle, combining local, regional and national levels.

The ASSET Consortium, led by a French coordinator, was composed of 17 partners from 12 countries (France, Switzerland, Italy, Israel, Romania, Norway, Bulgaria, Ireland, Great Britain, Belgium, Denmark, and Greece).

The main outcome of ASSET aimed to be the delivery and piloting of an Action Plan on incorporation of Science in Society issues into the system of Research and Innovation related to pandemic preparedness.

Within this overarching framework, a number of specific objectives were also identified:

- **Work Package 1 Dialogue and Participation:**
  - To build a common approach to problems among partners of ASSET from different disciplinary, geographical and cultural backgrounds especially through the creation of a glossary of concepts and terminology related to science and society in the field of epidemics and pandemics;
- To create a virtual place on the ASSET Website for the transfer of knowledge, the development of new ideas and exchange on main issues and solutions;
- **Work Package 2 Study and Analysis:** To establish a baseline knowledge about :



- governance of flu pandemics and other similar crises;
- unsolved scientific questions regarding influenza and pandemic situations;
- past experiences of participatory governance, bringing research about influenza and pandemics closer to democratic institutions at all levels;
  - Targeted ethical, legal and societal implications of pandemics;
  - Gender issues in pandemics;
  - Research and innovation context;
  - Risk of intentionally caused outbreaks;
- **Work Package 3 Action Plan Definition:** To design the Action Plan and its main components including
- the definition of the overall architecture of the Action Plan; a roadmap towards the incorporation of user-driven open innovation in the area of pandemic preparedness and response;
  - A handbook of the action including also detailed timetable;
  - A collection of tools – tool box – including checklists, guidelines, and downloadable templates;
- **Work Package 4 Citizen Consultation:** To carry out a public consultation in order to
  - make a concrete and policy-relevant example on EU level coordinated public consultation with a link to parliaments;
- Provide input to policy-making about policies on pandemic crisis, in terms of expression of informed ideas and opinion from near-representative samples of citizens;
  - Engage citizens in the debate of pandemic crisis prevention and management;
- **Work Package 5 Mobilization and Mutual Learning (MML):** To promote social media mobilization, establish a Best Practice Platform and Stakeholder Portal that may support mutual learning activities and create a web of local initiatives to promote mobilization and mutual learning at local level and to enhance the transferability of the most effective policies and practice.
- **Work Package 6 Policy Watch:** To ensure a reflection on EU strategic priorities about pandemics and a regular monitoring of other EU related initiatives and policy developments at local, national and European levels, in order to better connect with policy cycles.

### **SiS dimension objectives**

The ASSET project aimed at incorporating Science in Society issues into the system of Research and Innovation related to pandemic preparedness. More specifically, the project aimed at providing all the information and tools promoting a better management of pandemic situation. Accordingly, the conduct of the project was supposed to result in the elaboration of an Action Plan tested with citizen consultation. In that respect, the project's objective was in line with the objective of the Government and Scientific Advice SiS dimension whose purpose was, in particular, to place the research activities at the heart of the society and thus in the policy making process.

### **Innovation Union objectives**

"*Strengthening the knowledge base and reducing the fragmentation*" is the first intermediate objective of the Innovation Union. The purpose of the ASSET project was to provide an Action Plan on incorporating Science in Society issues into the system of Research and Innovation related to pandemic preparedness. The drafting of the Action Plan was supposed to be based on study and analysis as well as citizen consultations. In that respect, the ASSET project was consistent with the Innovation Union.

### **European Research Area (ERA) objectives**

The ASSET project relating to the delivering of an Action Plan on incorporating Science in Society issues into the system of Research and Innovation related to pandemic preparedness and contributes there to "an optimal circulation, access to and transfer of scientific knowledge including via digital ERA" (fifth ERA priority).

### **SaS/SiS Programme objectives/Activity Lines**

The ASSET project was relevant regarding the programme's activity line objectives. Indeed the project as designed to develop public consultation which will provide input to policy-making about policies on pandemic crisis through the common definition of the strategic plan and engage citizens in the debate of pandemic crisis prevention and management. The project was also designed to be an example and a test of the integration of citizens in political decisions. A best practice platform which will also allow the exchange between stakeholders will contribute to the improvement of the open governance of science.

## SaS Action Plan

Due to its activities, the project can be considered to be in line with Action 28 in relation to ensuring coordination of prospective activity at the European level due to the project's aim to build a common approach between actors for future work. The project contributed to Action 36 through the development of a Strategic Plan aiming to be integrated in policy decisions and a reflexion on EU strategic priorities. The data and exchange also partially concerned risk management and the project can be linked with Action 35.

## PROJECT RESULTS AND OUTCOMES

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### Main achievements according to project objectives

The ASSET project was divided into 10 work packages covering the principal outputs of the project as well as communication, evaluation, legacy and management activities, with the key work packages outlined in the objectives section above.

Due to changes in the partnership structure that occurred shortly after the official project start date, the kick off meeting took place in June 2014 and a revised work plan was submitted to the Commission thereafter. Whilst the project accumulated some delays at the outset, the project achieved highly satisfactory results in terms of producing the intended outputs.

Within the scope of WP 1 (Dialogue and Participation), the project notably delivered on its objective of building a common approach and creating a common language through the **production of the Glossary and Terminology**. WP 2 (Study and Analysis) produced all of the expected deliverables, consisting of a series of **seven reports covering topics ranging from governance to ethics, law and fundamental rights and gender issues**. A **trans-disciplinary workshop** was also undertaken. Within the context of WP 3 (Action Plan Definition), the project delivered, with a three-month delay, the **Strategic Plan**, a high-level plan that provides a framework for MML strategy and, consequently, for the actions and activities to be included in the MML action plan. Within the scope of WP 6 (Policy Watch), the first **High Level Policy Forum in March 2015** was also held, although the number of members was not considered satisfactory. According to the First Quality Report delivered in June 2015, the final quality of deliverables is considered very high and fully adherent to the expectations of the Description of Work (DOW).

The project is still on-going and the results and outcomes are not yet fully achieved.

### Main achievements according to Programme objectives

The ASSET project is still on-going. However the reports published to improve knowledge concerning the governance and the ethic implication of pandemics and associated crisis management is fully related with the programme objectives. The public consultation will create a test to increase the implication of citizens in research activity decisions.

### Main achievements according to SiS Dimensions

At the stage of the drafting of the ASSET case study, the project is still on-going (it is planned to end up in December 2017). However, during phone interview, project participants outlined that they already drafted the Action Plan and are starting WP5 that consists in testing its contents towards citizens in eight different countries and twelve cities. The approach of the ASSET case study is therefore consistent with their willingness to restore trust amongst all the stakeholders (scientists, researchers, policy-makers and the general public) that could be involved in the management of pandemic situation. In that respect, the ASSET project is in line with the Government and Scientific Advice dimension aiming to strengthen and improving European science systems. Moreover the development of a platform to share good practices about this experience will contribute to the improvement of the European science system.

## DISSEMINATION AND ENGAGEMENT ACTIVITIES AIMED AT TRANSFERRING THE PROJECT RESULTS TO WIDER COMMUNITIES

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A communication strategy was developed at the outset of the project in order to frame efforts aimed at transferring project knowledge and results to wider communities. The external communication activities of the ASSET project sought to cooperate with health authorities. Furthermore, two sub-types of external communication were set out: i) communicate on the project itself and ii) communicate on the contents of the project. Finally, three principal target groups were mentioned by the communication strategy: i) stakeholders and policymakers; ii) healthcare professionals; and iii) the general public.

Over the course of the project, a number of external communication and dissemination tools were leveraged:

- **Brand:** Establish the ASSET consortium as a new actor in the field of infectious threats, preparedness and response through the construction of a corporate brand and image.
- **Community of Practice (CoP):** Build a CoP through the creation of the Moodle platform by creating an appropriate reserved areas for debate (i.e. stakeholder portal).

- **Website:** Development of a website in order to publish deliverables and outputs, publish the products of local meetings, report relevant events and implicate partners in editorial activity.
- **Social media:** Creation of social media accounts in order to actively involving stakeholders and public, catalyse mobilize support, collect information, involve people in decision-making and promote behavioural changes.
- **Newsletters:** The publishing of a biannual Pandemic Preparedness and Response Bulletin covering general crisis management issues, emerging infectious diseases and monitoring current status of established national pandemic plans and/or strategies in Europe (2 produced to date) and a biannual Research and Innovation Newsletter devoted to Responsible Research and Innovation (RRI) in the field of antiviral drugs and vaccines (3 produced to date).
- **Events:** The organisation of various types of events, such as trans-disciplinary workshops, high level policy forums, citizen consultations, summer schools, the SiS in Pandemic Best Practice Award for GPs, the Liaison with the Comenius Programme, participation in the Geneva Music and Science Festival and brokerage events
- **Local activities:** Activities implemented by project partners with the objective of promoting mobilization and mutual learning at local level and to enhancing the transfer of the most effective policies and practice.
- **Scientific communication:** Establishment of a research paper series featuring the main outputs from the project in the form of research papers that will hold an ISSN number and be available on the project's website.

The project is still ongoing, all the dissemination activities have not yet been implemented.

## PROJECT IMPACTS

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### Potential impacts

The DOW for the ASSET project defined three overarching expected impacts:

- Address the web of mistrust between citizens, public authorities, experts and industries by contributing to restoring trust;
- Promote research and technological developments which may promote sustainable and inclusive solutions through focus on governance mechanisms and Open and Responsible Innovation and acting as a catalyst for further initiatives by creating a critical mass of people and knowledge;
- Contribute to improving transnational cooperation by strengthening and enriching the existing web of relationships and networks between relevant actors and building on previous EU projects (TELL ME), as well as on online collaboration and on the rich and multifaceted world of social media.

Furthermore, the project's potential impact can be further assessed through the following indicators:

- **Betweenness centrality:** Five participating organisations of the ASSET project are amongst the most central participants in FP7.
- **Scientific attractiveness:** Two participants are ranked in the Leiden University ranking: the University of Geneva (197<sup>th</sup>) and the University of Haifa (560<sup>th</sup>).
- **Business attractiveness:** None project participant is ranked as one of the biggest R&D investors amongst SiS participants.

### Actual impacts

With the project on-going, it is difficult to provide an assessment of project impacts at the present. However, first elements are available and can provide early information regarding the future actual impacts of the ASSET project.

The first ex-post evaluation report highlighted the risk of limited impact due to the low number of high-influence external members that participated in the first HLPF meeting. The independent evaluator noted that, "If such recruitment remains low, the opportunity to create a channel to efficiently enhance project impact will have been missed." Following these difficulties, a new approach to high-level stakeholder engagement was elaborated based on interactions with the EU Health Security Committee and other forms of strategic cooperation that can foster the impact prospects of the HLPF and help overcoming the perceived financial bottleneck.

Besides, project participants outlined the following information:

- **Scientific impact:** A series of publications are ready for released, suggesting therefore a positive impact from a scientific point of view;
- **Institutional and organisational impact:** Delivering an Action Plan based on the work of a large spectrum of stakeholders (scientists, researchers, policy-makers and the general public) is supposed to contribute to restore trust regarding the management of pandemics situation and create a common culture that could

impact the functioning of institutions and organisations. However, at this stage no information can confirm this assumption;

- **Policy impact:** It is planned that ASSET project participants will discuss about their findings at the European Parliament as well as with national authorities;
- **Social media impact:** The project is implementing actions on the social media enabling them to disseminate their advocacy message. Likewise, the project is communicating through Facebook, Twitter, YouTube and LinkedIn suggesting a positive social media impact.

### PATH-BREAKING ADVANCEMENTS

No specific path-breaking advancement could be identified.

### BEST PRACTICES

No specific best practice could be identified.

### EU ADDED VALUE OF THE PROJECT

Project partners did not specify in their deliverables any information regarding the EU added value on the project however it seems to be relevant at least from a financial point of view as ASSET is mainly financed by FP7 (87%). More generally, according to a project participant's interview, the EU added value of SaS/SiS projects consists in the networking which encourages knowledge transfer and mutual learning.

### PARTICIPANTS AND RESEARCH TEAM

#### Participants

Number of participants: 16

Number of countries involved: 12

	Type	Country	Role	Previous participations to FP
ABSISKEY CP	OTH	FR	Coordinator	77
ISTITUTO SUPERIORE DI SANITA	REC	IT	Participant	79
UNIVERSITÉ DE GENÈVE	HES	CH	Participant	239
UNIVERSITY OF HAIFA	HES	IL	Participant	48
UNIVERSITATEA DE MEDICINA SI FARMACIE 'CAROL DAVILA' DIN BUCURESTI	HES	RO	Participant	7
FORSVARETS FORSKNINGINSTITUTT	REC	NO	Participant	13
CENTRE FOR SCIENCE, SOCIETY AND CITIZENSHIP	PRC	IT	Participant	20
NATIONAL CENTER OF INFECTIOUS AND PARASITIC DISEASES	REC	BG	Participant	5
EUROPEAN INSTITUTE OF WOMEN'S HEALTH LIMITED	REC	IE	Participant	2
ZADIG SRL	PRC	IT	Participant	3
INTERNATIONAL PREVENTION RESEARCH INSTITUTE	PRC	FR	Participant	6
ASSOCIATION LYON BIOPÔLE	OTH	FR	Participant	2
BJM PUBLISHING GROUP LIMITED	PRC	GB	Participant	3
THE INTERNATIONAL EMERGENCY MANAGEMENT SOCIETY	OTH	BE	Participant	1

Stock-taking and meta-analysis of Science in Society projects throughout FP6 and FP7  
Final Case Studies

	Type	Country	Role	Previous participations to FP
AISBL FONDEN TEKNOLOGIRÅDET	REC	DK	Participant	11
INSTITUTE OF PREVENTIVE MEDICINE ENVIRONMENTAL AND OCCUPATIONAL HEALTH	REC	GR	Participant	-

### Team Composition

Team Size: members\*

GENDER				
Female	Male		Unknown	
49%	51%		0	
SENIORITY				
Average	Junior		Senior	
0	11%		89%	
PhD				
No		Yes		
51%		49%		
BACKGROUND				
Applied Sciences	Health Sciences	Humanities & Social Sciences	Natural Sciences	Unknown
2,70%	59%	24%	11%	3%

\*The data are based on the analysis of the provided project's Description of Work.

### DELIVERABLES AND PUBLICATIONS

DELIVERABLE NO.	DELIVERABLE NAME	DUE DATE OF DELIVERY (month)	ACTUAL SUBMISSION DATE: (month)
D1.1	KOM report	2	6
D1.2	Glossary and terminology	6	14
D1.3	Project infrastructure report 1	18	19
D1.4	Project infrastructure report 2	36	-
D1.5	Project infrastructure report 3	48	-
D1.6	Scientific coordination report 1	18	22
D1.7	Scientific coordination report 2	36	-
D1.8	Scientific coordination report 3	48	-
D2.1	Governance report	11	12
D2.2	Reference guide on scientific questions	11	15
D2.3	Crisis participatory governance report	11	15
D2.4	Ethics, law and fundamental rights report	11	16
D2.5	Report on gender issues	11	11
D2.6	Report on intentionally cause outbreaks	11	12
D2.7	Transdisciplinary workshop report	13	17
D3.1	Strategic plan	18	-
D3.2	Roadmap to open and responsible research and innovation in pandemics	18	-
D3.3	Action plan handbook	21	-
D3.4	ASSET tool box	24	-
D4.1	Citizens meeting preparatory materials	30	-
D4.2	Citizens meeting national materials	32	-
D4.3	Policy report on pandemic consultation and public trans-national synthesis report	36	-
D5.1	Social media mobilization report	48	-
D5.2	Best practice platform and stakeholder portal report	48	-

Stock-taking and meta-analysis of Science in Society projects throughout FP6 and FP7  
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DELIVERABLE NO.	DELIVERABLE NAME	DUE DATE OF DELIVERY (month)	ACTUAL SUBMISSION DATE: (month)
D5.3	Local initiative report	48	-
D6.1	High level policy forum report 1	18	19
D6.2	High level policy forum report 2	36	-
D6.3	High level policy forum report 3	36	-
D6.4	Pandemic preparedness and response bulleting report 1	18	18
D6.5	Pandemic preparedness and response bulleting report 2	18	-
D6.6	Pandemic preparedness and response bulleting report 3	48	-
D7.1	Communication strategy	6	12
D7.2	Project brand	6	12
D7.3	Web portal report 1	24	-
D7.4	Web portal report 1	48	-
D7.5	Media report 1	24	-
D7.6	Media report 2	48	-
D7.7	Science communication report 1	24	-
D7.8	Science communication report 2	48	-
D7.9	Summer school report 1	24	-
D7.10	Summer school report 2	48	-
D7.11	GP award report	48	-
D7.12	Liaison with the Comenius programme report	48	-
D7.13	Gender issue platform report	48	-
D7.14	Research and innovation newsletter report	48	-
D7.15	Geneva music and science festival report	36	-
D7.16	Final publishable summary report	48	-
D7.17	Final conference report	48	-
D8.1	Project quality report 1	18	18
D8.2	Project quality report 2	36	-
D8.3	Project quality report 3	48	-
D8.5	Ex post evaluation report 1	18	22
D8.6	Ex post evaluation report 2	36	-
D8.7	Ex post evaluation report 3	48	-
D9.1	Financial sustainability plan	48	-
D9.2	Brokerage event report	48	-
D10.1	Project handbook	3	14
D10.2	Technical and administrative	48	-

Publications no.	PUBLICATION	LINK (when available)
	Gesser-Edelsburg A, Shir-Raz Y (2015); Science vs. fear: the Ebola quarantine debate as a case study that reveals how the public perceives risk in <i>Journal of Risk Research</i> 1-23	-
2	Gesser-Edelsburg A, Shir-Raz Y, Walter N, Mordini E, Dimitriou D, James JJ, Green MS (2015). The Public Sphere in Emerging Infectious Disease Communication: Recipient or Active and Vocal Partner? In <i>Disaster Medicine and Public Health Preparedness</i> , 9, 447-458.	-
3	Gesser-Edelsburg A, Shir-Raz Y, Hayek S, Sassoni-Bar Lev O (2015), What does the public know about Ebola? The public's risk perceptions regarding the current Ebola outbreak in an as-yet unaffected country in <i>Am J Infect Control</i> . 43(7), 669-75.	-

## MAIN SOURCES

### Documentary review:

eCORDA;  
CORDIS database;  
OPENAIRE database;  
ASSET CONSORTIUM (2010). The description of work. Annex 1.

ASSET CONSORTIUM (2015). Ex post evaluation report 1  
ASSET CONSORTIUM (2014). Project Handbook.  
Interview with Celine BLANCHON and Alberto PERRA on 29 August 2016

## **MANAGING ALTERNATIVES FOR PRIVACY, PROPERTY AND INTERNET GOVERNANCE - "MAPPING"**

**Framework Programme: FP7**

**Action line/Part: 5.1 A more dynamic governance of the science and society relationship**

**Activity: 5.1.2 Broader engagement to anticipate and clarify political, societal and ethical issues**

**Area: -**

**Dimension: GOVERNANCE AND SCIENTIFIC ADVICE**

**Tool: Coordination and support action**

**Project Call For Proposal: FP7-SCIENCE-IN-SOCIETY-2013-1**

**Status: Ongoing**

**Total cost: € 4,642,522.20**

**Total EU funding: € 3,995,765.00**

**Website: [www.mappingtheinternet.eu](http://www.mappingtheinternet.eu)**

**Period: 01/03/2014 - 28/02/2018**

**Subjects: Innovation and Technology Transfer; Regional Development**

**Project ID and Acronym: 612345 – MAPPING**

### **BACKGROUND AND CONTEXT OF THE PROJECT AND STRATEGIC NEEDS**

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The internet has radically changed society over the last 15 years. The impact it has on governments, businesses and people's lives is hard to overestimate. Law and policy makers are still struggling with many issues caused by the advent of the Internet. The development of the internet has several implications for society that need to be tackled. They are as follows:

- It has grown outside the strict confines of conventional experiences of state sovereignty insofar as jurisdiction is concerned. The physical characteristics of the Internet make it extremely difficult to regulate;
- It has led to the creation of a multi-billion business sector which has used personal data as a key contributor in the dominant business model;
- It has facilitated the creation of new forms of crime whereby certain sectors of cybercrime involve billions of euros and millions of citizens in a range of activities whereby Intellectual Property Rights (IPR) are threatened and billion lost through ID theft, fraud and misappropriation;
- The cyberspace has also become a battle-ground in the area of "cyber-warfare".

Several EU FP 7 projects were carried out to deepen the understanding of different aspects of the Internet developments including CONSENT (covering on-line consent and privacy in social network), SMART and RESPECT (which cover smart and on-line surveillance, etc.) which undertook research to deepen the understanding of the different aspects of developments in the internet and their consequences.

### **SPECIFIC PROJECT OBJECTIVES**

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#### **Project objectives**

The goal of the ongoing MAPPING project – Managing Alternatives for Privacy, Property and Internet Governance - is to create an all-round and common understanding of the many and varied economic, social, legal and ethical aspects of the recent developments on the Internet, and their consequences for the individual and society at large. The MAPPING project focuses on privacy, property and Internet governance.

MAPPING specifically investigates and debates the existing innovation policies, business models and legal framework related to the implementation of the Digital Agenda for Europe and the changes needed to set up an improved governance structure for the EU innovation ecosystem.

Accordingly, the primary objectives of the MAPPING project are the following:

- To provide a forum for stakeholders, where research meets practice for better coordination and utilisation of knowledge;
- To foster and contribute to the debate in the three focus areas: Internet Governance, Privacy and Intellectual Property Rights;
- To map Internet Governance: Describing status quo and offering a platform for discussions, to include desirable developments from an EU perspective;
- To chart 'right to privacy' considerations in the development of business models using personal data;
- To refresh the Intellectual Property Rights debate: Balancing exclusive rights with the interests of growth and innovation;



- To ensure public engagement: Bringing science closer to society through the organisation of focus groups to identify major problem areas in Internet use;
- To determine a Roadmap for further engagement and learning.

### **SaS/SiS Programme objectives/Activity Lines**

The MAPPING project is implemented in order to, in particular, set an improved governance structure for the EU innovation system participating in the first SiS action entitled "a more dynamic governance of the science and society relationship". More specifically, the project is undertaking research on relationships between science, democracy and law (SiS area 5.1.1.1). Similarly, the project contributes to the ERA deployment as it implements "research needed for political decisions" (COM(2000)6 final).

The MAPPING project is also in line with the activity line objectives. Indeed the project has a strong ethical dimension because it is designed to answer the citizen's needs of more transparency and security with Internet Governance. The project will also contribute to the integration of civil society and all concerned stakeholders in policy decisions through the organisation of focus groups and workshops to collect citizen's point of views. The conclusions will be integrated in the Roadmap and contribute to an open governance of science.

### **SiS dimensions**

The project is relevant to the SiS dimension "governance and scientific advice". Indeed MAPPING aims at building improved governance for the EU innovation system. As the project is striving to foster the debate on Internet Governance, Privacy and Intellectual Rights, its objectives are consistent with the "Governance and scientific advice" dimension of FP7.

### **Innovation Union objectives:**

Since the MAPPING project's main objective is to create a global understanding of the economic, social, legal and ethical aspects of the recent developments on the Internet and their consequences for the individual and society at large, it contributes to the Innovation Union objective of strengthening the knowledge base and reducing fragmentation among Europe.

### **European Research Area (ERA) objectives**

As the project aims at investigating the existing innovation policies, business models and legal framework related to the implementation of the Digital Agenda for Europe and the changes needed to set up an improved governance structure for the EU innovation system, it is in line with the ERA objective of promoting optimal transnational cooperation and competition.

### **SaS Action Plan**

The MAPPING project will fully contribute to Action 37 through the development of an internet platform to gather the stakeholders concerned by the Internet Governance, Privacy and Intellectual Property Rights. This will facilitate the debate and the integration of conclusions in laws. The project is also designed to contribute to Action 36 by providing a Policy Roadmap which is linked with the general development of the Digital Agenda for Europe. Thus the project participate in the setting up of the European common scientific reference systems. Project Results and Outcomes

## **PROJECT RESULTS AND OUTCOMES**

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As the MAPPING project is still on-going (half way through its defined project timeline), results and outcomes have not been specified by project partners.

The first results described in the first periodic report are the following:

- Preparation of a strategy of how to engage stakeholders in the debate of MAPPING's three focus areas validated by the stakeholders;
- Organisation of the Extraordinary General Assembly bringing together more than 120 participants to discuss the three focus areas of the MAPPING project;
- Creation of a Policy Watch Plan and a Policy Observatory in order to monitor policies and projects concerning the relationship between the Internet and society at European, national and local levels. It will be based on a participatory and multidisciplinary approach, taking into account and valorising the points of view/positions of the different actors involved in the policy-making process;
- Organisation of focus groups bringing together more than 150 different stakeholders in 11 EU member state. The information collected from the focus groups lead to the identification of a list of possible "foci of dialogue" and contentious points in the three thematic areas of Internet Governance, Privacy and IPRs.
- Establishment of the draft Road Map which integrated the conclusions of the focus groups;
- Organisation of several thematic workshops focused on the three focus areas of the MAPPING project

However, the project is expected to create an Action Plan and put forward workable policy guidelines. These will be based on a multidisciplinary perspective on the latest and foreseeable developments in ICT taking into account conflicting interest, perceptions and practices of different societal actors that shape the EU's technological future.

#### **Main achievements according to Programme objectives**

The MAPPING project will contribute to the strengthening of the governance and networks in ethic-related issues in the field of internet governance, Privacy and Intellectual Rights through the creation of a policy observatory and platform and an action plan. Internet uses and data protection is a transversal challenge for all fields of research but also for citizens.

#### **Main achievements according to Dimensions**

The MAPPING project is designed to provide scientific advice in European digital policy making through the participation of all stakeholders to build a common Road Map.

#### **DISSEMINATION AND ENGAGEMENT ACTIVITIES AIMED AT TRANSFERRING THE PROJECT RESULTS TO WIDER COMMUNITIES**

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Project partners outlined<sup>53</sup> that the key to MAPPING's success would be its planned mobilisation of a wide spectrum of ICT-related stakeholders and social actors from both EU Member States and associated countries, enabling them to come together in a multidisciplinary environment where "research meets practices" in order to tackle the most pressing issues of the "digital transition". Thus, dialogue and participation initiatives represent the backbone of the entire project.

Furthermore, project partners pointed out<sup>54</sup> that the project aims at focusing on communicating primarily the results of the MAPPING activities rather than the process of getting the results. For that purpose, they have mobilised the following communication channels:

- Elaboration of a website and use of the Search Engine Optimisation (SEO) as a supporting element of monitoring MAPPING project online presence;
- Organisation of events;
- Drafting of eNewsletters and Press releases;
- Drafting of publications in online and offline media as well as publication through the European Commission's dissemination channels and publication in scientific journals;
- Use of social media;
- Elaboration of roll up and posters, PowerPoint presentations, flyers and factsheets.

The project is still on-going, thus all the foreseen dissemination activities have not yet been achieved.

#### **PROJECT IMPACTS**

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##### **Potential impact**

It is expected that MAPPING could significantly contribute to the creation of an enabling framework for completing the digital transition and improving the innovation climate in the EU.

Potential impacts can be further assessed through the following indicators:

- **Betweenness centrality:** Three institutions out of the thirteen participating in the project were in the top 1% most central institutions in FP7, while four were in the top 5% and six in the top 10%;
- **Scientific attractiveness:** One institution out of the thirteen participants was ranked in the Leiden university ranking: the University of Groningen, which ranked 212th;
- **Business attractiveness:** No participants from MAPPING were ranked amongst the biggest R&D investors having participated in SiS. This can notably be explained by the fact that participants were mainly universities and research institutes.

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<sup>53</sup> MAPPING CONSORTIUM (2013), Annex 1 – « Description of Work »

<sup>54</sup> MAPPING CONSORTIUM (2014), Communication strategy and plan

### Actual impact

As the project is still ongoing, no actual impacts have been identified so far.

### PATH-BREAKING ADVANCEMENTS

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Done.

### BEST PRACTICES

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Done.

### EU ADDED VALUE OF THE PROJECT

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At this stage, project partners did not specify in their deliverables any information regarding the EU added value on the project however added value seems to be apparent. First, it tackles internet issues that overcome national barriers and therefore justify an EU response. Accordingly, the project has a strong EU dimension as the 14 project partners come from 10 different EU Member States. Second, the project funding strongly relies upon FP7 financing (more than 80%).

### PARTICIPANTS AND RESEARCH TEAM

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#### Participants

Number of participants: 14

Number of countries involved: 10

	Type	Country	Role	Previous participations to FP
UNIVERSITY OF GRONINGEN	HES	NL	Coordinator	171
UNIVERSITY OF MALTA	HES	MT	Participant	49
LAW AND INTERNET FOUNDATION	REC	BG	Participant	5
LEIBNIZ UNIVERSITY HANNOVER	HES	DE	Participant	116
NATIONAL RESEARCH COUNCIL: INSTITUTE FOR RESEARCH ON POPULATION AND SOCIAL POLICIES	REC	IT	Participant	690
EUROPEAN PROJECTS & MANAGEMENT AGENCY	OTH	CZ	Participant	3
ASSOCIATION FOR TECHNOLOGY AND INTERNET	OTH	RO	Participant	2
HOPLITE SOFTWARE, S.L	PRC	ES	Participant	1
LABORATORY OF CITIZENSHIP SCIENCES	REC	IT	Participant	13
INTERPOL		NL	Participant	9
NATIONAL RESEARCH COUNCIL: INSTITUTE OF LEGAL INFORMATION THEORY AND TECHNIQUES		IT	Participant	6
EUSTIX	OTH	AT	Participant	2
DIPLOFOUNDATION	OTH	MT	Participant	1
BRITISH BUSINESS FEDERATION AUTHORITY	PRC	UK	Participant	1

#### Team Composition

Team Size: 35 members\*

Stock-taking and meta-analysis of Science in Society projects throughout FP6 and FP7  
Final Case Studies

Female		Male		Unknown	
34%		66%		0	
<b>SENIORITY</b>					
Average		Junior		Senior	
0		11%		89%	
<b>PhD</b>					
No			Yes		
74%			26%		
<b>BACKGROUND</b>					
Applied Sciences	Health Sciences	Humanities & Social Sciences	Natural Sciences	Unknown	
20%	59%	77%	0%	3%	

\*The data are based on the analysis of the provided project's Description of Work.

### DELIVERABLES AND PUBLICATIONS

DELIVERABLE NO.	DELIVERABLE NAME	DUE DATE OF DELIVERY (month)	ACTUAL SUBMISSION DATE: (month)
D1.1	Project plan	3	2
D1.2	Interim report at halfway stage	24	-
D1.3	Final report at conclusion of project	48	-
D2.1	Dialogue and participation plan	3	3
D2.2	Guidelines about management of D&P	6	-
D2.3	Roadmap – first draft	8	-
D3.1	Policy watch plan	3	3
D3.2	Setting up of policy observatory	8	9
D3.3	Summary of minutes of workshop	38	-
D3.4	Final WP report	44	-
D4.1	Stakeholders meetings on vision, technical solutions for parallel universes, legal innovations and user-participation mechanisms, incl. solutions for European law to be enforced in rel. jurisdictions	8	-
D4.2	Report on "the EU internet vision: past, present & future"	18	-
D4.3	Report on "technical realities implementing or avoiding multiple and separate spaces within cyberspace"	24	-
D4.4	Report on "reinforcing the European charter of fundamental rights in the Internet Age"	26	-
D4.5	Roundtable on "technical realities implementing or avoiding multiple and separate spaces within cyberspace"	26	-
D4.6	Roundtable on "reinforcing the European charter of fundamental rights in the Internet Age"	30	-
D4.7	Workshop conference on "mechanisms for participation in internet-governance policy"	42	-
D4.8	Mechanisms for participation in Internet-governance policy	45	-
D5.1	Stakeholders meeting on current business models	12	11
D5.2	Report on business models based on personal data: best practices	18	-
D5.3	Roundtable on future scenarios of personal data use in commercial non-commercial settings	24	-
D5.4	Competition for young innovators and entrepreneurs	20	-
D5.5	Stakeholders and the public training session	26	-
D5.6	Conference on 'privacy for the next generation'	46	-
D5.7	Report on privacy for the next generation	46	-
D6.1	Report on legal and ethical aspects of the EU IPR protection regime	18	-
D6.2	Recommendations of the round table on open innovation in the proprietary world	30	-
D6.3	Report on devising remedies and mitigating risks	42	-

DELIVERABLE NO.	DELIVERABLE NAME	DUE DATE OF DELIVERY (month)	ACTUAL SUBMISSION DATE: (month)
D6.4	<i>Proceedings of the conference on the future of IPR</i>	46	-
D6.5	<i>"Promoting open innovation" training sessions</i>	26	-
D7.1	<i>Feasibility report on sustainability</i>	42	-
D7.2	<i>General sustainability plan</i>	44	-
D7.3	<i>Collection of the specific sustainability plans</i>	46	-
D7.4	<i>Roadmap</i>	48	-
D8.1	<i>Evaluation and monitoring plan</i>	6	-
D8.2	<i>Evaluation report 1</i>	12	-
D8.3	<i>Evaluation report 2 (mid-term evaluation report)</i>	24	-
D8.4	<i>Evaluation report 3</i>	36	-
D8.5	<i>Final evaluation report</i>	48	-
D8.7	<i>Ex post evaluation report 3</i>	48	-
D9.1	<i>Map of actors and stakeholders, list of actors</i>	5	9
D9.2	<i>Communication strategy and plan</i>	4	4
D9.3	<i>Project engaging website (M6 and regular updates)</i>	6	5
D9.4	<i>e-newsletter (7 issues) (each 6<sup>th</sup> M)</i>	6	-
D9.5	<i>Extraordinary general assembly</i>	3	-
D9.6	<i>First annual general assembly report</i>	18	-
D9.7	<i>Second annual general assembly report</i>	30	-

As specified in the project's Communication strategy and plan, publications are expected. However at this stage, no publications seem to have been published.

#### MAIN SOURCES

The main sources of information for the fiche include:

- The Project plan;
- The dialogue and participation plan;
- The policy watch plan;
- Report on the stakeholders meeting on current business models;
- Map of actors and stakeholders;
- The communication strategy and plan;
- Report on the website;
- The description of work;
- eCORDA;
- CORDIS database;
- OPENAIRE database.

## **SOCIAL ENTERPRISE AS FORCE FOR MORE INCLUSIVE AND INNOVATIVE SOCIETIES**

### **BACKGROUND AND CONTEXT OF THE PROJECT AND STRATEGIC NEEDS**

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The economic crisis that began in December 2007 affected the entire European economy, with higher detrimental effects in some countries and groups than others. It resulted in a decline in international trade, slumping commodity prices, and unprecedented unemployment rates, particularly amongst Europe's youth. Whilst the share of European citizens struggling to make ends meet is historically high, the European principles of solidarity and redistribution were under siege. Mass protest movements demonstrated that political instability in Europe was escalating. The situation also underlined that social issues and the widening gap between citizens and political elites are some of key social challenges that need to be addressed.

In order to channel public discontent and disillusion towards reforming and improving society, a number of fundamental questions needed to be answered: How can we develop new models of capitalism when lack of trust is so widespread and persistent? How can we co-create new models of governance in our societies and organisations that meet expectations for long-term sustainability while protecting individual rights and societal safety nets? Who are the agents that can start and carry on the reform process?

Concerning these questions, social entrepreneurs represent a potentially important part of the answer. Social entrepreneurs run ventures that primarily aim to create significant societal value, and do so in an entrepreneurial, market-oriented way. They constitute a niche, though social entrepreneurship is a growing phenomenon. Whilst, social enterprises have the potential to achieve inclusiveness and social innovation / societal innovation goals, they also create a new wave of questions that researchers must respond to in order to better understand their potential.

### **SPECIFIC PROJECT OBJECTIVES**

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The ongoing SEFORIS project sets out to explore the role of social entrepreneurs in reforming European societies, and societies outside Europe. To achieve this, three objectives were defined.

- **Objective 1:** Enhancing the understanding of the role of social enterprise in leading to a more inclusive, innovative society. In particular, the project is seeking to shed new light on the processes that social enterprises undertake, experiment with, and scale in the following five domains: organisation and governance; public and private financing; innovations; market and society; and behavioural and societal change.
- **Objective 2:** Developing insight about social enterprises and their context. Understanding how formal and informal institutions – social capital environment and resources - affect social enterprise performance and vice-versa. Since the institutional environment is critical to understand transferability and replication across geographies, the objective is to clarify the potential negative effects of roll-backs in support and to give insight into what might be suitable substitutes for any support that does need to be rolled back.
- **Objective 3:** Developing thoughtful and new policy-relevant insights and stakeholder-relevant recommendations. The project aims to integrate the evidence and insights that emerge into policy propositions. In particular, the project will aim to help shape new public policy initiatives in three distinct areas: i) emerging social entrepreneurship both at the EU and Member State levels and outside Europe; ii) social innovation and inclusiveness at the national and the EU level, and outside Europe; and iii) areas of both emerging social entrepreneurship and social innovation in European welfare states versus emerging market economies.

### **SaS/SiS Programme objectives/Activity Lines**

The governance and scientific advice dimension of SiS / SaS aims, amongst other objectives, to contribute to better insight on the interactions between science, society and law in democratic contexts with the aim of helping European policy makers to better approach regulatory issues in the context of polycentric and multilevel governance. Whilst the project does not deal with the regulatory aspects of a scientific or technological advance, it does directly address governance issues pertaining to an innovative new socio-economic development: social enterprise. In this way, it can be considered to be indirectly aligned with programme objectives. **Innovation Union objectives**

According to the 2010 Commission Communication on the Innovation Union, the EU should focus on removing remaining barriers for entrepreneurs to bring "ideas to market", including smarter and more ambitious innovations. This project aims in particular to generate new knowledge necessary to formulate new policy recommendations aimed at encouraging the emergence of social entrepreneurship and innovation. It is thus highly aligned with Innovation Union objectives.

### **European Research Area objectives**

The ERA seeks to achieve optimal transnational cooperation. Whilst this project does not contribute directly to improving transnational cooperation, it is in itself an example of a European approach to tackling a major economic

and societal question. It can be seen as contributing to the transnational cooperation of research and policy actors in the domain of social entrepreneurship and innovation through their participation in the project.

### **SaS Action Plan**

The project meant to develop recommendations on social innovation and social entrepreneurship in Europe, therefore contributing to the improvement of science based policymaking.

In this vein, the project was consistent with the SaS Action Plan and in particular with:

- Action 36, as the project aimed to make recommendations on the expertise and serve policymaking.
- Action 28, as the project meant to develop policy propositions both at the EU and national level, therefore ensuring co-ordination of prospective activity at the European level.

Moreover, the project was also indirectly consistent with Action 38, as scientific investigation in the field of social enterprise and social innovation – imminent European issue and challenge – and the development of recommendations in support of policy making, indirectly contributed to the setting up of European Common Scientific Reference Systems.

### **PROJECT RESULTS AND OUTCOMES**

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No progress reports are available for this ongoing project with information gaps therefore existing with regard to the ongoing project results and outcomes.

**Main achievements according to SiS Dimensions** The project was consistent with the Governance and Scientific Advice SiS Dimension as it helped to strengthen and improve European Science Systems. In fact, the provision of recommendations on social innovation and entrepreneurship was meant to come in support of policy making and to spread knowledge of science and technology in society.

### **DISSEMINATION AND ENGAGEMENT ACTIVITIES AIMED AT TRANSFERRING THE PROJECT RESULTS TO WIDER COMMUNITIES**

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Deliverable 9.1 of the project was a dissemination strategy (published in June 2014). The principal tools used by the strategy include:

- The **Seforis web site** which includes all basic project information, as well as the main reports sent to the EC, academic working papers and project updates
- The project aims to publish a series of **academic articles** on social enterprises' potential for promoting inclusion, related to our research methodologies, theoretical frameworks for organisation, financing, innovation, context and impact. The project also aims to publish policy-oriented papers in peer-reviewed academic journals and working papers distributed publicly via the website.
- The project will make its **dataset available to the public**.
- The project also foresees to **directly distribute information through expert networks, consortium members and the wider community created around the project**.
- The project will present results in relevant international **academic and professional conferences**.
- The project has designated a professional community manager to push information through **various media channels, including social media**.
- The **online community** convened and animated throughout the bulk of the project will provide an opportunity to communicate results real-time to a select group of stakeholders.

As the project is still ongoing, it is not possible to assess if all planned dissemination activities were implemented.

### **PROJECT IMPACTS**

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#### **Potential impact of the project:**

According to the Description of Work, the principal target audiences for the results of this project are existing and future social enterprises and policy makers. Expected impacts can be identified for each audience, as well as a certain number of assumptions underlying those expectations. The expected impacts outlined are:

- **Social enterprises:** Findings for better outcomes and decision-making related to operations, including: insight into the operation and governance models; help developing better financing strategies; insights into the social innovation processes and behavioural change; and creating and expanding impact.
- **Policymakers:** Policy recommendations will be formulated to help policy makers with the selection and prioritisation of support mechanisms for social enterprises, by giving insight into where / when formal



institutions need strengthening, timing of interventions (e.g. to coincide with tipping points in changes in cultural norms), etc., when and how to copy successes from other geographies based on historical factors and current policies, etc.

In addition, the project also outlined some key assumptions for impacts, which were also integrated into the design of the project itself. This includes engaging target audiences in the design phase of the project (pertinence of research), closely involving stakeholders during the project through a participatory approach (relevance and strength of research) and a strong focus on promoting uptake of findings (effectiveness of research).

- **Betweenness centrality:** Two participants were included in the top 1% in terms of centrality of the "Strengthening the ERA" network in FP7. A further four participants were included in the top 5% and four in the top 10%.
- **Scientific attractiveness:** The best ranked university participating in the project was the University of Barcelona (340<sup>th</sup>) followed by the University of Aveiro (528<sup>th</sup>)
- **Business attractiveness:** No highly ranked R&D investors participated in the project.

**Actual impact** as resulting from the project documents and/or commented during the interviews with project coordinators. Impacts can be clustered into four types<sup>55</sup>:

- **Scientific impact:** 15 papers and articles have been published as of September 2016. *No data is available on citations for this project.*
- **Social Media impacts:** The project has designated a professional community manager to push information through various media channels, including social media. *No social media analysis is available for this project*
- **Institutional and organisational impact:** The project seeks to direct benefit social entrepreneurs by promoting take up of key findings concerning the operation and success of social enterprises. The project thus has the potential to directly impact the organisation and strategy of social enterprises.
- **Policy impact:** Policy proposals have not yet been formulated as the project is ongoing. As mentioned, however, the project will integrate the evidence and insights that emerge into compelling policy propositions that directly respond to the needs set out by the EU.

#### **PATH-BREAKING ADVANCEMENTS**

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Path-breaking advancements concern new ways of undertaking or governing research. The SEFORIS project is notable for its high level of stakeholder engagement. This was aimed at ensuring the relevance and insight of the research conducted, as well as take-up of research findings and achieving the ultimate impacts sought after by the project. The following steps have been undertaken to date to engage with stakeholder groups:

- Involving social entrepreneurs and policy makers early on during the conception phase in order to ensure relevancy of our and to begin to develop relationships.
- Launching of a tailored program to follow 25 social enterprises in detailed dialogue during the project (Work Package 9), as it relates to their concrete efforts develop ideas into enterprises. This will provide a real-world test for our findings.
- Engagement with key intermediary groups: networks & associations of social entrepreneurs, conferences with relevant policy makers present, etc.
- Launching of an online survey (Work Package 3) targeting policy makers and over 1 000 social entrepreneurs. Through solicitation for participation in the survey, the project is also informing participants of the information and insights being developed through the project.

#### **EU ADDED VALUE OF THE PROJECT**

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The primary EU added value of the project that has been identified is the opportunity for networking between various stakeholder groups concerned by social entrepreneurship and innovation (both on the policy-making side and social entrepreneurs) and the comparative EU perspective adopted by the project, which adds analytical depth through the examination of social entrepreneurship in different contexts.

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<sup>55</sup> It is important to note that this project was ongoing at the time the case study was conducted. The key impacts stem entirely from the conclusions and recommendations of the project. It is thus not possible to provide any definitive conclusions at this stage concerning impacts.



**MAIN SOURCES**

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Project website  
Description of Work  
Various project deliverables

## Governance and Scientific Advice, RRI: FP6 Related to SaS

## **ECOSYSTEMS, SOCIETIES, CONSILIENCE, PRECAUTIONARY PRINCIPLE: DEVELOPMENT OF AN ASSESSMENT METHOD OF THE SOCIETAL COST FOR BEST FISHING PRACTICES AND EFFICIENT PUBLIC POLICIES – “ECOST”**

### **BACKGROUND AND CONTEXT OF THE PROJECT AND STRATEGIC NEEDS**

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Worldwide fishery resources continue to drift on the fringe of unsustainable situations, despite considerable effort in management and policy. In the past, biology, economics and sociology have each followed their own paths in analysing and advising fisheries management and policy, but have failed to be effective and helpful. Multi-dimensional parameters characterise these situations, and the issues involved are themselves multiples and cannot be reduced from one to another, as are also the multiple views of the actors on this issues.

### **SPECIFIC PROJECT OBJECTIVES**

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#### **Project objectives:**

The ECOST European International cooperation research project acknowledged an integrated assessment method for the area of fisheries, with cooperation spread over three continents (three countries for each continent), characterised by ecosystems of coastal upwelling (West Africa), delta (South East Asia) and coral reef (Caribbean).

The main objective of the ECOST project was to **develop a new approach for the evaluation of fishing activities and fishing policies in order to contribute to a better management of aquatic resources** which affect sustainable development in coastal zones around the world. For that purpose, the project aimed to develop a new approach based on the concept of societal cost. The project aimed to bring together life science and social science, with a triple theme applied relating to 'marine environment – fishing activities – civil society'.

By societal cost the project team referred to all costs linked to fishing activities: These may be ecological (alteration of the capacity of a system), economic (all costs linked to production, management, subsidies, and external factors), social (linked to choices made in public policy, food safety, provision for national or international markets, the eradication of poverty, and to development models).

The following set of specific and measurable objectives were set:

- **Development of far-reaching research into the capacity of traditional models** to take into account the reality of ecological, economic and social effects, using purely theoretical considerations, the experience of past application, and a questioning of the notion of value.
- **The construction of an efficient model for societal cost:** This model is based on the independencies between economics, sociology and ecology and is constructed by the use of a model which presently has the most potential for application to the domain of fishing as it takes into account the variable nature of resources and marine environmental changes.
- **The production of a generic version of the model for social impact.** This aimed to firstly revise the model according to the lessons learnt from its experimental application to the three chosen regions/ecosystems and secondly, consisted of a multi-disciplinary study of the biological, ecological, social and economic factors that may limit the wider application of the model to other regions/ecosystems in the world.
- **Definition of options for public policy by the formulation of certain principles** found within the framework of the CCRF for responsible fishing.

#### **SaS dimension objectives:**

The ECOST project consisted in developing a new approach for the evaluation of fishing activities in order to contribute to a better management of aquatic resources. More specifically, the project aimed to bring together life science and social science, with a triple theme applied relating to 'marine environment – fishing activities – civil society'. In that respect, the project's objective was in line with the objective of the Government and Scientific SaS dimension whose purpose was in particular to place the research activities at the heart of the society and thus in the policy-making process.

#### **Innovation Union objectives:**

"*Strengthening the knowledge base and reducing fragmentation*" is the first intermediate objective of the Innovation Union. By aiming to develop a new approach for the evaluation of fishing activities and fishing policies, the ECOST project was consisted with the Innovation Union.

#### **European Research Area (ERA) objectives:**

The ECOST project was the elaboration of a new approach related to fisheries and contributed therefore to an "*optimal circulation, access to and transfer of scientific knowledge including via digital ERA*" (fifth ERA priority).

## SaS Action Plan

The ECOST project aimed to define recommendations for public policy in the field of aquatic resource management and it is therefore directly linked with Action 36 relating to the establishment of guidelines on the use of expertise. The project was also designed to develop a method for sociological and economic evaluation or for the choice of ecosystems which can be useful for the setting-up of the European Common Scientific Reference Systems in relation with Action 38. The harmonisation of the evaluation practices were also considered to contribute to Action 28 relating to ensuring coordination of prospective activity at European level.

## PROJECT RESULTS AND OUTCOMES

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### Main achievements according to Project objectives

In accordance with the expected results outlined in the Description of Work, the ECOST project completed all deliverables. The implementation of the project led to the following outcomes:

- **Submission and publication of more than 100 journal papers.** In addition, the project team specified in the final report that 20 other journals were in the process of being submitted.
- **Edition of four Special Issues in International journal** as follows:
  - Marine Protected Area in the *Environmental Journal*;
  - Job satisfaction in *Social Research Journal*;
  - Caribbean Fisheries in *Etudes Caribéennes*;
  - West Africa fisheries in *Revue de l'ISRA*.
  - Two other Special Issues were also in progress: one dedicated to the Asian fisheries in *Asian Fisheries Sciences* and another on the Economic-Ecology interaction modelling in *Natural Resources Economic*. An edition was in preparation at the time of drafting the final report. The project team indicated its expected publication in the Internal Journal of Sustainable Development, with the special issue focussed on the multidisciplinary approach for modelling man-nature interface.
- **Publication of 17 book chapters and review of two books:**
  - Public policy in *Routledge, Taylor & Francis Group*;
  - ECOST results in *Willey-Backwell*.
- **Enrolment of 20 masters and PhD students** that completed their thesis. Students mainly came from third countries (Asia and Africa) enabling therefore knowledge transfer;
- **Conducting of 73 conferences and 44 workshop presentations on ECOST project.** The coordinator presented the adequacy of the social approach (ECOST approach) for the management of fisheries in African-Caribbean-Pacific countries at the second Ministerial conference held in the Seychelles (November 2010). The societal approach for managing fishery was part of the Ministerial recommendations.

According to the final report, all the planned objectives were achieved during the project.

### Main achievements according to SaS Dimensions

The implementation of the ECOST project led to the development of a new approach for the management of fisheries that was disseminated through different publications, conferences and workshops. Thus, the project met the objective of the SaS Government and Scientific Advice dimension to improve science systems. The project also had a significant social aspect with the development of sociological evaluation or the assessment of societal costs which contributed to bring closer science and society. The project also developed guidelines to advice public policy. This is in line with the SaS Dimension.

## DISSEMINATION AND ENGAGEMENT ACTIVITIES AIMED AT TRANSFERRING THE PROJECT RESULTS TO WIDER COMMUNITIES

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The results of the research were disseminated in a number of ways:

- **A series of high quality research papers** were produced and published in influential journals. These included journals covering fisheries science, fisheries economics and a range of other socio-economic, modelling or decision-making journals;
- Organisation of **key subject specific conferences** (for instance marine science conferences, economic and social conferences);
- **Organisation of plenary meetings/workshops:**
  - Meetings with fisheries scientists, economists and sociologists were held for the elaboration of the methodology and ideas to disseminate through the key scientific and economic community in the world;
  - Meetings with European and national fisheries managers were organised to facilitate the dissemination of methods, tools and results produced by the ECOST project through the usual institutional channels.

According to the final report, the dissemination activities were achieved during the project (more than 100 publications, 73 conferences, 44 workshops).

## PROJECT IMPACTS

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### Potential impacts

The ECOST project was expected to develop a new approach for the evaluation of fishing activities and fishing policies in order to contribute to a better management of aquatic resources that affect sustainable development in coastal zones around the world.

In this view, project partners outlined the following “potential impact” to policy developments:

- Firstly, it was expected that the project would impact on fisheries policies as it should contribute to the improvement of the management of fisheries in the world. The tools and methodologies that were to be developed were expected to allow management strategies to be formulated that ensure the sustainability of marine ecosystems at the highest level and provide greater security to fishers and fishing companies, enabling them to make the most appropriate investment or disinvestment decisions.
- Secondly, due to the multidisciplinary dimension of the ECOST project, it was expected to impact on a wider range of policies such as international cooperation, food aid, development programmes.

Furthermore, the project’s potential impact can be further assessed through the following indicators:

- **Betweenness centrality:** Three participating organisations of the ECOST project were amongst the most central participants in FP6.
- **Scientific attractiveness:** Two participants were ranked in the Leiden University ranking. Their ranking went from 494 (Sun Yat-Sen University) to 86 (University of Amsterdam).
- **Business attractiveness:** None project participant was not ranked as one of the biggest R&D investors amongst SiS participants.

### Actual impacts:

Beyond the expectations, the **actual impacts** can be classified as follows:

- **Scientific impact:** The ECOST project produced more than 100 journal papers in influential journal and published books chapters as well as two books. In addition, PhD and master students enrolled through the project that enabled them to complete their thesis. The impact of the project was mainly in Africa and Asia. Due to difficulties with the collaboration with several African participants, the scientific impact was judged by one project participant as ‘average’, with it expected that the project could have produced more publications.
- **Policy impact:** The development of a new approach for the evaluation of fishing activities and fishing policies was expected to have a policy impact. **In this way, the project teams produced a definition of public policy options towards a better integration of societal costs in public and private decision-making.** The World Bank and African regional organisations are working on the integration of those public policy options. In addition, the ECOST project results had an influence on the African Caribbean Pacific (ACPs) strategy, in particular the aspects related to fisheries and aquaculture.
- **Social media impact:** There was no relevant social impact identified in terms of social media listening buzz results. That can be partially explained by the state of technology at the time of the project implementation.

### Enablers and bottlenecks:

For the implementation of the project that implies third countries partners, it appears more than necessary to evaluate the real capacity of each project participant to deliver the work. In the “Description of work”, each project partner appears equal in terms of competencies and capacities however in practice, this is not the case, especially with third countries partners. In the ECOST project, some African partners were not capable to deliver the work which had an impact on the overall delivery: less publications were produced. At the beginning of the project, the coordinator had to analyse the real capacity of each project participant to fill the capacities gap and demonstrate flexibility skills to manage the related difficulties (consideration of difficulties that African partners could face, cultural differences, etc.).

## PATH-BREAKING ADVANCEMENTS

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None.

## **BEST PRACTICES**

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None.

## **EU ADDED VALUE OF THE PROJECT**

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Project partners specified in the "Description of work" their analysis of the added value in carrying out the work at the EU level. Firstly, the ECOST project benefitted from the differing experience of the researchers in the different EU member states.

The ECOST model was therefore considered by team members as a consequence of the synergy of the different experiences of the researchers and the different problems they are faced with in their individual countries.

Secondly, as the project benefitted from using the greatest level of expertise across Europe, the project resulted in a higher quality research output that could be achieved in any single country.

## **PARTICIPANTS AND RESEARCH TEAM**

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### **Participants**

- Number of participants: 16
- Number of countries involved: 14

## **MAIN SOURCES**

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Main sources of information include:

- eCORDA;
- CORDIS database;
- OPENAIRE database,
- ECOST CONSORTIUM (2005). Description of Work. Annex 1
- ECOST CONSORTIUM (2011). Final report

Interview with Pierre FAILLER

## **LAND USE POLICIES AND SUSTAINABLE DEVELOPMENT IN DEVELOPING COUNTRIES – “LUPIS”**

### **BACKGROUND AND CONTEXT OF THE PROJECT AND STRATEGIC NEEDS**

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The urgency to enhance sustainable development in developing countries is at its peak (e.g.: poverty levels are growing and food security is deteriorating, land conversions are uncontrolled, loss of biodiversity through land use change is high, pressure on forested areas is high, and land reforms are vital to sustained productivity and reduce food vulnerability, poverty alleviation and forest conservation). This urgency is accepted globally through various conscious commitments and interventions: the delineation (September 2000) and assessment (September 2005) of the Millennium Development Goals (MDGs).

In addition, global agreements have surfaced which aim to guide trade, mitigate climate change and promote equity in the use and conservation of biodiversity – where sustainable development is central. Within the framework of the above commitments, the manner in which land use patterns and land use change in developing countries are considered critical to sustainable development. In order to address this fundamental issue, it is essential to understand the linkages of land use policy to sustainable development in the specific context of a range of developing countries, and European policy options on biodiversity, climate and trade.

### **SPECIFIC PROJECT OBJECTIVES**

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#### **Project objectives:**

The LUPIS project aimed at **developing integrated assessment tools for sustainable development for application by scientists in a selected number of developing countries**. Attention was given to both natural and agricultural ecosystems. The project aimed at providing assessment procedures that enable documentation and understanding on impacts of land use policies on sustainable development, taking into account multi-functionalities and European policy options on biodiversity, climate and trade.

More specifically, the project included the following actions:

- Design of an analytical framework to assess the impact of land use policies on the sustainable development of developing countries;
- Identify the key driving forces for the utilisation of land and their impacts on sustainable development and externalities;
- Use of tools for impact assessment developed in SENSOR and SEAMLESS (EU integrated projects) both as building blocks in and guidelines for this project;
- Select, adapt and apply tools for understanding, planning and forecasting the impacts of land use policies;
- Define indicators and explore their thresholds in the context of sustainable development;
- Enhance existing knowledge in the field of data management.

#### **SaS dimension:**

The LUPIS project was designed to develop integrated assessment tools for sustainable development that were supposed to improve capacity for analysis of the impacts of land use policies on sustainable development. The tools developed were supposed to involve a variety of stakeholders and institutions. In that respect, the project's objective was relevant for the SaS Government and Scientific Advice dimension whose purpose was in particular to place the research activities at the heart of the society and thus in the policy-making process.

#### **Innovation Union objectives:**

By aiming to design an analytical framework that was supposed to enhance existing knowledge in the field of data management, the LUPIS project was in line with the first intermediate objective of the Innovation Union namely *“strengthening the knowledge base and reducing fragmentation”*.

#### **European Research Area objectives:**

The conduct of the LUPIS project related to the development of an analytical framework that enabled documentation and understanding on impacts of land use policies on sustainable development and therefore contributed to an *“optimal circulation, access to and transfer of scientific knowledge including via digital ERA”* (fifth ERA priority).

#### **SaS Action Plan**

The LUPIS project was designed to develop a common analytical framework for Impact Assessment which can participate in the development of European Common Scientific Reference Systems under the Action 38. The conclusions established by the project may also participate in Action 36 to provide guidelines for the use of the impact assessment tools. The project also contributed to the Action 28 through the harmonisation of practices at European level.

## PROJECT RESULTS AND OUTCOMES

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### Main achievements according to Project objectives

The conduct of the LUPIS project implemented diverse efforts to improve the understanding of land use policies in the context of sustainable development. It led to the following results:

- Based upon two complementary methodologies (SEAMLESS and SENSOR), a methodological framework for sustainability impact assessments (SIA) was developed. This framework allowed ex-ante assessments of policies;
- Seven case studies were carried out in seven developing countries (China, India, Indonesia, Brazil, Tunisia, Kenya and Mali) for the purpose of the performing of ex-ante impact assessments of land use policies;
- Some general conclusions emerged regarding the development and use of tools to assess the impacts of land use policies for sustainable development in developing countries.
- Development of the LUPIS Data Portal that aimed at providing access to data and results.
- According to the final report, all significant planned objectives have been achieved.

### Main achievements according to SaS Dimensions

The LUPIS project in particular developed a methodological framework for sustainability impact assessment that was supposed to enable the performing of ex-ante assessments. Those assessments were designed to include a variety of stakeholders and were supposed to help policy-makers to understand the intended and unintended impacts of the assessed policies on diverse stakeholders and institutions. Thus, the project results fully met the objective of the SaS Government and Scientific Advice dimension.

## DISSEMINATION AND ENGAGEMENT ACTIVITIES AIMED AT TRANSFERRING THE PROJECT RESULTS TO WIDER COMMUNITIES

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The conduct of the LUPIS project led to three main types of dissemination activities:

The elaboration of LUPIS Data Portal that aimed at providing access to data and results from the LUPIS project.

Organisation and participation to a series of events:

- Conferences were organised to present the project methodology, the methodological framework for sustainability impact assessments and project results. Conferences targeted different types of public (Scientific community, researchers, general public) and size of audience (20 to 600);
- Participation to forums (such as the International Policy Forum) to present and discuss the achievements of LUPIS project;
- For the same purpose, seminars were also organised to target policy makers, researchers, and academicians;
- For the purpose of the case study in China, visits were organised to introduce LUPIS and discuss with the local experts and officials;
- Workshops were implemented to disseminate results to experts, researchers and enterprises in the related field.

Drafting of a variety of papers:

- Publication of Policy Briefs to inform on the findings of the project;
- A list of publications were drafted.

It was difficult to assess the achievement of all the foreseen dissemination activities. The final report did not directly refer to the two volumes planned to be published. Moreover the target group for dissemination are quite different from the planned target group (policy makers, donor agencies, NGOs and academic community).

## PROJECT IMPACTS

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### Potential impacts

Through, in particular, the development of a methodological framework for sustainability impact assessment (SIA), the LUPIS project was supposed to improve the systemic knowledge of the impact that different land use options would have on the sustainable development of developing countries.

The project's potential impact can be further assessed through the following indicators:

- **Betweenness centrality:** The project had four participating organisations that were amongst the most FP6 central participants;



- **Scientific attractiveness:** The LUPIS project had three participating organisations ranked in the Leiden University ranking as follows: 586<sup>th</sup> place for the Nanjing Agricultural University, 255<sup>th</sup> place for the University of Oslo and 80<sup>th</sup> place for the Wageningen University.
- **Business attractiveness:** The LUPIS project had no participant ranked as one of the biggest R&D investors amongst SaS participants.

#### **Actual impacts:**

Actual impacts can be classified into the following sections:

- **Scientific impact:** The conduct of the LUPIS project led to a series of publications (27 are already published and 8 were under review at the moment of the publication of final dissemination report) and a book entitled "Land use policies for sustainable development: exploring integrated assessment methods". This suggests a positive impact from a scientific point of view;
- **Organisation and institutional impact:** The LUPIS project was not supposed to have organisation and institutional impact and nothing is specified in this way;
- **Policy impact:** The LUPIS project developed a methodological framework for sustainability impact assessment (SIA) that enables ex-ante policy impact assessments supposed to help policy-makers to understand impacts of the assessed policies. Nevertheless, no information can be found whether the framework is used by policy-makers;
- **Social media impact:** No relevant social impact was identified in terms of social media listening buzz results. That can be partially explained by the state of the technology at the time of project implementation. However, the project partners actively disseminated results through their website.

#### **PATH-BREAKING ADVANCEMENTS**

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None.

#### **BEST PRACTICES**

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None.

#### **EU ADDED VALUE OF THE PROJECT**

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The LUPIS project was of EU added value by contributing to the overall ambitions of the European Community's development policy. The EU reaffirmed their commitment to poverty eradication, ownership, partnership, delivery of more and better aid and the promotion of policy coherence for development. Furthermore, sustainable development includes good governance, human rights and political, economic, social and environmental aspects. The LUPIS project's methodological framework for sustainability impact assessment assessed the impacts of sustainable development in its environmental, economic and social dimensions. The LUPIS project was therefore consistent with the EU commitment in the development policy area.

#### **PARTICIPANTS AND RESEARCH TEAM**

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##### **Participants**

- Number of participants: 16
- Number of countries involved: 13

##### **MAIN SOURCES**

The eCORDA;  
CORDIS database;  
OPENAIRE database;  
LUPIS CONSORTIUM (2005), Annex 1 - Description of Work  
LUPIS CONSORTIUM (2012), final report  
LUPIS CONSORTIUM (2011), Final dissemination report

## **MEASURING THE DYNAMICS OF ORGANISATIONS AND WORK- "MEADOW"**

**Framework Programme: FP6 related to SaS**  
**Action line/Part: -**  
**Activity: -**  
**Area: -**  
**Dimension: Governance and Scientific Advice**  
**Tool: Coordination Action**  
**Project Call For Proposal: FP6-2004-CITIZENS-5**  
**Status: Closed**  
**Total cost: € 1 198 860.00**  
**Total EU funding: € 1 198 860.00**  
**Website: <http://www.meadow-project.eu/>**  
**Period: 01/03/2007 - 28/02/2010**  
**Subjects: Coordination and Cooperation - Scientific Research - Social Aspects**  
**Project ID and Acronym: ID: 28336, ACRONYM: MEADOW**

### **BACKGROUND AND CONTEXT OF THE PROJECT AND STRATEGIC NEEDS**

Over the past decade, policy-makers have come to recognise the importance of knowledge in wealth creation and the prominent role of innovation in economic growth. At the EU level, these principles were officially reflected in the Lisbon Strategy, through the goal of making the EU "become the most competitive and dynamic knowledge-based economy in the world" (Lisbon European Council, March 2000). With this strategy, competitiveness was directly linked to innovation dynamics and the knowledge base of the economy. Fostering these two dimensions notably required considering the role of organisations due to the key role they play in developing human capital and skills. Processes of knowledge creation in organisational settings are complex and involve interactions between a large variety of actors and stakeholders. Also, developing the right organisational structure appeared crucial to promote innovation-oriented skills.

Yet, no harmonised data on organisational practices or processes of organisational change were gathered in the wake of the Lisbon Strategy. This lack of data was considered a hindrance to an effective benchmark of policies for knowledge development, use, and for innovative performance. The MEADOW project aimed to help bridge this gap.

### **SPECIFIC PROJECT OBJECTIVES**

The MEADOW project was designed to define guidelines for the collection and interpretation of harmonised data at EU level on organisational change and its economic and social impacts. The guidelines set out were expected to foster comparability of surveys on organisational change and work restructuring, as well as provide norms for the construction of survey instruments on organisational change. To achieve the overall purpose of the project, the following intermediary objectives were defined:

- Objective 1: Integrate existing knowledge on the dynamics of organisations and work - Provide an overview of research traditions and synthesis of theoretical and empirical research findings and analysis of the consequences of the main theories of organisational change on measurement strategies;
- Objective 2: Map and assess existing quantitative data sources of the National and European Statistical System at the employer level and at the employee level – Gather information about the survey instruments on organisational change in Europe and about major experience in non EU countries and exchange with the designers of these survey instruments about the survey strategy, the methodology, the uses of the survey or the difficulties encountered;
- Objective 3: Explain the complementarities between the measures proposed in the Guidelines and those measures proposed in existing OECD/Eurostat survey manuals – Undertake a comparison with the Oslo manual, the Eurostat methodological material on ICT, the OECD Knowledge Management Handbook and the Canberra manual on human resources for science and technology.
- Objective 4: Find an agreement on "best practices" for European survey instruments on organisational change and its economic and social impacts
- Objective 5: Test the Guidelines - Discuss the various survey methodologies, design an employer and an employee questionnaire and test the questionnaire at a small scale
- Objective 6: Exploit and disseminate the Guidelines

### **SaS dimension**

As it aimed to increase comparability of data and ease data collection on organisational change, therefore making information more accessible and relevant, the objectives of the MEADOW project were consistent with the SaS Governance and Scientific Advice objective of promoting knowledge production and the competitive use of knowledge.

### **Innovation Union Objectives**

Organisational change is explicitly identified by the Innovation Union as an innovation dimension that needs to be fostered. In that respect, MEADOW's purpose is consistent with the Innovation Union goals. Moreover, the long term objective of MEADOW was to promote organisational change for companies to develop knowledge and human capital, as a way to increase their competitiveness. The project was thus in line with the goal of the Innovation Union related to making companies more competitive.

### **European Research Area (ERA) Objectives**

The purpose of the MEADOW project was consistent with the ERA priority related to guaranteeing access to and uptake of knowledge by all.

### **SaS Action Plan**

The MEADOW project was designed to ensure the harmonisation of data collection, especially through survey at a European level. The project was therefore linked with the Action 28 which promotes the coordination of research at a European level. The project also contributed to the Action 36 through the development of guidelines for the use of a European survey. The coordination and harmonisation of practices related to survey and data collection in Europe will also contribute to the Action 38 to set up the European Common Scientific Reference Systems.

## **PROJECT RESULTS AND OUTCOMES**

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### **Main achievements according to Project objectives**

- Concerning objective 1, an overview of the "state of the art" techniques in current organisational research, a synthesis of theoretical and empirical research findings, and an analysis of the consequences of the main theories of organisational change on measurement strategies were conducted.
- Concerning objective 2, information was collected on the "state of the art" techniques in survey instruments on organisational change in Europe and about major experiences in non EU countries. Meetings and discussions with the designers of these survey instruments were organised to exchange on the survey strategy, the methodology, and different possible uses of the survey, core results and difficulties encountered. Eventually a synthesis of the lessons learnt from these experiences was drafted.
- Concerning objective 3, the following dimensions were identified and investigated:
  - Complementarities between the notion of organisational innovation being developed in the current revisions of the Oslo Manual and the notion of organisational change developed in the Guidelines;
  - the complementarities between the Eurostat methodological manual on ICT and measures of ICT use proposed in the Guidelines;
  - Complementarities between the organisational measures developed in the OECD. Knowledge Management Handbook and the measures of new managerial tools proposed in the Guidelines; and
  - Complementarities between the Canberra manual on human resources for science and technology and HRM measures proposed in the Guidelines.
- Concerning objective 4, priorities in measurement of organisational changes and its impacts with users and key stakeholders were identified and discussed. A general survey structure consistent with priorities and relevant sets of indicators at the employer and/or the employee level was developed. Best practices in survey methods were determined. A core set of indicators to be operationalised into questions was defined. The applicability of the core set of indicators in the European countries in the Consortium were discussed. Eventually, the project identified different strategies to build up comparative analysis based on the implementation of the Guidelines.
- Concerning objective 5, a benchmark of various survey methods was conducted, an employer and an employee questionnaire operationalising the core set of indicators into survey questions were drafted and translated into several languages before actually testing the guidelines on a moderate scale. Afterwards the questions were revised to reflect the outcome of the field tests.
- Concerning Objective 6 on the exploitation and dissemination of the Guidelines, interactions were fostered at key milestones with users, stakeholders and national and European data collection institutions. Moreover the project mapped competences in Europe for building up a research infrastructure for the implementation of the Guidelines and actively sought to involve European institutions monitoring data collection. The project also involved users and stakeholders in the implementation of the project through dissemination of methods and findings to the European scientific community, to policymakers, to other interest groups and to those engaged with non-European experts on the understanding the dynamics of organisations and work in the knowledge based economy.
- According to the final report, all the planned objectives were achieved during the project.

### Main achievements according to SaS Dimensions

The MEADOW project's results were in line with the Governance and Scientific Advice SaS dimension as they contributed to building an open, effective and democratic European knowledge-based society and stimulate science and research policies. The MEADOW project was moreover consistent with the trend identified in the later stage of FP6-SaS projects on new management strategies, through the definition of guidelines for the collection and interpretation of harmonised data at EU level on organisational change and its economic and social impacts.

### DISSEMINATION AND ENGAGEMENT ACTIVITIES AIMED AT TRANSFERRING THE PROJECT RESULTS TO WIDER COMMUNITIES

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Dissemination was explicitly identified in the objectives of the MEADOW project and managed through a dedicated work package. Dissemination was first implemented through ensuring contact with European data collection institutions. Tools and methods were moreover developed:

- A **website for the project** was created (<http://www.MEADOW-project.eu>) providing a downloadable version of the final published version of the MEADOW guidelines, downloadable versions of the core master English employer and employee questionnaires (and their translation in 7 languages), downloadable versions of three background documents resulting from the activities of WP2 and WP3, as well as the MEADOW newsletter and policy brief.
- Two **newsletters and a policy brief** were issued and sent to all institutions and people having contributed to the project's General Assembly and Stakeholder meetings, as well as to a list of people identified through the national contacts of each of the MEADOW partners.
- The project's Advisory Board helped **make contact with key stakeholders** at the national and European levels .
- A number of **institution observers** were invited to contribute to the project, coming from institutional organisations, national statistical services and other organisations from developing countries and new EU member States. These institutions were invited to interact informally in workplaces where they have specific interests.
- **Two Stakeholders meetings** were organised, on 4-6 February 2009 and 29 January 2010. The first one aimed at presenting the MEADOW survey design to representatives of the national statistical offices, while the second focused on the EU policy community.
- However, on the basis of the collected documentation, it is not possible to assess whether all planned dissemination activities were implemented. For example, there is no evidence of the presentation of the guidelines during the meetings.

### PROJECT IMPACTS

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#### Potential impact

The MEADOW project pointed to two main potential impacts:

- **Contribution to standards:** The project was expected to provide the design of an infrastructure that could produce harmonised data in the field of organisational change.
- **Contribution to policy developments:** The developed Guidelines were notably meant to highlight what aspects of survey instruments could help governments in monitoring and designing policies. Moreover, by fostering data collection and processing on organisational change, the MEADOW project was intended to contribute to creating a key resource for European policy-makers in innovation, research, education, employment and social inclusion policy.

**Potential impacts** can be further assessed through the following indicators:

- **Betweenness centrality:** out of the fourteen project participants, eight were ranked amongst the top 1% most central institutions having participated in FP6. 10 were amongst the top 5%;
- **Scientific attractiveness:** out of the six universities having participated in the project, three appeared in the Leiden University ranking, ranging from the 414<sup>th</sup> to 212<sup>th</sup> position.
- **Business attractiveness:** No participants were ranked amongst the biggest R&D investors having participated in SaS projects.

**Actual impacts** of the project can be summarised as follows:

- **Scientific impact:** The definition of guidelines for the international collection and comparability of data on organisational change allowed for the development of a framework capable of strengthening research in that

field. The project had significant scientific impact as its results were used and furthered in three following projects funded under FP6, FP7 and H2020: WORKS, INDGRID 1 and INGRID 2.

- **Social impact:** no reference to the project could be found in social media.
- **Institutional and organisational impact:** The MEADOW project aimed at having an impact on the structure of organisations by catalysing research in the field of organisational change. Ultimately, research in that field should achieve stronger results and enable to define what types of organisation lead to more innovation and knowledge development. The project coordinator was contacted by the Luxemburg government, the World Bank as well as the OECD to use the results of the project to develop their own programmes.
- **Policy impact:** the project coordinator put forward significant policy impacts, as several countries explicitly implemented the guidelines developed in MEADOW: in Sweden, Finland, Denmark and Norway.

An enabler of such results was notably the fact that the project results were meant to become a public good, to favour appropriation and use by any organisation.

### PATH-BREAKING ADVANCEMENTS

None.

### BEST PRACTICES

None.

### EU ADDED VALUE OF THE PROJECT

As the main goals of the project were to ensure comparability of data collected on organisational change and set guidelines to harmonise research methods in an international perspective, it made sense to organise the MEADOW project at the EU level. One Member State could not have taken responsibility for setting guidelines to be used internationally and harmonise data collection methods.

On the financial level, the project coordinator pointed out during the interview that the EU fund does not duplicate but complements national funding and ensures continuity to research projects.

### PARTICIPANTS AND RESEARCH TEAM

#### Participants

Number of participants: 14

Number of countries involved: 9

	Type	Country	Role	Previous participations to FP
Centre d'Etudes de l'Emploi	REC	FR	Coordinator	0
Bundesagentur Fuer Arbeit - Institut Fuer Arbeitsmarkt- Und Berufsforschung	REC	DE	Participant	0
National Institute Of Economic And Social Research	REC	GB	Participant	5
Szociologiai Kutatointezet - Magyar Tudomanyos Akademia	REC	HU	Participant	0
University Of Kent	HES	GB	Participant	0
Maastricht Universiteit	HES	NL	Participant	0
Stichting Organisatie Voor Strategisch Arbeidsmarktonderzoek	REC	NL	Participant	0
Nederlandse Organisatie Voor Toegepast Natuurwetenschappelijk Onderzoek (Tno)	REC	NL	Participant	0
Université De Nice-Sophia Antipolis	HES	FR	Participant	0
Aalborg University	HES	DK	Participant	19
Goeteborg University	HES	SE	Participant	76
Fraunhofer-Gesellschaft Zur Foerderung Der Angewandten Forschung E.V.	REC	DE	Participant	114
Katholieke Universiteit Leuven	HES	BE	Participant	163

Stock-taking and meta-analysis of Science in Society projects throughout FP6 and FP7  
Final Case Studies

	Type	Country	Role	Previous participations to FP
Consiglio Nazionale Delle Ricerche	REC	IT	Participant	151

### Team Composition

Team Size: 39 members

GENDER				
Female		Male		Unknown
36%		64%		0%
SENIORITY				
Average		Junior		Senior
5%		5%		90%
PhD				
No			Yes	
31%			69%	
BACKGROUND				
Applied Sciences	Health Sciences	Humanities & Social Sciences	Natural Sciences	Unknown
2,56%	13%	79%	3%	3%

\*The data are based on the analysis of the provided project's Description of Work.

### DELIVERABLES AND PUBLICATIONS

DELIVERABLE NO.	DELIVERABLE NAME	DUE DATE OF DELIVERY (month)	ACTUAL SUBMISSION DATE: (month)
1. D1.1	Minutes of kick-off meeting	2	-
2. D8.1	Project Webpage	2	-
3. D2.1	Draft chapter: State of the art and concepts	9	10
4. D3.1	Draft chapter: Priorities and definitions	9	10
5.1 D1.2	Management Report To the EU	12	-
6. D2.2	Revised chapter: State of the art and concepts	14	14
7. D3.2	Revised chapter: Priorities and basic definitions	14	14
8. D8.2	Minutes of the stakeholder meeting	24	-
5.2 D1.2	Management report to the EU	24	14
9. D4.1	Draft chapter: Employer-level measures	23	-
10. D5.1	Draft chapter: Employee-level measures	23	-
11. D6.1	Draft chapter: Statistical methods	23	-
12. D7.1	Synthesis report on testing the Guidelines	33	34
13. D4.2	Revised chapter: employer-level measures	33	34
14. D5.2	Revised chapter: employee-level measures	33	34
15. D6.2	Revised chapter; Statistical methods	33	34
16. D8.3	Minutes of the meeting with statistical gathering services	34	-
17. D8.4	Revised Guidelines	36	-
5.3 D1.2	Management report to the EU	36	39

### Related publications

No related publications were mentioned in the related documentation nor found on the internet.

### MAIN SOURCES

MEADOW Description of Work  
 MEADOW Final Publishable Report  
 MEADOW First Activity Report  
 MEADOW Y3 Activity Report  
 MEADOW Project Website: <http://www.meadow-project.eu/>  
 Interview with the project coordinator Nathalie Greenan

## **CONTACT POINT NETWORK TO ATTRACT YOUNG AFRICAN SCIENTISTS TO PARTICIPATE IN EU-FUNDED RESEARCH PROGRAMMES ON PRD - "CPN-YAS-PRD"**

**Framework Programme: FP6 related to SaS**  
**Action line/Part: -**  
**Activity: -**  
**Area: -**  
**Dimension: Governance and Scientific Advice**  
**Tool: Coordination Actions**  
**Project Call For Proposal: FP6-2005-LIFESCIHEALTH-6**  
**Status: Closed**  
**Total cost: € 1 083 606**  
**Total EU funding: € 1 083 606**  
**Website: [www.cpnafrika.eu](http://www.cpnafrika.eu) (no longer active)**  
**Period: 01/08/2006 - 31/07/2009**  
**Subjects: Coordination and Cooperation, Medicine and Health, Social Aspects**  
**Project ID and Acronym: 37735 - CPN-YAS-PRD**

### **BACKGROUND AND CONTEXT OF THE PROJECT AND STRATEGIC NEEDS**

HIV/AIDS, malaria and tuberculosis annually account for over 5 million deaths per year around the world, with their impact concentrated predominantly in low income developing countries (LIDC). Most of the disease burden in LIDCs finds its roots due to poverty. However, the severe impact of these poverty-related diseases (PRD) on society and socio-economic development in LIDCs is also an important driver of poverty, creating a cycle of vulnerability and illness. It has been widely recognised that decreasing the number of infections and the impact of diseases on patients will have a positive influence on poverty alleviation in Africa.

Developed countries have provided funding for many PRD research programmes in Africa. This research has been financially supported by the EU, Global funds to fight AIDS TB and Malaria, World Bank multi-sectoral HIV/AIDS project, as well as many other instruments and bilateral and multilateral donors. However, the field of PRD research has historically been dominated by Western or well established African scientists. More specifically, information on EU-funded projects in the field of PRD has not sufficiently reached younger generations of African scientists. There is thus a need to promote research on PRD at a local level and improve its sustainability.

### **SPECIFIC PROJECT OBJECTIVES**

The overall objective of this project was to encourage and facilitate the participation of young African scientists in EU funded projects on poverty related diseases in order to increase the level of recruitment of scientists to PRD research from African countries. The project also sought to strengthen joint cooperation between LIDCs and the EU to address the three major communicable diseases related to poverty (HIV/AIDS, malaria and tuberculosis).

In order to achieve the overall objectives, the following specific objectives were set out in the Description of Work:

- **Specific objective 1:** To coordinate the establishment of a stable and effective **Regional Contact Point system** in sub-Saharan Africa;
- **Specific objective 2:** To coordinate the **training of RCP staff** in the management of issues related to participation in EU research activities using the expertise of National Contact Points in Europe and already established networks of consortia and relevant research institutions;
- **Specific objective 3:** To establish **sustainable linkage** between European NCPs and African RCPs;
- **Specific objective 4:** To **reinforce and consolidate the research system** in sub-Saharan African countries in order to facilitate their involvement in the opening-up of the European Research Area in the region;
- **Specific objective 5:** To support the **preparation of activities** related to future Framework Programme (FP7) in sub-Saharan African countries;
- **Specific objective 6:** To **strengthen the coordination and complementarities** with activities carried out by other national and international institutions on PRD; and
- **Specific objective 7:** To **further develop RCPs** as a network to support the community's external relations with the sub-Saharan area.

### **Programme objectives**



According to SaS work programmes, the objective of SaS in the domain of governance and scientific advice is to create conditions under which policy decisions in multi-level governance are more effective in meeting society's needs, and more soundly based on science to help take better account of the relationship between technological innovation and social change. CPN-YAS-PRD is focused on opening up FP7 programmes in the area of PRD to young African scientists. It does not appear to be clearly aligned with this objective. However, the project indirectly contributed to gender objectives through its specific focus on young female researchers.

### **Innovation Union objectives**

According to the 2010 Commission Communication on the Innovation Union, the EU must 'work better with [its] international partners' to achieve its objectives in this domain. This includes opening access to R&D programmes. In this respect, the CPN-YAS-PRD project contributed to increasing access to EU research programmes in the domain of PRD.

### **European Research Area objectives**

According to the 2012 Commission Communication on a reinforced European Research Area partnership for excellence and growth, the 'external dimension' is a vital, cross-cutting and integral part of ERA. As this project sought to increase the participation of Young African Scientists in FP7, it can be considered to be well aligned with this transversal objective of the ERA. Whilst these were objectives internal to the ERA, the project also contributed to gender mainstreaming in research through its specific focus on female researchers and 'an open labour market for researchers'.

### **SaS Action Plan**

This project can be seen as contributing indirectly to the promotion of scientific culture and education since the target group set out by the Action Plan is the public and not researchers themselves. In any case, the project contributes to the objective of bringing science policy closer to the citizens through its gender equality aspects.

As the project aimed to establish, train, coordinate and develop a networks of RCPs, it can be assessed that it is consistent with Action 35 of the SaS Action Plan which promotes the improvement of practices in risk governance through networking. Moreover, it can be considered that the project aims to ensure coordination of prospective activity (Action 28) in relation to PRD research, though this activity is not purely focused on a European level but rather an International level with the integration of researchers from Africa.

## **PROJECT RESULTS AND OUTCOMES**

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### **Main achievements according to Project objectives**

On the basis of a review of the outcomes of CPN-YAS-PRD, the project can be considered as reasonably successful, although it faced some challenges. Work was implemented through four work packages covering management, training, RCP advisory services and coordination activities and awareness raising. The following points present the project outcomes for each specific objective:

- **Specific objective 1** concerned the establishment of a stable and effective Regional Contact Point system in sub-Saharan Africa. Three Regional Contact Points were established in Zambia, Cameroon and Uganda and are run by the three African partners of the CPN-YAS-PRD project. In addition, Local Contact Points were established in nine other African countries and supported by CPN-YAS-PRD.
- **Specific objective 2** concerned the coordination of the training of RCP staff in the management of issues related to participation in EU research activities. Activities were undertaken and tools developed to allow NCPs to analyse their activities and translate them into useful information for the establishment of RCPs in Africa. Training and teaching materials were also translated into easy-to-distribute tools to enable future use by contact points.
- **Specific objective 3** aimed to establish sustainable linkage between European NCPs and African RCPs. Work Package 4 specifically targeted intra and inter-regional and north-south networking. A number of events and initiatives aimed at networking and capacity building brought together stakeholders from north and south during the project.
- **Specific objective 4** aimed to reinforce the research system in Sub-Saharan Africa and facilitate African involvement in the opening-up of the European Research Area in the region. The project succeeded in conducting information dissemination and awareness raising activities and delivering consulting services to young African researchers through the regional and local contact points.
- **Specific objective 5** concerned the preparation of activities for FP7. The information points established advised African scientists on matters relating to FP7 funding in the area of PRD and performed activities to raise awareness of the project in the African research community. An FP7 e-learning tool was notably launched that contains the information about FP7 for the African scientists. The e-learning tool developed by Archimedes Foundation consists of 10 chapters. A website was also created to enable African researchers to access general information about FP7 and CPN-YAS-PRD.



- **Specific objective 6** aimed to strengthen the coordination and complementarities with activities carried out by other national and international institutions on PRD. Work Package 4 specifically targeted intra and inter-regional and north-south networking. Under this work package, over a dozen activities were held, such as participation in events, cooperation with international organisations and projects.
- **Specific objective 7** aimed to **further develop RCPs** as a network to support the community's external relations with the sub-Saharan area. The tools and knowledge developed and transmitted by the project has contributed to the sustainable development of RCPs and LCPs.

As outlined under the specific objectives above, some issues were faced in relation to the effectiveness of the project. These are detailed below.

- **Specific objective 2: There was no mention that mentoring activities took place to build RCP activities as indicated in the Description of Work. The difficulty of recruiting and maintaining partners as LCPs negatively impacted these activities according to project documentation.**
- **Specific objective 3:** some sustainability issues were faced concerning participants, which undermined the sustainability of these linkages. The Kenyan partner (ACCT) withdrew after month 12, the coordinator (ESSB) withdrew after month 18 and Senter-Novem GL withdrew after month 24. A new coordination team had to subsequently be set up by the Fobang Foundation and the German Aerospace Centre and a new partner was added to the consortium (Makerere University) in order to establish a new LCP had to be established in East Africa. The financial sustainability of the network created can also be raised.
- **Specific objective 4:** no KPIs were reported concerning the number of researchers that received information through different channels or the number of project applications submitted with the support of the network. It is thus not possible to verify to what extent this objective was achieved. Project documentation did outline challenges in terms of engaging with young African researchers. During outreach events conducted by LCPs many target groups considered that it was beyond their capacity to apply for and win a competitive grant through EU programmes. In terms of seeking to reinforce the research system in the region beyond improving access to information on FP7. Despite it being one of the specific objectives, few actions were specifically addressed at increasing capacity as such aside from a relatively modest number of YAS fellowships.
- **Specific objective 5:** Due to the un-timely disbursement of funds to the partners, efforts towards organising events in Africa or announcing fellowships for African scientists were negatively impacted. FP7 pathfinder was also introduced as a tool designed to complement the FP7 e-learning tool. It helps young African scientists to find the appropriate Research Programmes within FP7. A forum was also made available on the project website.
- **Specific objective 7:** during the project, the lack of financial resources constantly hindered the progress of many activities, especially organisation of PRD seminars and information days. It thus appears unlikely that such a network could continue to exist without external financing.

#### **Main achievements according to Programme objectives**

The project was not aligned with SaS objectives in the area of governance and scientific advice. However, the project indirectly contributed to gender objectives through its specific focus on young female researchers.

#### **Main achievements according to SaS Dimensions**

As this project was not aligned with dimension-specific objectives, it did not represent a cornerstone in the evolution of the programme.

However, it seems that the project contributed to improving the understanding of the place of science and technology in sub-Saharan African countries, as it reinforced and consolidated their research system.

#### **DISSEMINATION AND ENGAGEMENT ACTIVITIES AIMED AT TRANSFERRING THE PROJECT RESULTS TO WIDER COMMUNITIES**

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Dissemination was a core element of the project, as one of its principle objectives was to fill the information gap amongst African scientists concerning access to EU-funded research programmes in the domain of PRD. Dissemination was principally achieved through the following channels:

- Consultancy services provided to young African researchers concerning access to EU funding instruments.
- A dedicated project website fed with content by project partners, as well as the LCPs.
- Online information tools designed to provide information about accessing EU research programmes.
- A database was established to allow RCPs, LCPs and different African researchers upload their information.
- The organisation of information events by the RCPs and LCPs where they presented the possibilities provided by FP7 to African scientists and administrators

- RCPs and LCPs also participated international scientific meetings in Africa for purposes of information dissemination.

However, as explained in the section above, the lack of financial resources constantly hindered the progress of many activities, especially the organisation of PRD seminars and information days.

## PROJECT IMPACTS

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### Potential impact of the project

According to the Description of Work, the impact that the project sought to achieve can be synthesised as follows:

- Dissemination of information through the establishment of the RCPs and LCPs and the positioning of RCPs to provide similar services to the young African scientists as that provided by the European NCP to the European scientists and other institutions.
- Enabling access to innovation, adapting and delivering technology and information.
- Improving generally the quality of research by involving young African scientists.
- Enhancement of South-South network and coordination
- Modification of current health policy in the region by involvement of decision makers
- Increase the regional competition and cooperation on PRD, and building professional connection between scientists in national system and international research centres, and hence fosters the development of new interventions in PRD.
- **Betweenness centrality:** One participant was included in the top 1% in terms of centrality of the "Strengthening the ERA" network in FP6. A further two participants were included in the top 5% and three in the top 10%.
- **Scientific attractiveness:** No participants were ranked in the Leiden ranking of Universities or Research Centres.
- **Business attractiveness:** No highly ranked R&D investors participated in the project.

**Actual impact** as resulting from the project documents and/or commented during the interviews with project coordinators. Impacts can be clustered into four types:

- **Scientific impact:** No significant scientific impact for this project.
- **Social Media impacts:** No significant impact on social media.
- **Institutional and organisational impact:** The project clearly contributed to the creation of new organisations (RCPs and LCPs) aimed at increasing access of young African scientists to EU funding opportunities. The project also invested in capacity building and training tools in order to transfer experience and best practices from European NCPs to their African counterparts.
- **Policy impact:** The coordination action added value to other initiatives taken by DG Research in combating the three major killer diseases and efforts by DG Development, DG Aidco, DG External Relation relation, DG Trade etc. to alleviate poverty and promote private sector development. The database created by the RCPs provided linkage to the several other EC grant programmes, European national research programmes, and to European donor institutions.

## PATH-BREAKING ADVANCEMENTS

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The project was considered to have significant policy impact, as outlined above, as the coordination action added value to other initiatives taken by DG Research and was therefore considered as contributing to advancements in relation to the combating the three major diseases.

## BEST PRACTICES

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The project engaged in significant networking activities with national and international organisations, as well as other EU initiatives. As an example, fruitful cooperation took place with CAAST-Net, facilitated by the dual membership of certain project partners in these two networks. CAAST-Net is a Coordination Action funded under the FP7-INCO-2007 programme aiming at establishing a platform to promote improved cooperation in science and technology between Europe and Sub-Saharan Africa across all themes.

DEUTSCHES ZENTRUM FÜR LUFT- UND RAUMFAHRT (PT-DLR) was a member of both CPN-YAS-PRD and CAAST-Net. In April 2008, a document was composed by PT-DLR elaborating overlaps and possible synergies between the two projects and sent to the partners of CPN-YAS-PRD and CAAST-Net. Several PT-DLR internal meetings also took place to discuss synergies between the two projects. It was decided that staff of the National Contact Point Life Sciences

(involved in CPN-YAS-PRD) would participate in preparation and execution of an event to be organised in Africa aiming at identifying new topics for SICA projects within the theme HEALTH. This provided the opportunity to also get other partners and LCPs of CPN-YAS-PRD invited and involved in this event.

### EU ADDED VALUE OF THE PROJECT

According to the analysis of project documentation, the following elements of EU-added value can be identified for this project:

- **Leveraging existing networks to multiply impact:** The cooperation between RCPs in Africa and European NCPs offered European researchers and European consortia an access to the talented African researchers. On the flip side, African RCPs and LCPs benefited from the collective experience of European NCPs.
- **Coherence & synergies with other EU initiatives:** The coordination action added value to other initiatives taken by DG Research in combating the three major killer diseases and efforts by DG Development, DG Aidco, DG External Relation relation, DG Trade etc. to alleviate poverty and promote private sector development. The database created by the RCPs provided linkage to the several other EC grant programmes, European national research programmes, and to European donor institutions.

### PARTICIPANTS AND RESEARCH TEAM

#### Participants

Number of participants: 8

Number of countries involved: 7

	Type	Country	Role	Previous participations in FP
EUROPE SADC-STATES BRIDGE, ESSB SWABURY KG	OTH	DE	Coordinator	1
DEUTSCHES ZENTRUM FÜR LUFT- UND RAUMFAHRT	REC	DE	Participant	1
FOBANG FOUNDATION	OTH	CM	Participant	1
TROPICAL DISEASES RESEARCH CENTER	REC	ZM	Participant	1
BUREAU FOR EUROPEAN PROGRAMMES	OTH	AT	Participant	1
AFRICAN CENTRE FOR CLINICAL TRIALS	REC	KE	Participant	2
SENTERNOVEM / EG-LIAISON	OTH	NL	Participant	20
ARCHIMEDES FOUNDATION	OTH	EE	Participant	13

#### Team Composition

Team Size: members\*

GENDER				
Female		Male		Unknown
50%		50%		0%
SENIORITY				
Average		Junior		Senior
17%		33%		50%
PhD				
No			Yes	
67%			33%	
BACKGROUND				
Applied Sciences	Health Sciences	Humanities & Social Sciences	Natural Sciences	Unknown
0%	67%	17%	0%	17%

\*The data are based on the analysis of the provided project's Description of Work.

## DELIVERABLES AND PUBLICATIONS

### Project deliverables

DELIVERABLE NO.	DELIVERABLE NAME	DUE DATE OF DELIVERY (month)	ACTUAL SUBMISSION DATE: (month)
D1	Minutes of the Kick-off meeting and summary of results.	M2	N/A
D2	Handbook of the project	M2	N/A
D3	Summary of procedure on training RCPs	M3	N/A
D4	Summary of procedure of organisational set-up of the RCP	M3	N/A
D5	EU contract	M1	N/A
D6	Consortium Agreement	M2	N/A
D7	WPLs' quarterly progress report		N/A
D8	Compiled financial data (book keeping)	M13/ M25/ M36	N/A
D9	Minutes and lists of participants of each meeting	N/A	N/A
D10	Reports of milestone meetings	M2/ M13 /M25 /M36	N/A
D11	Annual progress report	M13/M24/M36	N/A
D12	Final report	M36	N/A
D13	Checklist / guidelines for the setting up of a Regional Contact Point	M10	N/A
D14	Set of quality control instruments	M10	N/A
D15	Presentations, teaching materials, exercises	M10	N/A
D16	Feedback questionnaires	M10	N/A
D17	e-learning tool	M3	N/A
D18	List of trained RCP staff	M12	N/A
D19	Evaluation sheets of RCP staff	M12	N/A
D20	Newsletter	M12	N/A
D21	Info material	M14	N/A
D22	9 Information Days (Report, Agenda, List of Participants)	M13-36	N/A
D23	3 PRD-seminars (Report, Agenda, List of Participants)	M13-36	N/A
D24	RCP database	M14	N/A
D25	Flyer		N/A
D26	Written training programme	M13	N/A
D27	List of YAS participants (in PRD Seminars and those attending Information Days)	M36	N/A
D28	PRD institutions' database	M24	N/A
D29	Network newsletter	M1-36	N/A
D30	Conference reports, minutes		N/A

### Related publications

There were no related publications for this project.

### MAIN SOURCES

Description of Work

Progress                      Reports                      2007,                      2008                      &                      2009

## **ENVIRONMENTAL POLICY INTEGRATION AND MULTI-LEVEL GOVERNANCE - "EPIGOV"**

**Framework Programme: FP6 related to SaS**  
**Dimension: Governance and scientific advice**  
**Tool: Coordination Actions**  
**Project Call For Proposal: FP6-2004-CITIZENS-5**  
**Status: Closed**  
**Total cost: € 860 538**  
**Total EU funding: € 844 364**  
**Website: [www.ecologic.eu/projekte/epigov](http://www.ecologic.eu/projekte/epigov) (the link does not work anymore)**  
**Period: 01/02/2006 - 31/01/2009**  
**Subjects: Legislation and Regulations - Policies - Social Aspects**  
**Project ID and Acronym: ID: 28661,EPIGOV**

### **BACKGROUND AND CONTEXT OF THE PROJECT AND STRATEGIC NEEDS**

Environmental Policy Integration (EPI) is widely recognised as key for sustainable development. Efforts to achieve and improve EPI are currently being made at local/regional, national, European and global levels of governance and within the private sector.

There is a large and growing community of researchers working on EPI in the EU. The strong interest in EPI reflects at least three factors:

- First, EPI is recognised as crucial in the drive for promoting sustainable development. Interest in EPI is therefore linked to a considerable extent to the rise of sustainable development as a political ambition at all levels of governance.
- Second, EPI is widely associated with new modes of governance, which may help to address the limited effectiveness of conventional environmental and other policies.
- Third, EPI is a tool for securing coherence between policies. Ways of promoting EPI will be of direct relevance to those seeking better administrative coherence and coordination.

For all three reasons, EPI is therefore a major and fruitful area for governance research.

### **SPECIFIC PROJECT OBJECTIVES**

The EPIGOV project aimed to coordinate and synthesise research on EPI and multi-level governance and to generate new impulses for research. The overarching objective of the EPIGOV project was to create a process that can document and inspire progress of research. EPIGOV offered opportunities for researchers to come together at regular intervals, share research results, develop hypotheses and research methods, and discuss new initiatives for cooperative research.

To achieve its overarching objective, EPIGOV pursued the following operational goals:

- Documentation of the progress of research on EPI and governance;
- Coordination of ongoing research on EPI and governance;
- Discussion and assessment of research to identify research needs on EPI and governance;
- Dissemination of results;
- Regular review of progress.

#### **Programme objectives**

The objectives of the EPIGOV project were in line with the overall SaS programme objective of fostering a more dynamic interaction between scientists, policy-makers and society at large. More specifically they were consistent with the objectives of the SaS Governance and Scientific Advice dimension regarding the creation of an environment favourable to an effective multi-level governance, more soundly based on science and focused on society's needs.

#### **European Research Area (ERA)**

The EPIGOV objectives are consistent with the ERA objectives of promoting more effective national research systems and of achieving optimal transnational co-operation and competition, through the project's coordination objective, its documentation on research progress on EPI and governance, and its objective to identify new research needs. The project objectives indeed intend to contribute to defining and implementing common research agendas on grand-challenges, as well as raising quality of research through European-wide competition and coordination.

## SaS Action Plan

The project objectives mainly focus on fostering research in the field of EPI and governance. As such, they do not reflect *per se* the SaS action plan concerning the promotion of scientific education and culture in Europe, nor on the development of a science policy closer to citizens. Nevertheless, by further investigating the relations between EPI and multi-level governance, the project contributed to bringing responsible science at the heart of policy making.

## PROJECT OUTPUTS AND RESULTS

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The EPIGOV literature reviews and state-of-the-art-reports highlighted that there was a lack of scientific studies explicitly relating EPI to governance. Nevertheless, the existing literature and EPIGOV research papers provided significant information which was relevant for analysing EPI from a governance perspective.

EPIGOV results concerning modes of governance and multi-level governance included the following:

- Strong sectionalisation and departmentalisation of policy-making appeared to be the most important obstacle to EPI
- Most instruments which were used to support EPI appeared to be closer to new than to old governance
- The impact of Europeanisation of research at Member State level of EU EPI measures ranged from positive effects to problem transfer
- While EPI measures appeared to have had some effect on political discourse and strategies, decision-making procedures and routines in core sectors were rarely affected

At a more fundamental level, the EPIGOV project illustrated the continuing need to clarify the concept of EPI. EPIGOV also identified further research needs and questions in areas relating to the integration of climate change into other policy areas and with respect to the concept of EPI.

EPIGOV achieved its main overarching objectives as follows:

- **Documentation of the progress of research on EPI and multi-level governance:** The project documented research related to EPI and multi-level governance in the six EPIGOV literature reviews and state of play reports dealing with: EPI and modes of governance, EPI at EU-level, EPI at national level, EPI at regional and local level, EPI at international/global level and EPI and multi-level governance.
- **Coordination of ongoing research on EPI and multi-level governance:** Through the EPIGOV conferences and preparation meetings, project participants were offered opportunities to coordinate their research activities. Work on the two EPIGOV edited volumes and the special issue as well as several other publications constituted one of the results of coordination.
- **Discussion and assessment of research to identify research needs on EPI and multi-level governance:** The EPIGOV conferences, preparation meetings and the final meeting as well as the literature reviews, state of play reports and research papers inspired and enabled discussion of research needs and questions.
- **Dissemination of results:** A number of means were used to disseminate the results of the project. These related to the dissemination of a policy paper, the use of a website, the publication of two edited volumes and a special issue which contained the most suitable EPIGOV contributions. In addition, selected EPIGOV results were presented at conferences and published in various publications.
- **Regular review of progress:** The progress of the project was regularly reviewed at the annual coordination meetings of the Coordinator and the three Principal Partners. Less systematic review was also undertaken during the preparation meetings and EPIGOV conferences.

According to the Project Final Report, the project achieved its main overarching objectives. However, with regard to the last objective, the review of progress was not regular during all phases of the project.

## Main achievements according to SaS Dimensions

In line with the Governance and Scientific Advice dimension, the project provided sound research on the Environmental Policy Integration at multi-level governance and helped up taking scientific advice in policy making.

## DISSEMINATION AND ENGAGEMENT ACTIVITIES AIMED AT TRANSFERRING THE PROJECT RESULTS TO WIDER COMMUNITIES

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Dissemination of EPIGOV results was made through the following activities:

- Three thematic conferences were held over the duration of the project. The conferences brought together all project partners as well as external academics, policy-makers, and other stakeholders. Discussions focussed on the research papers presented at the conferences as well as future research needs and initiatives. Each conference addressed two main themes:

- Brussels conference (15-16 February 2007, organiser: IEEP)
  - EPI and modes of governance
  - EPI at EU level
- Milan conference (22-23 November 2007, organiser: FEEM)
  - EPI at local / regional levels
  - EPI at national level
- Stockholm conference (12-13 June 2008, organiser: SEI)
  - EPI at global level
  - EPI and multi-level governance
- A final policy conference presenting the overall EPIGOV results to interested parties was held in Brussels on 23 January 2009. The conference was organised by Ecologic and hosted by the Sustainable Development Observatory (SDO) of the European Economic and Social Council (EESC).
- Ecologic prepared a policy paper which summarised EPIGOV findings with a view to providing support to policy-making. The paper was presented at the EPIGOV final policy conference on 23 January 2009 and was made available on the EPIGOV project website.
- The Coordinator and the Principal project partners published two EPIGOV edited volumes and one journal special issue.
- A brochure with the project description was published.
- The EPIGOV project website was launched in July 2006 and is since then updated regularly. The website contains information about the project itself, about the partners, about the advisory group and the conferences as well as publications. Furthermore an internal section facilitates the communication in between the project partners and the preparation of the internal meetings.

On the basis of the Project's Final Report, it can be assessed that most of the planned dissemination activities were carried out. In fact, there is no evidence that at least two or three journal publications were published. However, one edited volume more than planned was completed.

## PROJECT IMPACTS

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EPIGOV was expected to broaden the scope of EPI research in several ways:

- **Contributions to standards:** a substantial contribution was made to the articulation of EPI-based best practices;
- **Contribution to policy developments:** a wide range of EPI related policy issues were dealt with during the project. In addition, the project focussed at global, EU, national and regional/local levels of governance. Its findings were relevant for policy developments at all levels.

Beyond expectations, the actual impacts can be classified in the following sections:

- **Scientific impact:** The growing scientific debate about the use of EPI at all levels of governance benefited from coordination of research in the framework of EPIGOV. EPIGOV synthesised existing EPI related results, enabling the identification of research needs and the development of research questions and hypotheses. EPIGOV also helped to coordinate and link researchers on EPI via dissemination activities and EPIGOV conferences. EPIGOV created opportunities for new research cooperation and projects.
- **Policy impact:** EPI is highly policy relevant. Relevant policy-makers from all tiers of government, including specialised agencies, and other stakeholders benefited from the activities in the framework of EPIGOV via EPIGOV conferences, research results, the website, the policy paper and state-of-the-art reports which provided comprehensive overviews of relevant issues and instruments at all levels of governance.

## EU ADDED VALUE OF THE PROJECT

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The EU added value in coordinating research on the use of EPI at global, EU, national, and regional/local levels lies in three principal reasons:

- **Size, efficiency, and quality of the research effort:** the EPIGOV partner institutions built their analysis on extensive past and ongoing European research focussing on EPI and related issues. A project at national level would have had to undertake significantly greater efforts to obtain such knowledge. Finally, the project benefited from the partners' country specific expertise.
- **Dialogue with policy-makers and stakeholders:** it was significantly easier for a European consortium to establish and maintain contacts with policy-makers and stakeholders in several countries and at all levels of governance. In addition, the important role of the EU in environmental policy making in general, and in particular with respect to promoting EPI, justifies a European research project.



- **Dissemination:** it was significantly easier for a European consortium to disseminate project results to actors in several countries and at all levels of governance.

## PARTICIPANTS AND RESEARCH TEAM

### Participants

Number of participants: 19

Number of countries involved: 12

	Type	Country	Role	Previous participations to FP
ECOLOGIC	REC	DE	Coordinator	12
VRIJE UNIVERSITEIT BRUSSEL	HES	BE	Participant	1
UNIVERSITAET OSNABRUECK	HES	DE	Participant	1
VRIJE UNIVERSITEIT AMSTERDAM	HES	NL	Participant	1
FRIDTJOF NANSEN INSTITUTE	REC	NO	Participant	1
ESTONIAN INSTITUTE FOR SUSTAINABLE DEVELOPMENT	REC	EE	Participant	1
PANEPISTIMIO AIGAIUO	HES	GR	Participant	1
INSTITUT UNIVERSITARI D'ESTUDIS EUROPEUS	HES	ES	Participant	2
STICHTING EUROPEES INSTITUUT VOOR BESTUURDKUNDE	HES	NL	Participant	1
VYSOKA SKOLA EKONOMICKA PRAHA	HES	CZ	Participant	2
CENTRAL EUROPEAN UNIVERSITY BUDAPEST FOUNDATION	HES	HU	Participant	18
FONDAZIONE ENI ENRICO MATTEI	REC	IT	Participant	32
INSTITUTE FOR EUROPEAN ENVIRONMENTAL POLICY	REC	GB	Participant	12
WUPPERTAL INSTITUT FUER KLIMA, UMWELT, ENERGIE GMBH.	REC	DE	Participant	4
BUDAPEST UNIVERSITY OF TECHNOLOGY AND ECONOMICS	HES	HU	Participant	54
UNIVERSITETET I OSLO	HES	NO	Participant	62
UNIVERSITY OF EAST ANGLIA	HES	GB	Participant	46
STOCKHOLM ENVIRONMENT INSTITUTE	REC	SE	Participant	14
FREIE UNIVERSITAET BERLIN	HES	DE	Participant	35

### Team Composition

Team Size: members\*

GENDER				
Female	Male	Unknown		
35	12	0		
SENIORITY				
Average	Junior	Senior		
1	4	42		
PhD				
No	Yes			
20	27			
BACKGROUND				
Applied Sciences	Health Sciences	Humanities & Social Sciences	Natural Sciences	Unknown
0	0	18	29	0

\*The data are based on the analysis of the provided project's Description of Work.



### DELIVERABLES AND PUBLICATIONS

DELIVERABLE NO.	DELIVERABLE NAME	DUE DATE OF DELIVERY (month)	ACTUAL SUBMISSION DATE: (month)
D1	Annual progress reports to the Commission (three) and final report	12, 24, 36	39
D2	Website/Listserv	3	5
D3	Brochure	7	11
D4	Policy paper	31	36
D5	Publications (2-3)	31	36
D6	Inception Report and final dissemination plan	4	-
D7	Kick-off meeting	3	2
D8	Final preparation and coordination meeting	9	-
D9	Seven papers presenting research results	12	13
D10	Two state-of-the-art reports	12	12
D11	Two literature reviews	12	12
D12	Conference proceedings	15	26

Publications no.	PUBLICATION	LINK (when available)
1	Ingmar von Homeyer, Alessandra Gorla, Måns Nilsson, Marc Pallemmaerts (eds.), "The promise and practice of environmental policy integration - a multi-level governance perspective", Edward Elgar Publishing;	<a href="http://ecologic.eu/3391">http://ecologic.eu/3391</a>
2.	Alessandra Gorla, Alessandra Sgobbi, Ingmar von Homeyer (eds.), "Governance for the environment. Integrating the environmental dimension into national, regional and local policies: current practices and future directions", Edward Elgar Publishing;	-
3.	Måns Nilsson and Marc Pallemmaerts (eds.), "International regimes and environmental policy integration", International Environmental Agreements (Special issue).	-

### MAIN SOURCES

Documentary review:  
Description of Work  
Final report  
Final dissemination report  
Interviews:  
Dr. Ingmar von Homeyer, Ecologic Institute

## **DISSEMINATION OF KNOWLEDGE CONCERNING CURRENT R&D LOCALISATION MOTIVES OF LARGE REGIONALLY IMPORTANT PRIVATE SECTOR ORGANISATIONS - "LOCOMOTIVE"**

**Framework Programme: FP6 related to SaS**

**Action line/Part: -**

**Activity: -**

**Area: -**

**Dimension: Governance and Scientific Advice**

**Tool: Coordination Actions**

**Project Call For Proposal: FP6-2004-KNOW-REG-2**

**Status: Closed**

**Total cost: € 486 271.00**

**Total EU funding: € 486 271.00**

**Website: -**

**Period: 01/01/2006 - 30/06/2007**

**Subjects: Innovation and Technology Transfer - Regional Development**

**Project ID and Acronym: 30089, LOCOMOTIVE**

### **BACKGROUND AND CONTEXT OF THE PROJECT AND STRATEGIC NEEDS**

In the context of increased economic competition between regions, attracting big R&D investors by promoting adequate R&D policies comes as a key driver for growth. R&D investments and localisation by large companies have become more flexible, making it difficult for regional policy-makers to fully understand how R&D strategies may shape their regions, nor whether they need to act to improve their region's attractiveness.

### **SPECIFIC PROJECT OBJECTIVES**

#### **Project objectives**

The LOCOMOTIVE project aimed at providing regional policy-makers with a better understanding of the current R&D investment policies of large private sector companies in their regions compared with trends in other regions in Europe. The core activities of the project were:

- To set up a methodological framework to achieve directly comparable results;
- To conduct structured interviews with key R&D managers, using the network of the project partners;
- To organise regional roundtable discussions on private sector R&D investments with actors from private and public sectors;
- To provide a view of current industrial thinking and then to use these results to encourage a more pro-active dialogue about how regional policies might make R&D investment more attractive.

#### **SaS dimension**

The LOCOMOTIVE project aimed at helping regional policy-makers understand the current practices of private actors in terms of R&D investments by resorting to research on the territorial attractiveness of knowledge, so as to enable them to adapt their policies. In that respect, the project's objectives were in line with the objectives of the Governance and Scientific Advice dimension, which notably aimed at putting research at the heart of society and ultimately policy-making.

#### **Innovation Union**

By aiming to provide policy-makers with insights into the R&D investment strategies of private companies, so as to better design their policies, LOCOMOTIVE's objectives were consistent with the Innovation Union objective of capitalising on Europe's creative potential and potentially of enhancing access to finance for innovative companies.

#### **European Research Area (ERA)**

By aiming to increase the knowledge of regional policy-makers, the LOCOMOTIVE's objectives were in line with the ERA objective of promoting optimal circulation, access and transfer of scientific knowledge in society.

#### **SaS Action Plan**

The LOCOMOTIVE project aimed at resorting to research to deepen the understanding of regional policy-makers in relation to private R&D strategies. In that respect, the objectives of the project were in line with the SaS Action plan's objective of putting responsible science at the heart of policy-making.

More specifically, it could be assessed that the project was consistent with Action 36 of the SaS Action Plan, as it developed results to encourage a more pro-active dialogue on how regional policies might make R&D investments more attractive.

## **PROJECT RESULTS AND OUTCOMES**

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### **Main achievements according to project objectives**

The project achieved the following results:

- A methodology was developed to define the research and data collection processes of the project. It consisted in a questionnaire of nine open questions designed to cover the different identified themes to be covered by the analysis.
- 42 interviews were conducted, i.e. more than twice the number initially planned. The results of these interviews were synthesised in a report.
- Based on the results of the interviews, roundtable discussions were held in the project's participating regions and summarised in a report. The context of each region was also analysed so as to complement the results of the discussions.
- A paper on "Approaches to the strategic repertoire of MNEs and the consequences for their global R&D development in relation to regional involvement" was drafted to analyse global considerations on R&D decisions in large companies. The analysis was supplemented by a study trip to Toronto (Ontario, Canada), in order to be able to enrich the project's findings through a comparison with a region outside of the EU and that distinguished itself as an innovation hotspot. Finally the project participants developed recommendations on the regional dimension of R&D location.

Through review of the data available in the reports, it can be concluded that all planned objectives were achieved. According to the project Final Activity Report, a few minor problems occurred.

Firstly, the delay of some deliverables was caused by the underperformance of one of the project partners. Secondly, the quality of the deliverables was not always satisfying and had to be submitted to several revision cycles, also creating delays.

Thirdly, difficulties in getting all actors reunited caused delays in the Toronto visit.

### **Main achievements according to SaS Dimensions**

The LOCOMOTIVE project managed to conduct an analysis of private R&D location strategies and draft recommendations to help regional policy-makers adapt their policies to attract investments and foster R&D locally. In that respect, the project's results fulfilled the objectives set out in the SaS Governance and Scientific Advice dimension consisting in strengthening and improving European science systems, fostering the uptake of scientific advice in policymaking and improving the understanding of the place of science and technology in society, putting research at the heart of society, notably to make Europe most competitive.

## **DISSEMINATION AND ENGAGEMENT ACTIVITIES AIMED AT TRANSFERRING THE PROJECT RESULTS TO WIDER COMMUNITIES**

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The project developed the following dissemination activities:

- A press release was issued in February 2006
- A project website was created: locomotive-project.org (not in service anymore)
- A public conference on "Managing the Links – Global trends and regional policies in R&D location" was organised in Hamburg (Germany) on 5 and 6 June 2007 to present and discuss all the project's results and gathered 60 experts from industry, universities and administrations discussed on strategies to influence the R&D location strategies of large companies.

However, there is no evidence that workshops to reunite actors involved in regional development, as planned in the DoW, were held.

## **PROJECT IMPACTS**

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### **Potential impact**

The project had the following expected impact:

- To promote awareness and understanding among regional decision-making concerning R&D location decisions

- To fuel other projects on related topics, such as *BaltMet Inno*, *Baltic Sea Knowledge Region*, *European Learning Network – Lnet (2004 – 2007)*; *Metropolitan Hubs*, *Dynamic Regions*, *Innovation Environments*, and *Governance in the Knowledge-Based Society*; “Pole de Compétitivité”.
- To contribute to policy developments both at the national and EU level.

Potential impacts can be further assessed through the following indicators:

- **Betweenness centrality:** out of the eight project participants, three were among the top 1% most central institutions participating in FP6, and five were among the top 10%.
- **Scientific attractiveness:** Only one institution out of the eight participants were part of the Leiden university ranking: the University of Oxford, which ranked 29<sup>th</sup>.
- **Business attractiveness:** No project participants were ranked among the biggest R&D investors in SaS. This can notably be explained by the fact that participants were mainly universities and research institutes.

### Actual impact

Impacts can be clustered into four types:

- **Scientific impact:** No publications related to the project could be found. This can notably be explained by the fact that LOCOMOTIVE was a coordination action.
- **Social media impacts:** no reference to the LOCOMOTIVE project could be found in social media, suggesting a non-existent impact of the project through this channel.
- **Institutional and organisational impact:** no institutional nor organizational impact could be identified.
- **Policy impact:** the final output of the project was the outline of recommendations directed at regional policy-makers to shape their regional attractiveness policies. The project notably ended with a conference during which 60 experts, including policy-makers, discusses these findings. Nevertheless, no explicit mention of the project could be found in later regional attractiveness policy developments. In particular, no mention of Locomotive could be found in the documentation related to the various projects on which it was expected to have an impact, as listed in the potential impact. Nevertheless, many of the participating organisations were involved in regional development issues on behalf of public authorities or regional governments, suggesting that knowledge acquired through the project could have been directly transmitted to policy-makers.

### PATH-BREAKING ADVANCEMENTS

None.

### BEST PRACTICES

None.

### EU ADDED VALUE OF THE PROJECT

As the project aimed at analysing private companies’ R&D location strategies to understand the regional drivers at play, comparing a wide range of regions and settings was necessary for LOCOMOTIVE to achieve meaningful results, all the more so as large private companies operate regardless of national borders. In that respect, conducting the project at the European level enabled to widen the scope of the analysis by having access to a wider network through the different participants.

### PARTICIPANTS AND RESEARCH TEAM

#### Participants

Number of participants: 8

Number of countries involved: 8

	Type	Country	Role	Previous participations to FP
TUTECH INNOVATION GMBH	OTH	DE	Coordinator	3
ERASMUS UNIVERSITY ROTTERDAM / ROTTERDAM SCHOOL OF MANAGEMENT	HES	NL	Participant	0
RESEAU UNIVERSITAIRE TOULOUSE MIDI-PYRENEES	HES	FR	Participant	0
TECHNOLOGICKE CENTRUM AKADEMIE VED CESKE REPUBLIKY	OTH	CZ	Participant	0
CEU CONSULTING - CENTRAL EUROPEAN	OTH	HU	Participant	0

	Type	Country	Role	Previous participations to FP
UNIVERSITY SHARE COMPANY				
INTERLACE-INVENT APS	OTH	DK	Participant	1
CULMINATUM LTD OY HELSINKI REGION CENTRE OF EXPERTISE	OTH	FI	Participant	1
THE CHANCELLOR, MASTERS AND SCHOLARS OF THE UNIVERSITY OF OXFORD	HES	GB	Participant	138

### Team Composition

Team Size: 16 members\*

GENDER				
Female		Male		Unknown
38%		62%		0%
SENIORITY				
Average		Junior		Senior
0%		0%		100%
PhD				
No			Yes	
56%			44%	
BACKGROUND				
Applied Sciences	Health Sciences	Humanities & Social Sciences	Natural Sciences	Unknown
38%	0%	56%	6%	0%

\*The data are based on the analysis of the provided project's Description of Work.

### DELIVERABLES AND PUBLICATIONS

It presents the documents produced by the project (intermediate and final report, dissemination report) and any publication produced as direct consequence of the project.

#### Project deliverables

DELIVERABLE NO.	DELIVERABLE NAME	DUE DATE OF DELIVERY (month)	ACTUAL SUBMISSION DATE: (month)
D1	Workshop and interview schedule	2	2
D2	Project PR material	3	3
D3	Questionnaire for regional interviews	3	4
D4	Interim report	9	9
D5	Interim summaries of regional roundtable discussions	9	12
D6	Interim report on interviews with R&D managers	9	9
D7	Paper on approaches to the strategic repertoire of MNEs and the consequences for their global R&D development in relation to regional involvement	12	15
D8	Visit report Toronto	24	21
D9	Summaries of roundtable discussions	15	19
D10	Report on interviews with R&D managers	15	21
D11	Comparative report on R&D decisions of large private sector companies in selected regions	21	21
D12	Policy recommendations	21	21
D13	Proceedings of final LOCOMOTIVE conference	21	21
D14	Final Project report	21	21

#### Related publications

No publications related to the project could be found. This can notably be explained by the fact that the project was a coordination action.

**MAIN SOURCES**

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Description of Work  
Periodic and Final Activity Report  
eCordis Database

## **ARENAS FOR RISK GOVERNANCE - "ARGONA"**

**Framework Programme: FP6 related to SaS**  
**Dimension: GOVERNANCE AND SCIENTIFIC ADVICE**  
**Tool: Specific Targeted Research Projects**  
**Project Call For Proposal: EURATOM-2005-6-FIXED DEADLINE**  
**Status: Closed**  
**Total cost: € 1 857 410.00**  
**Total EU funding: € 1 200 000.00**  
**Website: <http://www.argonaproject.eu/>**  
**Period: 01/11/2006 – 31/10/2009**  
**Subjects: Nuclear Fusion – Radioactive Waste**  
**Project ID and Acronym: 36413 ARGONA**

### **BACKGROUND AND CONTEXT OF THE PROJECT AND STRATEGIC NEEDS**

Participation and transparency are key elements of effective risk governance. During the last decade the community of nuclear waste management acknowledged the need for more transparency, stakeholder participation and community involvement in the decision making processes of the programmes.

The knowledge base increased dramatically with respect to risk communication, various models of citizen participation, conditions for community involvement and transparency. The programmes also became more communicative through the requirements of Environmental Impact Assessment (EIA) at project level and Strategic Environmental Assessment (SEA) at the planning and programme implementation levels. However, the progress in European programmes can continue to be increased.

Despite the fact that research in Western Europe has so far been devoted to transparency and participation, there is continued room for progress, with newer EU Member States developing their own approaches while also wishing to gain from methodologies developed within the EU research programme.

### **SPECIFIC PROJECT OBJECTIVES**

#### **Project objectives**

**The ARGONA project aimed to investigate how approaches of transparency and deliberation relate to each other and also how they relate to the political system in which decisions**, for example on the final disposal of nuclear waste, are ultimately taken. The project then aimed to examine the role played by mediators, who facilitate public engagement with nuclear waste management issues, and the “conduct of the conduct” of public consultations.

Furthermore, **the project aimed to investigate how good risk communication can be organised taking cultural aspects and different arenas into account**. In a central part of the project major efforts are made to test and apply approaches to transparency and participation by making explicit what it would mean to use the RISCUM model and other approaches within different cultural and organisational settings.

Finally, **the ARGONA partners develop guidelines for the application of novel approaches that will enhance real progress in nuclear waste management programmes**.

To this end, the project has following objectives:

- To map policy making structures within EU in general and in the participating countries in particular;
- To clarify the roles of the deliberative and the transparency approaches in policy making structures;
- To further implement the RISCUM model in Europe;
- To test a number of approaches to stakeholder participation within the Czech system;
- To disseminate good risk communication techniques and strategies across national borders, and to specify circumstances that require more specific and unique national or group considerations;
- To improve the understanding of how information systems, such as ERMON, can be used for effective risk communication;
- To develop a framework for how behavioural sciences findings and more technical approaches can be integrated in risk communication;
- To improve the knowledge of how different approaches to stakeholder participation can enhance public engagement and involvement;

- To increase the awareness among decision makers and other stakeholders of the roles of “mediators” of public participation methods, so that their advices can be effectively reviewed before participation methods are implemented;
- To produce guidelines for strengthening existing policy making structures by the application of novel approaches to participation and transparency in nuclear waste management;
- To disseminate the ARGONA approaches and results to other policy making areas such as biotechnology, oil industry and other energy related areas.

### **SaS dimension objectives**

The ARGONA project intended to analyse the role of a large set of ideas for deliberation and transparency in the light of the political and legislative structure. In that respect, the project’s objective was relevant for the SaS Governance and science advice dimension whose purpose was in particular to place the research activities at the heart of the society and thus in the policy-making process.

### **Innovation Union objectives**

“*Strengthening the knowledge base and reducing fragmentation*” is the first intermediate objective of the Innovation Union. The ARGONA project consisted in analysing the link of participation and transparency with the political and legal systems and was therefore consistent with the Innovation Union.

### **European Research Area (ERA) objectives**

The ARGONA project questioned the role of deliberation and transparency in the political and legislative structure and contributed therefore to an “*optimal circulation, access to and transfer of scientific knowledge including via digital ERA*” (fifth ERA priority).

### **SaS Action Plan**

The ARGONA project was designed to improve the effectiveness of risk governance in the field of nuclear waste management and was therefore directly linked to Action 35. It also aimed to develop guidelines which will integrate the civil society needs to advice policy decisions. Thus the project contributed to the action 36. The ARGONA project also focussed on the development of a framework to integrate behavioural sciences findings and more technical approaches in risk communication. This global reflection on risk communication can indirectly contribute to the establishment of European Common Scientific Reference Systems.

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## **PROJECT RESULTS AND OUTCOMES**

### **Main achievements according to Project Objectives**

In line with its objective to create new insights into how democratic, safe and robust patterns of nuclear waste governance can be secured in the future, the project delivered the following results and outputs:

- **Mapping of the practices regarding** participation and transparency in Belgium, Czech Republic, Finland, Slovakia, Sweden and the United Kingdom;
- **Testing and application of novel dialogue and participation approaches in Czech Republic** (science shops, consensus conferences and other participatory methods involving different stakeholders as well as the RISCOM model application);
- **Study on the policy making structures and the legal systems** in the Member States covered by the project;
- **Study on the impact of different cultural contexts on transparency and deliberation**, especially in Swede, Slovakia and the United Kingdom;
- **Study on the risk communication** based on the conclusions of focus groups discussions;
- **Study on the role and impacts of mediators** in the field of nuclear waste management;
- **Study on the experience with the use of public participation** to draft a synthesis of the different participation tools used during the project;
- **Key conclusions**, in the form practical guidance, were also given with regard to the future of processes of participation and transparency in radioactive waste management.

According to the final report, all the specific objectives were achieved during the project.

### **Main achievements according to SaS Dimensions**

The implementation of the ARGONA project led to studies, studies of theory and key conclusions clarifying processes of participation and transparency in radioactive waste management. Thus, the project results fully met the objective of the SaS Government and Scientific Advice dimension by improve the understanding of the place of science and



technology in society. The project also provide guidelines for the participation of citizens which will contribute to improve the European science systems.

#### **DISSEMINATION AND ENGAGEMENT ACTIVITIES AIMED AT TRANSFERRING THE PROJECT RESULTS TO WIDER COMMUNITIES**

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The knowledge gained in the course of the ARGONA project was made public in a number of ways:

- **Organisation of conferences** like the ARGONA end users conference that took place on 17-18 March 2009 in Uppsala (Sweden). The conference was initiated and arranged to provide ARGONA project with feedback from end users as well as to provide stakeholders and end users with research results.
- **Launch and animation of a project website** in which the project structure, approaches taken and results produced were presented.
- **Publication of articles in international journals** were also planned. However, at the moment of the drafting of this case study, no information regarding any publication can be found.

At the moment of the publication of the final report, some dissemination activities were planned but not yet achieved such as publication of some articles in international journals and participation in some international conferences to disseminate the results of the project. It is expected, however, that the dissemination of project results continued after the publication of the final report.

#### **PROJECT IMPACTS**

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##### **Potential impacts**

The ARGONA project was expected to demonstrate how participation and how transparency link to the political systems and how new approaches can be implemented in radioactive waste management programmes. Project partners outlined potential policy impacts as follows:

- **Contribution to standards:** While it was not expected that the project would have a direct impact on safety and radiation standards, it was expected that the results of the projects may be instrumental for two aspects (risk communication and transparency) related to such standards. It was expected that this would be of direct significance for the implementation of EU Directives and national law making on EIA and SEA as well as international conventions on public influence.
- **Contribution to policy developments:** Since the project was embedded in the policy development at local, national and European levels, it was expected that ARGONA's design would contribute to transparency in strengthening existing policy making structures.

Furthermore, the project's potential impact can be further assessed through the following indicators:

- **Betweenness centrality:** Three participating organisations of the ARGONA project were amongst the most central participants in FP6.
- **Scientific attractiveness:** Three participants were ranked in the Leiden University ranking. Their ranking were the following: 452th place for the University of Tampere, 287<sup>th</sup> place for the University of Gothenburg and 172th place for Stockholm University.
- **Business attractiveness:** None project participant was not ranked as one of the biggest R&D investors amongst SaS participants.

##### **Actual impacts**

Beyond the expectations, the actual impacts can be classified as follows:

- **Scientific impact:** the ARGONA project produced guidelines on approaches to siting a deep repository and guidelines for participation and transparency in nuclear waste management programmes that suggests actions and guidance. In addition, four publications were published. All these scientific productions suggest a positive impact.
- **Institutional and organisational impact:** The production of guidelines related in particular to participation and transparency in nuclear waste management could have an impact on institutions and organisation working in related areas. Nevertheless, nothing is specified in the deliverables.
- **Policy impact:** Similarly as the analysis of the institutional and organisational impact, the publication of guidelines is supposed to have an impact on policy developments. However, no data can be found whether guidelines have been used and their impact on policy developments.
- **Social media impact:** Between May 2008 and October 2011, ARGONA recorded three posts and suggest therefore a weak social media impact.

## PATH-BREAKING ADVANCEMENTS

The project took into account the specificities of the Member States involved in the different studies. It was especially the case regarding civil society participation and transparency and the impact of different cultural contexts on risk communication. The project was also designed to implement public consultations regarding nuclear waste management but also to draft overall conclusions about the involvement of civil society in science and policy decisions. This is a quiet innovative approach and increase the potential impact of the project.

## BEST PRACTICES

No specific best practice could be identified.

## EU ADDED VALUE OF THE PROJECT

Project partners did not specify in the deliverables their analysis of the EU added value in the ARGONA project however it seems to be relevant. Firstly, the project represents significant EU cooperation, with fourteen participants from seven countries. Second, the project is embedded not only at local and regional levels but also at the European level. And finally, the project benefited from an important FP6 funding (64%) that suggest a significant leverage effect of the EU funding.

## PARTICIPANTS AND RESEARCH TEAM

### Participants

Number of participants: 14

Number of countries involved: 7

	Type	Country	Role	Previous participations to FP
SWEDISH NUCLEAR POWER INSPECTORATE	OTH	SE	Coordinator	4
WENERGY AB	OTH	SE	Participant	1
UNIVERSITY OF STAVANGER	HES	NO	Participant	1
DECONTA, A.S.	OTH	SK	Participant	1
KARITA RESEARCH AB	OTH	SE	Participant	2
UNIVERSITY OF TAMPERE	HES	FI	Participant	14
GOETEBORG UNIVERSITY	HES	SE	Participant	77
STOCKHOLMS UNIVERSITET	HES	SE	Participant	72
LANCASTER UNIVERSITY	HES	GB	Participant	29
SPRAVA ULOZIST RADIOAKTIVNICH ODPADU	OTH	CZ	Participant	6
USTAV JADERNEHO VYZKUMU REZ A.S.	REC	CZ	Participant	23
GALSON SCIENCES LTD	REC	GB	Participant	4
COMMISSION OF THE EUROPEAN COMMUNITIES - DIRECTORATE GENERAL JOINT RESEARCH CENTRE	REC	BE	Participant	163
STUDIECENTRUM VOOR KERNENERGIE - CENTRE D'ETUDES DE L'ENERGIE NUCLEAIRE	REC	BE	Participant	28

### Team Composition

Team Size: members\*

GENDER		
Female	Male	Unknown
43%	57%	0%
SENIORITY		
Average	Junior	Senior
0%	43%	57%
PhD		

Stock-taking and meta-analysis of Science in Society projects throughout FP6 and FP7  
Final Case Studies

No		Yes		
71%		29%		
BACKGROUND				
Applied Sciences	Health Sciences	Humanities & Social Sciences	Natural Sciences	Unknown
14,29%	0%	29%	29%	29%

\*The data are based on the analysis of the provided project's Description of Work.

### DELIVERABLES AND PUBLICATIONS

DELIVERABLE NO.	DELIVERABLE NAME	DUE DATE OF DELIVERY (month)	ACTUAL SUBMISSION DATE: (month)
D1	Questionnaire survey for Policy making structures	3	4
D2	Policy making structures in the EU and participating countries	12	12
D3	A critical evaluation of public participation processes as a part of EIA	12	12
D4	Mediators of issues and mediators of process: A theoretical framework	12	12
D5	Assumptions and considerations underlying current approaches in nuclear waste management	12	14
D7	Focused science shops	18	14
D8	Analysis of the results of the questionnaire about ideas concerning risk and uncertainty to be communicated and format	21	23
D9	Similarities and differences in risk communication strategies on nuclear waste management across countries	24	37
D10	Public consultation case studies: Oskarhamn and Osthrammar	24	24
D11	Consensus panel on SNF management alternatives	28	31
D12	Interaction panel on safety case	28	33
D13	Analysis of the different philosophical theories with respect to transparency and deliberation	30	36
D14	Application of the RISCO Model	32	36
D15	Novel procedures as applied to radioactive waste management and new LLW facilities	30	36
D16	The role of local referenda and compensation in the siting of a nuclear waste repository	30	36
D17	On the adequacy of the formats proposed to communicate risk and uncertainty	33	37
D18	Risk communication strategies – Conclusions and summaries of feedback comments from participating countries	33	37
D19	Risk communication – final report	36	-
D20	Mediators of issues and mediators of process: an evaluation of practices	36	36
D21	Guidelines on approaches to siting a deep repository	36	36
D22	Guidelines for participation and transparency in nuclear waste management programmes	36	39
D23	ARGONA final report	36	39
D24	Governance webportal jointly with CIP and OBRA	3-36	-
D25	Joint newsletters with CIP and OBRA	3-36	9-31

Publications no.	PUBLICATION	LINK (when available)
	P. Josefin, J. and C. Wetzel, Arenas for risk governance in nuclear waste management – The European Union ARGONA project	<a href="http://www.iaea.org/inis/collection/NCLCollectionStore/_Public/41/021/41021975.pdf">http://www.iaea.org/inis/collection/NCLCollectionStore/_Public/41/021/41021975.pdf</a>
2.	P. Richardson, D. Galson (2009), How to communicate safety? Some reflections	<a href="http://www.ip-pamina.eu/downloads/paminapaper.richardsongalson200">http://www.ip-pamina.eu/downloads/paminapaper.richardsongalson200</a>

<i>Publications no.</i>	<i>PUBLICATION</i>	<i>LINK (when available)</i>
	<i>from European project studies</i>	<i>9.pdf</i>
3.	<i>B-M. Drottz-Sjöberg (2007) Risk communication in arenas for risk governance, ARGONA</i>	<a href="http://www.dimat.unina2.it/marrone/dwnld/Proceedings/ESREL/2007/Pdf/CH072.pdf">http://www.dimat.unina2.it/marrone/dwnld/Proceedings/ESREL/2007/Pdf/CH072.pdf</a>
4.	<i>B-M Drottz-Sjöberg, Tools for risk communication</i>	<a href="http://link.springer.com/referenceworkentry/10.1007%2F978-94-007-1433-5_29#page-2">http://link.springer.com/referenceworkentry/10.1007%2F978-94-007-1433-5_29#page-2</a>

### **MAIN SOURCES**

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Main sources of information include:

eCORDA;

CORDIS database;

OPENAIRE database,

ARGONA CONSORTIUM (2007). Description of Work. Annex 1

ARGONA CONSORTIUM (2010). Final report

## **DEVELOPING THE EVIDENCE BASE FOR MENTAL HEALTH PROMOTION AND PREVENTION IN EUROPE: A DATABASE OF PROGRAMMES AND THE PRODUCTION OF GUIDELINES FOR POLICY AND PRACTICE - "DATAPREV"**

**Framework Programme:** FP6 related to SaS  
**Dimension:** Governance and Scientific Advice  
**Tool:** Coordination Actions  
**Project Call For Proposal:** FP6-2005-SSP-5-A  
**Status:** Closed  
**Total cost:** € 997 621  
**Total EU funding:** € 997 621  
**Website:**  
**Period:** 01/09/2007 - 28/02/2011  
**Subjects:**  
**Project ID and Acronym:** 44145 - DATAPREV

### **BACKGROUND AND CONTEXT OF THE PROJECT AND STRATEGIC NEEDS**

A high level of mental health would support the EU in becoming more knowledge-based, competitive and socially cohesive. Currently, mental disorders in the EU account for 20% of all European ill-health and premature death, at a cost of some 3%-4% of GDP.

The WHO Helsinki Action Plan for mental health called for an integrated set of databases to provide the evidence for health promotion and protection to be integrated into mental health policy in relevant environments and sectors.

Gathering and building on world-wide and European research and evidence, DataPrev was aimed to support policy making, research and practice in the field of mental health promotion and protection by translating available evidence into guidelines and training for informed decision making, understanding effective interventions, improving existing implementation, and providing the arguments and outcomes to invest in effective interventions across Europe.

### **SPECIFIC PROJECT OBJECTIVES**

#### **Project objectives**

The co-ordinated action sought to **increase the understanding and knowledge across Member States of mental health promotion and mental disorder prevention policy and practice**. To achieve this overarching goal, four main objectives were defined:

- **Objective 1:** Developing and disseminating a **standardised** online information system that systematically gathers, describes, reviews and appraises best practices across settings
  - Objective 1.1: Developing a methodology and protocol to identify, appraise and describe programmes that promote and protect mental health in specified settings that are described or evaluated in the scientific literature or are currently implemented in Europe.
  - Objective 1.2: Developing a methodology and protocol to classify identified programmes as best practice programmes.
  - Objective 1.3: Setting up a standardized Internet searchable and user friendly database to describe existing programmes for mental health promotion and mental disorder prevention which includes programme descriptions and mental health, social and economic outcomes.
- **Objective 2:** Identifying and inputting into the information system (database) programme descriptions and the impact of the interventions on positive emotional and social wellbeing, improved cognitive and emotional development, reduced mental ill health, decreased psychiatric symptoms and disorders, improved positive mental health, and improved social and economic outcomes.
  - Objective 2.1: Identifying evaluated programmes that promote and protect mental health in home, educational, workplace, community and residential settings through systematic literature searches of the world wide and European literature.
  - Objective 2.2: Identifying currently implemented programmes that promote and protect mental health in home, educational, workplace, community and residential settings, including those specifically tailored to gender, using a systematic methodology with the support of country and European-based networks.
  - Objective 2.3: Appraising and systematically describing the identified programmes and their outcomes, to identify effective and non-effective interventions.

- Objective 2.4: Using a systematic methodology to appraise the evidence and categorize identified programmes as best practice programmes or not, including the identification of those that have proven ineffective.
- Objective 2.5: Entering identified programmes into the database.
- **Objective 3:** Synthesising the evidence base quantitatively and qualitatively
  - Objective 3.1: Preparing systematic reviews, including economic outcomes where possible, of programmes that are implemented in homes and families for infants and toddlers, in schools for children and adolescents, in the work place for adults, and in homes, communities and residential settings for older people.
  - Objective 3.2: Providing the best evidence of programmes that can be implemented for prevention and promotion in mental health and their expected outcomes (effective programmes) and those that have proven to be ineffective and should be strengthened or stopped.
  - Objective 3.3: Providing scientific underpinning to policy making by identifying what are the outcomes in terms of mental health, emotional development, and social and economic indices, especially for different groups and gender.
- **Objective 4:** Translating the evidence based into guidelines and providing training to improve the quality of implemented interventions and informed decision making.
  - Objective 4.1: Developing recommendations for policy making, daily practice implementation and research needs and fund raising priority setting.
  - Objective 4.2: Providing guidelines and training to policy makers of how to use the available evidence and how to interpret available interventions.
  - Objective 4.3: Providing a framework for networking, bringing together research, practice and policy in using evidence based guidelines for choosing, implementing and evaluating practices in prevention and promotion in mental health.

### **SaS dimension objectives**

The DATAPREV project aimed at establishing a single EU player in the field of mental health promotion and protection through knowledge and understanding development. More specifically the project was supposed to develop recommendation for policy-making and daily practice. In that respect, the project's objective was relevant for the SaS Governance and science advice dimension whose purpose was in particular to put science at the heart of the policy-making process.

### **Innovation Union objectives**

"*Strengthening the knowledge base and reducing fragmentation*" is the first intermediate objective of the Innovation Union. In that respect, DataPrev's purpose was consistent with the Innovation Union goals as it was aimed to encourage a single EU playing field and to add value to EU and country policies in the field of policy research for mental health promotion and protection.

### **European Research Area (ERA) objectives**

Optimal transnational co-operation is an objective of ERA. In that respect, DataPrev's purpose is consistent with ERA goals as it was aimed to encourage a single EU playing field and to add value to EU and country policies in the field of policy research for mental health promotion and protection.

### **SaS Action Plan**

The project had the ambition to develop guidelines and recommendations in order to detect best practices and improve policy making in the field of mental health. For this reason, it was consistent with Action 36 of the SaS Action Plan, which encourages the establishment of guidelines on the use of expertise. Moreover, through the use of guidelines and training to improve future interventions, it can be considered that the project also contributed to Action 28 relating to ensuring coordination of prospective activity at European level.

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## **PROJECT RESULTS AND OUTCOMES**

### **Main achievements according to Project objectives**

Up to the date of the second progress report, most objectives were completed according to planning. Completion and launch of the project database was delayed and additional international literature was reviewed. Finally, recommendations and guidelines production was postponed to be further discussed and developed.

- Concerning **objective 1**, the protocol for identifying, describing and appraising promotion and prevention programmes was completed and reported. The completion and launch of the project database was delayed in order to revise the structure to work more closely with the review findings and to better compliment work

carried out on the EU Mental Health Compass database of good practices. A company was selected to develop both the project web site and database. Three meetings were held to finalise design and structure and a number of proposals were discussed before deciding on a final structure, design and timeline for completion. The tool for appraisal of the database interventions was revised and improved. The database was expected to be completed in Feb 2010.

- Concerning **objective 2**, literature review in project relevant areas was completed. Progress was made in identifying evidence-based programmes through systematic literature searches and selecting programmes for inclusion in the database. Identified studies were compiled and data extracted. Progress was also made towards draft publications describing methodology and outcomes of each work package. The one significant deviation was the undertaking of a review of reviews of the international literature, which provided the most comprehensive and robust analysis of the available evidence base. Using the results of this review to identify programmes to put on the database was a more complex task than undertaking a simple systematic review of primary studies.
- Concerning **objective 3**, a comprehensive search strategy was developed and appropriate economic inclusion criteria were defined. Using these, a systematic review of the economic literature was performed. The systematic search was undertaken on both health and non-health bibliographic databases. In addition, websites of key organisations worldwide as well as selected government and international agency (e.g. WHO and ILO) departments were selected. Analysis of the results was undertaken and preliminary results were to be reported in the steering meeting.
- Concerning **objective 4**:
  - A database of country focal points was developed and details entered. Progress towards the remaining milestones was made: Collection of data on grey literature, implemented programmes and existing guidelines and recommendations was initiated with inputs from several focal points. A list-serve of national, regional and local contacts for dissemination purposes was started. Minor changes from the description of work were necessary (such as the substitution of several country focal points, due to unforeseen circumstances: substitutes were identified when necessary). The deadline for final collection of data from the country focal points was also extended due to lack of response and the importance of this data.
  - Finally, guideline development and capacity building were postponed to be discussed and developed with the project's 5th steering meeting.

#### **Main achievements according to SaS Dimensions**

The DataPrev project's results were in line with the Governance and Scientific Advice SaS dimension as they contributed to building an open, effective and democratic European knowledge-based society, strengthening and improving European science systems and improving the understanding of scientific advice in policymaking. The development of guidelines based on the existing literature review ensured the exchange of best practices on the field of mental health and therefore stimulated science and research policies by giving scientific advice. The DataPrev project was moreover consistent with the trend identified in the later stage of FP6-SaS projects on new management strategies, through the definition of guidelines for the collection and interpretation of harmonised data at EU level on organisational change and its economic and social impacts.

#### **DISSEMINATION AND ENGAGEMENT ACTIVITIES AIMED AT TRANSFERRING THE PROJECT RESULTS TO WIDER COMMUNITIES**

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Dissemination was explicitly identified in the objectives of the DataPrev project and was managed through dedicated work packages. However, the actual implementation of dissemination activities was significantly curtailed for a number of reasons:

- Completion and launch of the project database was delayed in order to revise the structure to work more closely with the review findings and to better complement work carried out on the EU Mental Health Compass database of good practices. The project web site and database are still under development and were expected to be completed by February 2010.
- The European Conference Work package was put "on hold" indefinitely until decisions were made in consultation with the EC. At reporting date, no funds were transferred to the contractor in charge of organising the European Conference, and no activity was undertaken by the contractor. Proposed changes were expected to be included in an amendment request.
- Guideline development and capacity building were postponed to be discussed and developed with the project's 5th steering meeting.

It is worth noticing that a poster for dissemination of the project findings of relevance to the EC Thematic Conference on Youth held in Stockholm in September 2009 was prepared.



## PROJECT IMPACTS

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### Potential impacts

DataPrev was expected to contribute to improving the level of mental health in the Union, with the added value of improved social cohesiveness and competitiveness of Europe. The DataPrev project launching documents pointed to two main potential impacts:

- **Contribution to standards:** DataPrev was expected to contribute to the development of methodological standards, the standards of implemented programmes, and the standards of research for policy.
- **Contribution to policy developments:** DataPrev was aimed to improve the capacity of policy makers and programme implementers to be aware of best practice and to apply appropriate decision making skills in determining which programmes to implement. This was expected to support the implementation of effective interventions and have an indirect impact on the populations' mental health.

Moreover potential impacts can further be assessed through the three following dimensions:

- **Betweenness centrality:** Among the nine projects participants, four participants (HELSINKI UNIVERSITY, RADBOUD UNIVERSITY NIJMEGEN, UNIVERSITY OF SOUTHAMPTON and UNIVERSITY OF WARWICK) are amongst the top 1% of organisations participating to the specific programmes "Strengthening the ERA" in FP6. These organisations are able to diffuse and spread information and knowledge efficiently within the network, therefore we expect project results to be efficiently diffused and to have a significant impact on the European research community.
- **Scientific attractiveness:** The best ranked University participating in the project is the LONDON SCHOOL OF ECONOMICS AND POLITICAL SCIENCE (123<sup>rd</sup>). No highly ranked universities participated in the project, therefore the project can be expected to have a lower impact on the scientific community overall.
- **Business attractiveness:** No highly ranked R&D investors participated in the project.

### Actual impact

Actual impacts can be clustered into four types:

- **Scientific impact:** Three publications had an impact on the scientific community:
  - Investing in mental health and well-being: findings from the DataPrev project (54 citations)
  - Parenting for mental health: what does the evidence say we need to do? (41 citations)
  - Identifying Evidence-Based Work on Mental Health Promotion in Schools in Europe: An Interim Report on the DataPrev Project (12 citations)
- **Social Media impacts:** only ten posts referring to the project could be identified through a social media analysis. This absence of mention in the social media can partly be explained by the period when it was run.
- **Institutional and organisational impact:** DataPrev was expected to contribute to the development of methodological standards, the standards of implemented programmes, and the standards of research for policy.
- **Policy impact:** DataPrev was aimed to improve the capacity of policy makers and programme implementers to be aware of best practice and to apply appropriate decision making skills in determining which programmes to implement. This was expected to support the implementation of effective interventions and have an indirect impact on the populations' mental health.

## PATH-BREAKING ADVANCEMENTS

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None.

## BEST PRACTICES

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None.

## EU ADDED VALUE OF THE PROJECT

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The EC Green Paper for Mental Health (EC, 2005) and the WHO Declaration and Action Plan for Mental Health (WHO, 2005) outlined the need for the development of an integrated set of databases across Europe on mental health policies, strategies, implementation and delivery of evidence-based promotion and prevention. The support of the Community to the development of such a database was expected to provide a clear impact in the use of evidence-based practice, especially in supporting the development of policies and action plans at the country levels, and promoting the implementation of the forthcoming EU strategy for mental health.



DataPrev engaged key researchers in each of the areas identified as crucial by the EC, educational and workplace settings and practices for the population across all the age span, and through systematic reviews was expected to provide the evidence base and identify the impact of available programmes on cognitive and emotional development, prevention or reduction of mental ill health and associated improved social outcomes. In addition DataPrev was also expected to mobilize the critical mass at the European level by involving and bringing together all the key European Networks engaged in improving health and mental health for different age groups and in different settings.

Added value at the EU level is provided in the following additional ways:

- The involvement of nine key European networks and projects active in mental/health promotion and protection.
- The involvement of the four main European projects active in mental health promotion and protection, funded by DG-SANCO
- The involvement of the European Office of the World Health Organization.
- The involvement of all 25 EU Member States, as well as five acceding and candidate countries.

## **PARTICIPANTS AND RESEARCH TEAM**

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### **Participants**

Number of participants: 9

Number of countries involved: 7

	Type	Country	Role	Previous participations in FP
STICHTING KATHOLIEKE UNIVERSITEIT	HES	NL	Coordinator	1
LUDWIG BOLTZMANN GESELLSCHAFT	REC	AT	Participant	1
PRAGUE PSYCHIATRIC CENTER	REC	CZ	Participant	1
GENERALITAT DE CATALUNYA	OTH	ES	Participant	1
INSTITUTE OF PSYCHIATRY AND NEUROLOGY	REC	PL	Participant	1
UNIVERSITY OF SOUTHAMPTON	HES	GB	Participant	1
LONDON SCHOOL OF ECONOMICS AND POLITICAL SCIENCE	HES	GB	Participant	38
HELSINGIN YLIOPISTO	HES	FI	Participant	69
THE UNIVERSITY OF WARWICK	HES	GB	Participant	68

### **Team Composition**

Team Size: 25 members

GENDER				
Female		Male		Unknown
28%		72%		0%
SENIORITY				
Average		Junior		Senior
0%		0%		100%
PhD				
No			Yes	
20%			80%	
BACKGROUND				
Applied Sciences	Health Sciences	Humanities & Social Sciences	Natural Sciences	Unknown
4%	88%	8%	0%	0%

\*The data are based on the analysis of the provided project's Description of Work.

## DELIVERABLES AND PUBLICATIONS

### Deliverables

DELIVERABLE NO.	DELIVERABLE NAME	DUE DATE OF DELIVERY (month)	ACTUAL SUBMISSION DATE: (month)
1	Protocol for inclusion of programmes, tool for programme description, evidence guide	12	-
2	Development and improvement of the software of a standardized Internet database to input all the programme descriptions and outcomes	24	-
3	Description and input of gathered parenting support programmes in database and appraisal of best practice	30	-
4	Evidence synthesis and report on evidence and outcomes for prevention and promotion through parenting support	30	-
5	Description and input of gathered school-based programmes for children and adolescents in database and appraisal of best practice	30	-
6	Evidence synthesis and report on evidence and outcomes for school-based programmes for children and adolescents	30	-
7	Description and input of gathered workplace programmes for adults' mental health in database and appraisal of evidence	30	-
8	Evidence synthesis and report on evidence and outcome for workplace programmes for adults' mental health	30	-
9	Description and input of gathered prevention and promotion programmes for elder populations in database and appraisal of best practice	30	-
10	Evidence synthesis and report on evidence and outcomes for prevention and promotion programmes for elder populations	30	-
11	Updated systematic review, augmented by information gathered in WPs 2-5 on potential cost effectiveness of MHP/MDP prog's identified	29	-
12	Description and input of cost effectiveness analyses and economic outcomes of programmes collected in WPs 2-5	30	-
13	Report on practical and methodological challenges of economic evaluation of MHP and MDP interventions.	30	-
14	Database of country focal points to identify grey literature and implemented programmes	30	-
15	Listserve at European, country, regional and local levels to disseminate findings	33	-

### Related publications

PUBLICATION TITLE	Number of citations
Identifying Evidence-Based Work on Mental Health Promotion in Schools in Europe: An Interim Report on the DataPrev Project	12
Investing in mental health and well-being: findings from the DataPrev project	54
Parenting for mental health: what does the evidence say we need to do? Report of Workpackage 2 of the DataPrev project	41

### MAIN SOURCES

DATAPREV Description of Work				
DATAPREV	Periodic	Report	Summary	2

## **RTD AND D TO INCREASE THE SHARE OF RENEWABLES IN EMERGING AND DEVELOPING COUNTRIES WITH EUROPEAN TECHNOLOGIES; POLICIES ASSESSMENT, STAKEHOLDERS OPINION, BEST-PRACTICES AND RECOMMENDATIONS - "RTD4EDC"**

Framework Programme: FP6 related to SaS

Action line/Part: -

Activity: -

Area: -

Dimension: GOVERNANCE AND SCIENTIFIC ADVICE

Tool: Specific Support Actions

Project Call For Proposal: FP6-2005-SSP-5-A

Status: Closed

Total cost: € 200 000.00

Total EU funding: € 200 000.00

Website: [www.developingrenewables.org](http://www.developingrenewables.org)

Period: 01/01/2007 – 30/06/2008

Subjects: renewable sources of energy

Project ID and Acronym: 44371 RTD4EDC

### **BACKGROUND AND CONTEXT OF THE PROJECT AND STRATEGIC NEEDS**

The future energy demand worldwide will increase by 45% in 2030. To be able to meet this demand, respond to the threats of climate change and also improve access to energy for the very poor in emerging and developing countries (especially in rural areas), renewable energy technologies play a crucial role.

Recent developments have demonstrated a growing interest in renewables in Emerging and Developing Countries (EDCs), and the need for a more active approach in increasing the share of renewables. The basis for these developments differ from a growing concern for climate change and loss of market share to the opportunities for poverty alleviation, improving access to energy and improving socio-economic standards in EDCs as a whole.

There is a clear need for the strengthening of international co-operation on renewable energy. Many international and European initiatives such as the 2002 Johannesburg Renewable Energy Coalition (JREC) or the 2002 EU Energy Initiative (EUEI) aim to increase the global share of renewable energy sources in the total energy supply. The conclusions of the 2005 Beijing Renewable International conference also highlighted the need to strengthen international co-operation on renewable energy.

There is a clear need and political will to increase the share of renewables worldwide. There is also a wealth of experience available over the past decade especially with demonstration projects. However, so far, the increase of renewable energy production in EDCs is slow compared to developed countries. Initiatives traditionally focus on technology transfer through demonstration, capacity building and networking.

### **SPECIFIC PROJECT OBJECTIVES**

#### **Project objectives**

The RTD4EDC project focussed on the implementation of renewable technologies in EDCs. A team of four experienced partners based in Europe and in EDCs aimed at providing:

- Clear 'recipes' for future RTD&D (Research, Technological Development and Demonstration) activities for the European Commission, based on a better understanding of:
  - The potential impact of EU RTD&D activities (relative to possible other policy options) on the share of renewables in EDCs;
  - The relation of EU RTD&D activities with best and worst practices of implementation of renewables in edcs;
  - The possibilities of EU RTD&D activities to promote EU renewables industry in edcs;
- Increased opportunities for the European renewables industry to export to EDCs due to:
  - A better understanding of export potentials to edcs;
  - An increased awareness of the possibilities for implementing renewables in EDCS;
  - (when implemented) RTD&D policy activities supporting the industries activities.

The strategic objectives addressed were the following:

- To assess the role of research, technological development and demonstration (RTD&D) and to compare it with other options to implement modern renewable energy technologies in emerging and developing countries also in the context of the Johannesburg Renewable Energy Coalition and the EU Energy Initiative;

- To identify best-practices, especially for capacity-building, technology transfer, training, etc. in emerging economies and developing countries;
- To quantitatively evaluate the export potential for EU renewable industry and propose specific policy measures to achieve this potential.

### **SaS dimensions**

The RTD4EDC project was relevant to the SaS governance and science advice dimension. The project focused on supporting and providing background to European policies related to RTD&D and renewable energy in EDCs.

### **Innovation Union objectives:**

Since the RTD4EDC project aimed at **evaluating** the export potential for EU renewable industry and proposing specific policy measures to achieve this potential, it was in line with the Innovation Union objective of getting good ideas to market. Furthermore the project's goal of identifying best practices in emerging economies and developing countries was consistent with the Innovation Union aim to strengthen the knowledge base and reduce fragmentation.

### **European Research Area (ERA) objectives**

The project was consistent with the ERA objective of promoting optimal co-operation and competition, as it aimed at identifying EU RTD&D policy recommendations for increasing the share of renewables in EDCs and achieving the export potential in EDCs for EU renewables industry.

### **SaS Action Plan**

As RTD4EDC planned to evaluate the export potential for EU and to outline policy measures, the project objectives were in line with the "Research a foresight for society" dimension of the SaS programme and more particularly with the action 28, which consisted in ensuring co-ordination of prospective activity at the European level.

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## **PROJECT RESULTS AND OUTCOMES**

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### **Project objectives**

The implementation of the RTD4EDC project enabled the following results:

- **The elaboration of conclusions** clarifying the potential of renewable energy in EDCs, the role of RTD&D in furthering their implementation and facilitating EU industry to access these high potential markets;
- **The drafting of recommendations** related to the building of partnership between EU and EDC research communities as well as with EU industry and local stakeholders. Furthermore, the recommendations specified that RTD&D effort should be focussed on specific local needs and socio-economic circumstances and how to improve the learning curve as well as specifying how to improve the learning curve.

However, as stated in the Project Final Activity Report:

- The objective to "ensure that the project results are made available to the identified stakeholders and to a wider audience of interested people and organisations" was met but with some delays. In fact, the large variety of related policy documents caused delays in the draft final results, which delayed the sending of newsletters to identified stakeholders. Consequently, the objective to "ensure that the work is carried out in a well-organised, structured manner; results are collected in a harmonised manner; the project team is managed and instructed timely and accurately and communications with the Commission, Advisory Board and external parties are well-organised, adequate and timely" was not met. In fact, due to the variety and complexity of the document research, the project's deadline was postponed and validated by the Commission.

### **Programme objectives**

The project consisted in providing policy recommendations and a synthetic and accessible information basis on lessons learned regarding the implementation of renewable energy technologies in EDCs which therefore contributed to "examine systematically the various components of 'science and governance' in order to create conditions under which policy decisions are more effective in meeting society's needs, more soundly based in science and at the same time taking account the concerns of civil society" (first SaS specific objective). More specifically, the project participated to "creating a more dynamic interface between science and policy making" (area line 4.3.1.1).

### **Main achievements according to SaS Dimensions**

Since the project consortium drew conclusion about the economic potential of the renewable energy market in EDCs, it helped develop the idea that growth and environmentally friendly actions are not incompatible, therefore meeting one of the SaS Governance and Scientific Advice dimension purposes. Moreover, through the development of policy recommendations and of synthetic and accessible information basis on lessons learned, the project contributed to reinforcing the scientific advice in policy making.

## **DISSEMINATION AND ENGAGEMENT ACTIVITIES AIMED AT TRANSFERRING THE PROJECT RESULTS TO WIDER COMMUNITIES**

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In their deliverables (in particular in the Description of Work), project partners specified their plan for using and disseminating knowledge as follows:

- **Launch and animation of a website:** The main objective for the website was to make results public and to make all background data and information available to whoever likes to use it. The project website was developed () and best and worst practices were stored in a web-based database.
- **Elaboration of electronic newsletters:** The RTD4EDC sent electronic newsletters to people who demonstrated an interest in the results. Three newsletters were sent to about 500 persons;
- **Organisation of a seminar** for validation of results and recommendation: The main purpose of the workshop was to validate the conclusions of the study and to develop and validate recommendations based on these conclusions. It was organised on 29 September 2008.
- **Organisation of a validation workshop:** The validation workshop was organised on 29 September in Brussels and was attended by 17 persons.

On the basis of the Project Activity Final Report, it seems that all dissemination activities planned in the Description of Work were completed.

## **PROJECT IMPACTS**

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### **Potential impact**

Activities carried out in the RTD4EDC project focussed on the implementation of renewable energy in EDCs. This proposed work aimed directly at supporting and providing background information for European policies. It focused on European RTD&D policy issues and the export potential for the European Renewable Energy Industry.

Potential impacts can be further assessed through the following indicators:

- **Betweenness centrality:** None out of the four institutions involved in the project are in the top 10% most central institutions of FP6;
- **Scientific attractiveness:** Among the four institutions involved in the RTD4EDC project, none appeared in the Leiden university ranking. It can be explained by the fact that most of them are not universities;
- **Business attractiveness:** No participants from PACT were ranked amongst the biggest R&D investors having participated in SaS.

### **Actual impact**

Beyond expectations, the actual impacts can be classified in the following:

- **Scientific impact:** The RTD4EDC project produced conclusions and recommendations related to the implementation of renewable energy in EDCs. This production brings clarifications on the link, in particular, between the RTD&D and the implementation of renewable energy in EDCs. This suggests a positive impact from a scientific point of view;
- **Institutional and organisational impact:** In their conclusions, the RTD4EDC specified in particular the possibilities of EU RTD&D activities to promote the EU renewables industry in EDCs. This conclusion could have an impact on the organisation of EU RTD&D activities, however, no data can be found regarding whether it has been used;
- **Policy impact:** Project results aim at supporting and providing background information for European policies (in particular those related to RTD&D, climate change and EDCs). However, in the deliverables no information could be found whether policy makers used conclusions and recommendations;
- **Social media impact:** Between 2008 and 2010, only one post was found referring to the RTD4EDC project, suggesting a non-existent social impact in terms of social media listening buzz results. This can be partially explained by the state of technology at the time of the project implementation.

## **EU ADDED VALUE OF THE PROJECT**

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Apart from the significant leverage effect of the FP6 funding on the project (it is fully funded through FP6), the project was considered to have EU added value since its implementation by partners from four partners from the EU and EDCs enabled optimal dissemination and publication of its objectives and results. Moreover, the project results focussed on providing and supporting background documentation relating to European policies which would not have been undertaken had a single Member State acted alone.

## PARTICIPANTS AND RESEARCH TEAM

### Participants

Number of participants: 4

Number of countries involved: 4

	Type	Country	Role	Previous participations to FP
NERS FOR INNOVATION B.V.	REC	NL	Coordinator	2
IT POWER INDIA LTD	OTH	IN	Participant	1
NANO ENERGY (PTY) LTD	IND	ZA	Participant	1
ESTRATEGIAS ENERGETICAS PARA UN DESAROLLO SUSTENTABLE	OTH	PY	Participant	1

### Team Composition

Team Size: 9 members\*

GENDER				
Female		Male		Unknown
0%		89%		11%
SENIORITY				
Average		Junior		Senior
0%		33%		67%
PhD				
No			Yes	
100%			0%	
BACKGROUND				
Applied Sciences	Health Sciences	Humanities & Social Sciences	Natural Sciences	Unknown
0%	0%	22%	44%	33%

\*The data are based on the analysis of the provided project's Description of Work.

## DELIVERABLES AND PUBLICATIONS

DELIVERABLE NO.	DELIVERABLE NAME	DUE DATE OF DELIVERY (month)	ACTUAL SUBMISSION DATE: (month)
D1.1	Report: the role of EU RTD&D policy to increase the implementation of renewables in EDC's	6	23
D2.1	Online database with 75 best and worst practices	6	-
D2.2	Report: the role of EU RTD&D activities in best and worst practices for implementing renewables	7	23
D3.1	Report on effective RTD&D policies to realize the EU RE potential to EDC's	11	-
D4.1	Final 'synthesis' report	15	23
D5.1	Progress reports (management and financial) to the EC	13, 18	23
D5.2	Consortium agreement	1	-

## MAIN SOURCES

### Main sources of information include:

eCorda;  
CORDIS database;  
OPENAIRE database,  
RTD4EDC CONSORTIUM (2006). Description of Work. Annex 1  
RTD4EDC CONSORTIUM (2008), Final publishable report

## **PROMOTING AND PROTECTING MENTAL HEALTH – SUPPORTING POLICY THROUGH INTEGRATION OF RESEARCH, CURRENT APPROACHES AND PRACTICE - "PROMENPOL"**

**Framework Programme: FP6 related to SAS**  
**Dimension: GOVERNANCE AND SCIENTIFIC ADVICE**  
**Tool: Coordination Actions**  
**Project Call For Proposal: FP6-2005-SSP-5-A**  
**Status: Closed**  
**Total cost: € 1 031 429.00**  
**Total EU funding: € 1 031 429.00**  
**Website: <http://www.mentalhealthpromotion.net/>**  
**Period: 01/01/2007 – 31/12/2009**  
**Subjects: Health – Social Aspects - Policies**  
**Project ID and Acronym: 44406 PROMENPOL**

### **BACKGROUND AND CONTEXT OF THE PROJECT AND STRATEGIC NEEDS**

Although mental health is widely recognised as central to human, social and economic capital of society, the incidence and costs associated with mental distress and ill health are substantial and expected to rise. Simultaneously, a wide range of services, goods and theories are being developed to help people overcome stress and improve their mental health. Amongst this wide diversity of models and methods to address mental distress, it can come as a challenge to identify serious, documented "solutions" to effectively foster personal mental health.

### **SPECIFIC PROJECT OBJECTIVES**

#### **Project objectives**

The project aimed to **identify useful and practical approaches to the promotion and protection of mental health** amongst the wide diversity of existing theories, models and methods, in order to create a systematic, multidimensional approach to promoting personal mental health and managing the risk factors that predispose distress and pathology.

Working with specialist and mainstream researchers, stakeholders, networks, professionals, practitioners and representation organisations, ProMenPol set itself a number of objectives aimed at achieving the following:

- Conceptual framework: To integrate different conceptual and practical approaches to the issue of mental health and illness, drawing upon the traditions of health protection and promotion, the WHO International Classification of Functioning (ICF) as applied to mental health and illness, and the practice-based approaches of public health;
- Online database and toolkit: The identification of tools for the protection and promotion of mental health customised to the life span stage of target users and predominant context within which they live their lives i.e. school, work and residences for older people;
- Field trials: To undertake field trials in order to evaluate and review the knowledge base;
- Knowledge management system: To develop a systematic and user-friendly knowledge management system gathering useful information, key references and important web links;
- Sustainable collaboration: To create a sustainable collaboration between key actors to carry forward the results and deliverables into the later stages of the project and beyond.

#### **SaS dimension objectives**

The ProMenPol project was designed to make an active contribution to a more coherent overall mental health policy vision for the EU through the identification of useful of practical approaches. The project worked with specialist and mainstream researchers, stakeholders, networks, professionals, practitioners and representation organisations. In that respect, the project's objective was relevant for the SaS Governance and science advice dimension whose purpose was in particular to place the research activities at the heart of the society and thus in the policy-making process.

#### **Innovation Union objectives**

By intending to contribute to a more coherent mental health policy vision for the EU, the ProMenPol project was in line with the first intermediate objective of the Innovation Union namely "*strengthening the knowledge base and reducing fragmentation*".

#### **European Research Area (ERA) objectives**

The project objectives are consistent with the ERA objective of ensuring optimal circulation, access to and transfer of scientific knowledge through the development of a conceptual framework on mental health and illness, the creation of an online database and toolkit, as well as the creation of a collaboration scheme between key actors in the related field. The latter point is also consistent with the ERA objective of ensuring optimal cooperation in research at the EU level.

### **SaS Action Plan**

Through the creation of an online database and toolkit and the creation of sustainable collaboration between key actors, the project aimed to contribute to Action 28 of the action plan (Ensure coordination of prospective activity at the European level) and Action 37 (Created internet-based networks of scientists).

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## **PROJECT RESULTS AND OUTCOMES**

### **Main achievements according to project objectives**

The implementation of the ProMenPol project led to the following results:

- Concerning objective 1 and 2, **an Online database & toolkit manual** was developed: The ProMenPol Database contained a structured selection of more than 400 mental health promotion (MHP) tools which can be applied in three settings (schools, workplaces, older people's residences);
- Concerning objective 3, 16 field trials were documented and reported their implementation of a mental health promotion tool;
- Concerning objective 4 and 5, **a global network on mental health promotion** was created: This was achieved in part through the annual conferences and policy workshops and in part through the successful website and newsletter. Furthermore all partners pursued extensive networking activities.

On the basis of the Project Final Activity Report, it seems that all objectives were accomplished. However, there is no evidence that the following activities foreseen in the DoW were carried out:

- The development of a E-Forum,
- The managing and coordinating activities foreseen in the first work package,
- The realisation of the external and internal evaluation,
- Evaluation and reporting of pilot studies.

### **Main achievements according to SaS Dimensions**

The conduct of the ProMenPol project led to in particular the development of an online data base and toolkit manual that can be applied for three settings (schools, workplaces and older people's residences) and the creation of a global network on mental health promotion. Thus, the project results fully met the objective of the SaS Government and Scientific Advice dimension assisting in strengthening and improving European science systems and improving the understanding of the place of science and technology in society.

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## **DISSEMINATION AND ENGAGEMENT ACTIVITIES AIMED AT TRANSFERRING THE PROJECT RESULTS TO WIDER COMMUNITIES**

The main publishable results emanating from the ProMenPol project concerned, according to the Project Final Activity Report:

- The organisation of three annual **conferences** organised on different themes (the conceptual framework, the database, the pilot studies' results);
- The organisation of policy **Workshops** which served as platforms for discussions amongst policy makers;
- The online database and toolkit manual that enabled undertaking simple and advanced research;
- The project website was designed to act as a pan-European gateway to results, documentation and related issue emanating from the project. Additionally, the website was built interactively and holds several possibilities for registered members to disseminate their own results, tools, events and news;
- A **newsletter** was produced.

However, there is no evidence that the E-forum was developed.

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## **PROJECT IMPACTS**

### **Potential impacts**



The ProMenPol project aimed to make an active contribution to a more coherent overall mental health policy vision for the EU. More specifically, the project partners specified that one of the challenges was to create standard descriptions of 'mentally healthy and safe' environments.

Furthermore, the project's potential impact can be further assessed through the following indicators:

- **Betweenness centrality:** One participating organisation of the ProMenPol project was amongst the most central participants in FP6.
- **Scientific attractiveness:** One participant was ranked in the Leiden University ranking at the 212<sup>th</sup> place (Maastricht University).
- **Business attractiveness:** None project participant was not ranked as one of the biggest R&D investors amongst SaS participants.

### Actual impacts

Beyond the expectations, the actual impacts can be classified as follows:

- **Scientific impact:** The ProMenPol project disseminated its results and best practices through its website. The project's website and newsletter were very well received as evidenced by the website statistics: During 2009, 1.694.346 hits and 55.998 unique visitors were recorded. In addition, the project led to the publication of one article. All these elements suggest a positive impact from a scientific point of view.
- **Institutional and organisational impact:** As explained in the project's final activity report, various organisations across Europe started to implement mental health promotion activities with the assistance of the ProMenPol, notably as a result of the field trials. Institutions reported sustainable effects on their organisations as well as the intent to keep implementing such activities in the future. Eventually the project resulted in the creation of the European Network for Mental Health Protection (ENMHP), whose work includes training for mental health protection and support for mental health protection implementation.
- **Policy impact:** Different project partners were involved in the drafting of consensus papers that were produced in the context of the European Commission High level conference held in June 2008. In addition, the ProMenPol project presented a poster at the first thematic conference about mental health in youth and education that took place in Stockholm on September 2009. At the final ProMenPol conference, policy makers could directly listen to the experience of practitioners who had implemented mental health promotion tools in their organisation. Several workshops and an interactive discussion also fostered communication between practitioners, policy-makers and members of the scientific community. However the concrete impact in terms of policy resulting from such events could not be found.
- **Social media impact:** No relevant social impact was identified in terms of social media listening buzz results. That can be partially explained by the state of the technology at the time of project implementation. However, the project partners actively disseminated results through their website and newsletters.

### PATH-BREAKING ADVANCEMENTS

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None.

### BEST PRACTICES

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None.

### EU ADDED VALUE OF THE PROJECT

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The project was of EU added value by contributing to the need identified by the Green Paper and the Mental Health Action Plan for Europe to harmonise existing information (to allow comparison and sharing) and to ensure partnership and collaboration. By undertaking the project at a multinational level, the ProMenPol project was able to contribute to the development of an effective mental health strategy by the Commission by increasing the information sharing and collaboration amongst stakeholders. It also resulted in the creation of a European Network for Mental Health Protection gathering practitioners and policy-makers from all over Europe to exchange directly with policy-makers on results obtained from concrete practice.

### PARTICIPANTS AND RESEARCH TEAM

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#### Participants

Number of participants: 9

Number of countries involved: 8

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	Type	Country	Role	Previous participations to FP
FEDERAL INSTITUTE FOR OCCUPATIONAL SAFETY AND HEALTH (BUNDESANSTALT FÜR ARBEITSSCHUTZ UND ARBEITSMEDIZIN)	OTH	DE	Coordinator	1
MENTAL HEALTH EUROPE - SANTÉ MENTALE EUROPE AISBL	OTH	BE	Participant	1
ESTONIAN-SWEDISH MENTAL HEALTH AND SUICIDOLOGY INSTITUTE	REC	EE	Participant	1
EWORX E-BUSINESS SERVICES S.A.	IND	GR	Participant	1
FORSCHUNGSINSTITUT DES WIENER ROTEN KREUZES - RESEARCH INSTITUTE OF THE VIENNESE RED CROSS	REC	AT	Participant	1
UNIVERSITEIT MAASTRICHT	HES	NL	Participant	1
THE REHAB GROUP	OTH	IE	Participant	2
WORK RESEARCH CENTRE	REC	IE	Participant	1
NATIONAL RESEARCH AND DEVELOPMENT CENTRE FOR WELFARE AND HEALTH	OTH FI	FI	Participant	2

### Team Composition

Team Size: members\*

GENDER				
Female		Male		Unknown
33%		42%		25%
SENIORITY				
Average		Junior		Senior
0%		17%		83%
PhD				
No			Yes	
25%			75%	
BACKGROUND				
Applied Sciences	Health Sciences	Humanities & Social Sciences	Natural Sciences	Unknown
0%	67%	25%	0%	8%

\*The data are based on the analysis of the provided project's Description of Work.

### DELIVERABLES AND PUBLICATIONS

DELIVERABLE NO.	DELIVERABLE NAME	DUE DATE OF DELIVERY (month)	ACTUAL SUBMISSION DATE: (month)
D1.1	Periodic activity and management reports	18, 36	18, 37
D1.2	Submission of ethical guidelines and implementation plan for phase 3 for ethical review by the Commission	12	18
D5.1	Conference plan year 1	4	-
D2.1	Project website	6, 36	-
D2.2	e-Forum on mental health protection and promotion	6, 36	-
D4.1	Conceptual framework version 1	6	-
D2.4	Dissemination plan	8	-
D5.2	Conference report year 1	12	-
D2.3	Annual policy workshop reports	13, 25, 36	-
D2.5	Dissemination report	14, 26, 36	18

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DELIVERABLE NO.	DELIVERABLE NAME	DUE DATE OF DELIVERY (month)	ACTUAL SUBMISSION DATE: (month)
D3.1	Annual external evaluation report	14, 26, 36	-
D3.2	Annual internal evaluation report	14, 26, 36	-
D5.3	Conference plan year 2	14	-
D4.3	ProMenPol toolset version 1	15	-
D6.1	Pilot study protocols	15	-
D5.4	Conference report year 2	21	-
D5.5	Conference plan year 3	28	-
D4.2	Conceptual framework version 2	33	-
D4.4	ProMenPol toolset version 2	36	-
D5.6	Conference report year 3	36	-
D6.2	Report on the evaluation of the pilot studies	36	-

Publications no.	PUBLICATION	LINK (when available)
1.	Emmanuelle Jouet (2013), Des recommandations européennes pour la formation des professionnels du sanitaires et du social sur la promotion de la santé mentale : le Guide PROMISE	<a href="http://www.eref2013.univ-montp2.fr/cod6/?q=content/333-des-recommandations-europ%C3%A9ennes-pour-la-formation-des-professionnels-du-sanitaire-et-d-0">http://www.eref2013.univ-montp2.fr/cod6/?q=content/333-des-recommandations-europ%C3%A9ennes-pour-la-formation-des-professionnels-du-sanitaire-et-d-0</a>

## MAIN SOURCES

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### Main sources of information include:

eCORDA;  
CORDIS database;  
OPENAIRE database,  
PROMENPOL CONSORTIUM (2006). Description of Work. Annex 1,  
PROMENPOL CONSORTIUM (2010). Final publishable report

## **MEASURING HEALTH AND DISABILITY IN EUROPE: SUPPORTING POLICY DEVELOPMENT - "MHADIE"**

**Framework Programme: FP6 related to SAS**  
**Action line/Part: -**  
**Activity: -**  
**Area: -**  
**Dimension: GOVERNANCE AND SCIENTIFIC ADVICE**  
**Tool: Coordination Actions**  
**Project Call For Proposal: FP6-2003-SSP-3**  
**Status: Closed**  
**Total cost: € 1 897 857.00**  
**Total EU funding: € 1 897 857.00**  
**Website: [www.mhadie.it](http://www.mhadie.it) (link not in service anymore)**  
**Period: 01/01/2005 - 30/04/2008**  
**Subjects: Disability**  
**Project ID and Acronym: 513708, MHADIE**

### **BACKGROUND AND CONTEXT OF THE PROJECT AND STRATEGIC NEEDS**

Disability can be defined, according to the Cambridge dictionary, as "an illness, injury or condition that makes it difficult for someone to do the things that other people do". Beyond the individual's health status, however, disability is a multi-dimensional phenomenon also influenced by the person's physical and social environment. Disability data and instruments to measure them should therefore reflect the bio-psychosocial aspect of disability to be able to design, implement and evaluate policies and legislation to fight discrimination and promote social integration. In its International Classification of Functioning, Disability and Health (ICF), the World Health Organisation already provided a framework to document the interaction between health status and environmental features, as well as the distribution of disability among different groups in different contexts. As European countries all use different definitions and measures of disability, thus making it impossible to have common policy guidelines, using the ICF framework could enable comparisons and help adequate policy-making at the EU level.

### **SPECIFIC PROJECT OBJECTIVES**

The MHADIE project aimed to demonstrate the feasibility and utility of the ICF model in the measurement of the types and prevalence of impairments. To do so, the following specific objectives were outlined for the project:

- **Sub-objective 1:** To use the ICF model as the structure for analysing existing general population health surveys and education statistics data;
- **Sub-objective 2:** To prove the adequacy of the ICF model for describing and measuring patterns of disability in clinical samples of selected conditions in different countries, in a cross-sectional approach and over time;
- **Sub-objective 3:** To produce policy recommendations and guidelines to harmonise existing sources of data with the ICF model.

#### **SaS dimension**

The project aimed to prove the utility of the ICF model in order to enable comparison of data collected in different Member States on disability. Through the objective of outlining recommendations to harmonise such data, research undertaken under MHADIE was expected to contribute to enhancing policy-making in the field of disability. The projects' objectives were therefore consistent with the Governance and Scientific Advice dimension's objective of putting research back at the heart of society and subjecting its application to political debate.

#### **Innovation Union objectives**

By aiming to enable comparability of data across countries, the project objectives were fully consistent with the Innovation Union objective of strengthening the knowledge base and reducing fragmentation of research in the EU.

#### **European Research Area (ERA) objectives**

By aiming to enable comparability of data across countries, the project's objectives were consistent with the ERA objective of achieving optimal transnational co-operation and competition, as well as that of promoting optimal circulation, access to and transfer of scientific knowledge.

#### **SaS Action Plan**

The objectives of the MHADIE project are considered to be only remotely consistent with the SaS action plan as they did not aim, as such, to promote scientific education and culture in Europe, nor to build a science policy closer to the citizens or to put responsible science at the heart of policy-making.

The MHADIE project aimed to harmonise the measurement of health and disability in the EU context through the implementation of the ICF Framework. The project was therefore fully in line with Action 38 designed to set up a European Common Scientific Reference. The project also contributed to Action 36 "establish guidelines on the use of expertise" through the development of policy recommendations for the use of the ICF Framework. The MHADIE project outputs are considered to be an appropriate basis for the creation of a common multi-linguistic platform and can contribute to Action 37 which aim to create Internet based networks of scientists.

## **PROJECT RESULTS AND OUTCOMES**

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### **Project objectives**

MHADIE managed to prove that the ICF – and its adaptation for children and youth, the ICF-CY – was an appropriate tool to serve as a basis for a common multi-linguistic information platform. More specifically, the project achieved the following results:

- Concerning the **sub-objectives 1 and 2**, available data sets on disability were revised, checking how data on disability were being collected in EU Member States and exploring the possibility to make them comply with the ICF concepts and take environmental factors as well as the different sampling techniques into account. To this end, a training course on ICF and related instruments was organised and a protocol on the evaluation of quality of care in clinical and rehabilitation settings was adopted. Eventually a multicentre, prospective cohort study was designed and completed. As a result, reports on descriptive and multivariate analysis based on baseline data for all health conditions were produced. All this enabled the MHADIE team to build up a dataset of knowledge so as to help define how to measure health and disability in the EU context. An analysis of current applications of childhood disability categories was also undertaken to check the feasibility and applicability of the ICF framework in European educational systems.
- Concerning **sub-objective 3**, MHADIE policy recommendations were drafted based on the contribution of several experts in the field of disability and public health to a policy working document. The policy recommendations also built upon a roundtable organised in Brussels in September 2008 on "Disabled People Organizations' policies on Health and Disability in European countries", during which representatives of people with disabilities (PwDs) discussed with researchers and policy advisors. The final version of the project's policy recommendations was presented on 16 September 2008, to delegates representing MEPs, Government of EU Member States, the European Commission, NGOs and experts in the field of disability, during a "High Level Conference" at the European Parliament that gathered more than 100 attendees in total.

The final report did not underline any missing achievements compare to the initial objectives.

### **Main achievements according to SaS Dimensions**

- The MHADIE's results fulfilled the Governance and Scientific Advice dimension's objectives. Indeed the project developed policy recommendations to create common "fit for purpose" definitions integrated in the ICF Framework to harmonise the data on disability collected through the European Member States. This is a step in the establishment of a European Science system. Even if the project contributed to the demonstration of the feasibility and utility of the use of the ICF Framework, the project was not especially designed to improve the understanding of the place of science and technology in society.

## **DISSEMINATION AND ENGAGEMENT ACTIVITIES AIMED AT TRANSFERRING THE PROJECT RESULTS TO WIDER COMMUNITIES**

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The project relied on the following dissemination activities:

- An international conference on the definition of disability was organised in Prague in June 2007;
- A document was submitted to the EC to contribute to the debate at the UN convention on the definition of disability;
- Links were established with the Washington City group and MHADIE results were presented to its meeting held in September 2007 in Dublin;
- A paper for the definition of disability was published in September 2006: Leonardi et al. "The definition of disability: what is in a name?" *Lancet* 2006, 386:1219-21
- A project website was created where all the information about the project and its results was made available: [www.mhadie.it](http://www.mhadie.it) (not in service anymore);
- A European conference was organised in Milan in November 2007, during which EC representatives, members of the European Parliament, representatives of EU governments, representatives of People with Disabilities associations and representatives of patients' associations met MHADIE researchers and were informed about ongoing activities and results;
- A "MHADIE high Level Conference" was organised at the European Parliament in September 2008, during which the project's policy recommendations were presented to delegates representing Members of the

European Parliament, Governments of EU Member States, the European Commission, NGOs and experts in the field of disability.

The final report did not underline any missing achievements compare to the foreseen dissemination activities.

## PROJECT IMPACTS

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### Potential impact

The project expected to have policy impacts at EU level by enabling the comparison of data on disabilities across countries and considering environmental features. Such improvements were expected to help policy-makers when designing EU health and disability policies.

Potential impact can be further assessed through the following indicators:

- **Betweenness centrality:** Out of the sixteen project participants, two were among the top 1% most central institutions to have participated in FP6 projects. Six were among the top 5% and 10 among the top 10%.
- **Scientific attractiveness:** Out of the four universities having participated in the project, two appeared in the Leiden University ranking and ranked 341<sup>th</sup> and 638<sup>th</sup>.
- **Business attractiveness:** No participants were ranked among the biggest R&D investors to have participated in SaS projects.

### Actual impact

Actual impacts can be clustered into four types:

- **Scientific impact:** Three publications related to the project were published. Each was cited between 15 and 17 times in other scientific publications, suggesting a relatively significant scientific impact of the MHADIE project. Moreover the project came up with a very innovative concept of disability, all the more so as there was until then no common definition nor European datasets on disability in the EU 'state of play.
- **Social media impacts:** Only three posts referring to MHADIE could be found on social media, suggesting a non-existent impact of the project through this channel.
- **Institutional and organisational impact:** The project resulted in the setup of a dataset on disability that had no equivalent in Europe before the project, enabling to compare data across Member States.
- **Policy impact:** The MHADIE project benefitted from direct visibility with policy-makers through the organisation of two conferences during which the project's policy recommendations were presented to and discussed with delegates representing Members of the European Parliament, Governments of EU Member States, the European Commission, NGOs and experts in the field of disability. However, no explicit mentions of the MHADIE project could be found in subsequent policy publications by the Commission, the Academic Network of European Disability Expert or the European Parliament.

## PATH-BREAKING ADVANCEMENTS

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None.

## BEST PRACTICES

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None.

## EU ADDED VALUE OF THE PROJECT

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As the project aimed to make data on disability comparable across EU countries so as to help policy-makers in the design of EU health and disability policies, funding the project through EU funds appeared not only justified, but even required to achieve results.

## PARTICIPANTS AND RESEARCH TEAM

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Participants

Number of participants: 16

Number of countries involved: 10

	Type	Country	Role	Previous participations to FP
FONDAZIONE IRCCS LSTITUTO NEUROLOGICO "CARLO BESTA"	REC	IT	Coordinator	0
INSTITUTE FOR	REC	SI	Participant	0

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	Type	Country	Role	Previous participations to FP
REHABILITATION, REPUBLIC OF SLOVENIA				
UNIVERSITY HOSPITAL OF HAMBURG	HES	DE	Participant	0
CHARLES UNIVERSITY	HES	CZ	Participant	0
NATIONAL DISABILITY AUTHORITY	REC	IE	Participant	0
NATIONAL AUTHORITY FOR THE PERSONS WITH HANDICAP, GOVERNMENT OF ROMANIA	OTH	RO	Participant	0
REGIONE LOMBARDIA	OTH	IT	Participant	0
INSTITUT MUNICIPAL D'ASSISTÈNCIA SANITÀRIA	REC	ES	Participant	0
REGIONE FRIULI VENEZIA GIULIA AGENZIA REGIONALE SANITÀ	OTH	IT	Participant	0
MALARDALEN UNIVERSITY	HES	SE	Participant	0
CF CONSULTING FINANZIAMENTI UNIONE EUROPEA	OTH	IT	Participant	4
PAEDAGOGISCHE HOCHSCHULE ZURICH	HES	CH	Participant	1
WORLD HEALTH ORGANISATION.	REC	CH	Participant	8
EUROPEAN FEDERATION OF NEUROLOGICAL ASSOCIATIONS	OTH	BE	Participant	1
UNIVERSIDAD AUTONOMA DE MADRID	HES	ES	Participant	32
LUDWIG-MAXIMILIANS-UNIVERSITAET MUENCHEN	HES	DE	Participant	51

### DELIVERABLES AND PUBLICATIONS

It presents the documents produced by the project (intermediate and final report, dissemination report) and any publication produced as direct consequence of the project.

#### Project deliverables

The list of deliverables was not provided.

#### Related publications

PUBLICATION TITLE	Number of citations
<i>Integrating research into policy planning: MHADIE policy recommendations</i>	17
<i>Measuring health and disability: supporting policy development. The European MHADIE project</i>	15
<i>The International Classification of Functioning, Disability and Health: development of capacity and performance scales</i>	15

### MAIN SOURCES

Final Activity Report  
CORDIS Database  
ANED Website

## **DEVELOPMENT OF RESEARCHERS MOBILITY POLICY GUIDELINES FOR THE REGION OF WESTERN BALKANS - "WEBMOB"**

**Framework Programme: FP6 related to SAS**  
**Dimension: Government and Scientific Advice**  
**Tool: Specific Support Actions**  
**Project Call For Proposal: FP6-2002-INCO-COMULTIATRTO/SSA-5**  
**Status: Closed**  
**Total cost: € 402.080,00**  
**Total EU funding: € 210.00,00**  
**Website: <http://webmob.masfak.ni.ac.rs/sitegenius/topic.php?id=273>**  
**Period: 01/09/2005 - 31/10/2007**  
**Subjects: Medicine and Health**  
**Project ID and Acronym: ID: 515923 WEB-MOB**

### **BACKGROUND AND CONTEXT OF THE PROJECT AND STRATEGIC NEEDS**

The importance of incoming and internal mobility for the EU has been identified, with Member States producing national guides and creating national portals devoted to mobility to ensure the sharing of information on this issue. In addition an EU portal, entitled the ERAMORE Network (European Research Area Mobility of Researchers Network) has been created.

Inhibition of mobility can be detrimental to a country's research initiatives. A comprehensive investigation into mobility barriers for researchers in the Western Balkans promises to halt "brain-drain" and increase the region's attractiveness to workers.

### **SPECIFIC PROJECT OBJECTIVES**

#### **SaS dimension objectives**

The WEB-MOB project related to the development of mobility policy guidelines for the Western Balkan region in order to prevent the brain-drain of the researchers and attract researchers back in the countries of origin and generally contribute to the strategic planning for the exploitation of human resources. In addition, the project was expected to contribute to the reinforcement of the Western Balkans Countries' research potential. In that respect, the project's objective was in line with the objective of the Government and Scientific SaS dimension whose purpose was in particular to place research activities at the heart of society and thus in the policy-making process.

#### **Innovation Union objectives**

"*Effective functioning of the EU innovation system*" is the sixth intermediate objective of the Innovation Union. By aiming to develop mobility policy guidelines the WEB-MOB project aimed to contribute to the reinforcement of the Western Balkans Countries research potential and was therefore consistent with the Innovation Union.

#### **European Research Area (ERA) objectives**

Through the development of mobility policy guidelines, the WEB-MOB project contributed therefore to "an open labour market for researchers" (third ERA priority).

#### **SaS Action Plan**

The Web-Mob project, through the development of mobility policy guidelines was integrated in the Action 36 of the SaS Action plan. The three mapping exercises and the development of the WEB-MOB portal contributed to the implementation of Action 37 by enhancing the internet stakeholder collaboration on researcher mobility.

### **PROJECT RESULTS AND OUTCOMES**

The main output of the WEB-MOB project was **the preparation of a series of guidelines related to researchers' mobility policy in the region of Western Balkans** that could be useful to national governments for the formulation of common policy in terms of enhancing researcher's mobility policy and eliminate existing mobility barriers in the region.

Accordingly, the main results achieved throughout the first implementation year (01/09/2005-31/09/2006) are summarised below:

- **Implementation of a mapping exercise** through the identification of existing legislation related to mobility obstacles in the Western Balkan countries (WP2);
- **Completion of three mapping exercises** by identifying research and academic organisations capable of attracting researchers; focal points within ministries; governmental organisations, local authorities,



professional associations and chambers capable of offering information or assistance in matters of overcoming mobility obstacles based on the injunctions of national legislations (i.e. visa requirements, work permits, social security, pension rights, etc.). In addition, part of the mapping exercise concerned the identification of web addresses providing relative information to IPR issues, job opportunities, salaries, taxation schemes, national legislation in relation to mobility (visa requirements, work permits, social security, pension rights etc.) (WP3). All information collected was integrated in a database;

- **Development of the first prototype of the WEB-MOB portal** (<http://webmob.masfak.ni.ac.yu>) (WP7).

During the second project implementation year, the major achievements are briefly described as follows:

- **Training of National Expert Groups (NEG) of Bosnia and Herzegovina and Serbia** (WP1). Organisation of two Steering Committee meetings in Hvar Island and in Sarajevo (WP1);
- **Continuous update of the database** with the results of the mapping exercise (i.e. creation of directories) which was created during the first period of the project. The database contained lists with: a) research and academic institutes (600 organisations), b) web links of portals containing useful information for mobility issues and c) the identification of focal points within ministries, government organizations, and local authorities (WP 3);
- **Organisation of multiple workshops in different countries** for the promotion of the project and feedback. Multiple local events were organised in most of the WB countries as well as presentations of the project at international level (3 conferences in Paris, Sofia and Thessaloniki). (WP5);
- **Development of mobility guidelines.** Partners from Western Balkan countries collected all necessary information related to researchers' mobility issues and the coordinator produced a comprehensive report which contained policy guidelines for reducing and eliminating mobility obstacles. The report was meant to be used as a consultation tool for policy makers of the region. (WP6);
- **The constant update of the WEB-MOB portal** which included the change of URL from <http://webmob.masfak.ni.ac.yu> to <http://www.WEB-MOB.eu> in order to give a more European perspective to the project. Despite the completion of the project, the consortium decided to expand the ownership of the domain name for two more years (WP7).
- All the achievements planned in the Description of Work were achieved in the Final Report.

#### **Main achievements according to SaS Dimensions**

The conduct of the WEB-MOB project resulted in the elaboration of a series of guidelines related to researchers' mobility policy in the Western Balkans region. As those guidelines were supposed to contribute to the reinforcement of the research potential of this region, the project was deemed successful in contributing to the SaS Government and Scientific Advice dimension and especially the improvement of the European science systems through the integration of scientific advice in policymaking. Through a better understanding of the researcher's mobility needs, the project also overall contributed to a better understanding of the place of science in society.

#### **DISSEMINATION AND ENGAGEMENT ACTIVITIES AIMED AT TRANSFERRING THE PROJECT RESULTS TO WIDER COMMUNITIES**

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In the WEB-MOB project, a plethora of dissemination tools was used to highlight the attractiveness of the Western Balkan region for mobile researchers and achieved maximum visibility for the results of the WEB-MOB project as follows:

- The results were presented in local, national and international works, symposiums and conferences achieving a large visibility. According to project participants, the plethora of announcements in different events made the project widely known and results in the coordinator's invitation to events organised by the Austrian Ministry of Science and Education and by the Scientific and Technological Research Council of Turkey for presenting the project;
- Announcements in the local media;
- Distribution of informative material like leaflets (1 000), Development of all questionnaires and dissemination to stakeholders, Development of power point presentations used during workshops;
- The WEB-MOB portal also played a significant role for achieving the maximum visibility for all project's activities. During the two-year duration of the project, the portal was visited by approximately 6000 people.

#### **PROJECT IMPACTS**

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##### **Potential impacts**

It was believed that the results of the WEB-MOB project would strongly impact mobility policy in the Western Balkans region as well as promoting and enhancing the process of ERA integration in those countries.

Furthermore, the project's potential impact can be further assessed through the following indicators:

- **Betweenness centrality:** Two participating organisations of the WEB-MOB project were amongst the most central participants in FP6.
- **Scientific attractiveness:** One participant was ranked in the Leiden University ranking at 687th place (University of Zagreb).
- **Business attractiveness:** No project participant was not ranked as one of the biggest R&D investors amongst SaS participants.

### Actual impacts

Beyond expectations, the actual impacts can be classified in the following sections:

- **Scientific impact:** The conduct of the WEB-MOB project enabled, in particular, the drafting of the "Synthesis report and the policy guidelines for reducing and eliminating obstacles to the mobility of researchers". According to project participants, this report was meant to be used by national government and policy makers in order to forward ERA goals and strategies. All this information suggests a positive impact.
- **Institutional and organisational impact:** The production of guidelines related to mobility policies could have an impact on institutions and organisations working in the Western Balkans region. Nevertheless, no information is specified in the deliverables.
- **Policy impact:** According to project participants, the conduct of the WEB-MOB project contributed to the Lisbon mandate related to the Mobility Strategy for the ERA and the priorities of the Action for Science and Technology Cooperation between the EU and Balkan Countries of 2003. However, many issues remain to be prioritised in the policy agendas and integrated in national legislations. Specific recommendations for each country were developed and are available for consultation by national governments and European stakeholders.
- **Social media impact:** There has been no social impact in terms of social media listening buzz results. That can be partially explained by the state of the technology at the time of project implementation.

### PATH-BREAKING ADVANCEMENTS

None.

### BEST PRACTICES

None.

### EU ADDED VALUE OF THE PROJECT

Project partners did not specify their analysis regarding the EU added value of their project however the project is considered to be of added value due to the importance placed on mobility as a core principle of the EU. By enhancing mobility through the development of guidelines, the EU-funded project has contributed to the integration and strengthening of ERA in the Western Balkan region.

### PARTICIPANTS AND RESEARCH TEAM

#### Participants

Number of participants: 7

Number of countries involved: 6

	Type	Country	Role	Previous participations to FP
CENTRE FOR RESEARCH AND TECHNOLOGY HELLAS	REC	GR	Coordinator	27
THE REGIONAL ENVIRONMENTAL CENTER FOR CENTRAL AND EASTERN EUROPE, COUNTRY OFFICE SERBIA AND MONTENEGRO	OTH	RS	Participant	1
UNIVERSITY OF NIS, MECHANICAL ENGINEERING FACULTY	HES	RS	Participant	1
GEOGRAPHIC STUDIES CENTER	REC	AL	Participant	2

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	Type	Country	Role	Previous participations to FP
HYDRO ENGINEERING INSTITUTE SARAJEVO	REC	BA	Participant	4
RESEARCH CENTER FOR ENERGY, INFORMATICS AND MATERIALS OF THE MACEDONIAN ACADEMY OF SCIENCES AND ARTS	REC	MK	Participant	2
FACULTY OF MECHANICAL ENGINEERING AND NAVAL ARCHITECTURE	HES	HR	Participant	2

No publication seems to have been published.

### Team Composition

Team Size: members\*

GENDER				
Female		Male		Unknown
0%		43%		57%
SENIORITY				
Average		Junior		Senior
0%		0%		100%
PhD				
No			Yes	
0%			100%	
BACKGROUND				
Applied Sciences	Health Sciences	Humanities & Social Sciences	Natural Sciences	Unknown
71,43%	0%	14%	0%	14%

\*The data are based on the analysis of the provided project's Description of Work.

### DELIVERABLES AND PUBLICATIONS

DELIVERABLE NO.	DELIVERABLE NAME	DUE DATE OF DELIVERY (month)	ACTUAL SUBMISSION DATE: (month)
D 1.1	First annual progress report	12	-
D 1.2	Final report	24	-
D 2.1	Results from the mapping exercise	9	26
D 3.1	Review report of the existing mobility policy in WBC	10	-
D4.1	Leaflets/Brochures: 1000 multilingual leaflets.	14	-
D4.2	Questionnaires	14	-
D4.3	Power point presentations	14	-
D5.1	Lists of participant in workshops	24	-
D5.2	Three conferences announcements	24	-
D5.3	Analysis report from feed-back	19	-
D6.1	5 draft mobility guides	14	-
D6.2	5 mobility guidelines- final version	24	-
D6.3	1 synthesis report of mobility policy	24	24
D7.1	Final WEB-MOB Portal	22	-
D7.2	Link from WEB-MOB portal to the ERAMORE portal	1	-

### MAIN SOURCES

#### Documentary review:

The eCorda;  
CORDIS database;  
OPENAIRE database;

WEB-MOB CONSORTIUM (2004), Annex 1 - Description of Work  
WEB-MOB CONSORTIUM (2007), Final activity report

## Governance and Scientific Advice, RRI: FP7 Related to SiS

## **LINKING IMPACT ASSESSMENT INSTRUMENTS TO SUSTAINABILITY EXPERTISE - "LIAISE"**

**Framework Programme: FP7 related to SiS**  
**Dimension: Governance and scientific advice**  
**Tool: Network of Excellence**  
**Project Call For Proposal: FP7-ENV-2009-1**  
**Status: Closed**  
**Total cost: € 8.354.536,30**  
**Total EU funding: € 6.996.405,45**  
**Website: <http://www.liaise-kit.eu/>**  
**Period: 01/11/2009 – 30/04/2014**  
**Subjects: Environmental Protection**  
**Project ID and Acronym: 243826 LIAISE**

### **BACKGROUND AND CONTEXT OF THE PROJECT AND STRATEGIC NEEDS**

An evidence based approach of policy development and societal decision making is becoming increasingly important, both in the EU and in Member States. The process of integrated Impact Assessment (IA) provides a potential framework to compare policy options, applicable to all (policy) sectors. The process is able to identify potential trade-offs between different impact areas, regional and temporal scales, thereby maximising the benefits while minimising unwanted side effects.

Considerable funding in the framework of European research programmes has been invested to support IA by means of developing models, methods, datasets, toolboxes and by studying the process of IA. However, both research and the experience of practitioners (principally desk officers) demonstrates that the results of these research projects are not being utilised to its full potential. A better uptake could be expected if the understanding of researchers of policy needs would be improved, the capabilities of tools would be adapted accordingly and awareness of IA practitioners on the potentials of tools developed in research project would be increased.

Additional gaps exist between the different scientific disciplines: Research efforts are fragmented between those that study the functioning of assessment procedures and those that design and update assessment tools. Some research projects are primarily motivated to directly inform IA for SD, but many are primarily motivated by scientific merits.

### **SPECIFIC PROJECT OBJECTIVES**

The Network of Excellence (NoE) LIAISE was funded to explore these gaps, to **develop solutions** and to give these solutions a structural permanence **by developing an organisational setup and a business plan for a future centre of IA excellence** that can continue beyond the funding for the NoE.

Accordingly, the following strategic goals were set:

- **Create the hub of the NoE**, comprising a core group of institutes, whose task will be to initiate and further develop the virtual centre of excellence mentioned in the vision;
- **Use the NoE as a platform to initiate a more structured dialogue between the IA research community and IA users.** This should result in:
  - Communication structures, incentives, and mechanisms that stimulate external institutions to join LIAISE as associate partners and thus contribute to the development of the virtual centre of excellence;
  - A shared IA toolbox reaching out to policy makers and those involved in conducting IAs;
  - A shared research agenda on strategic IA tools and processes and the development of new IA tools;
- Safeguard the achievements of objectives 1 and 2 for the post NoE period.

#### **SiS dimension objectives**

The LIAISE project aimed at bridging the gap between the reservoir of IA knowledge and its actual use in evidence-based policy making for Sustainable Development. Likewise, the project was designed to initiate a dialogue between the IA research community and IA users. In that respect, the project's objective appears to be in line with the objective of the Government and Scientific Advice SiS dimension whose purpose was, in particular, to place the research activities at the heart of the society and thus in the policy-making process.

#### **Innovation Union objectives**

"*Strengthening the knowledge base and reducing fragmentation*" is the first intermediate objective of the Innovation Union. By exploring the gap existing between the IA research communities and IA users, the LIAISE project was in line with the Innovation Union.

### European Research Area (ERA) objectives

The LIAISE project related to bridging the IA research community and IA users with the objective to promote an improved efficiency IA tools, an enhanced use of IA tools in policy processes and a structured dialogue between all the stakeholders involved in IA processes. The project contributed therefore to an "*optimal circulation, access to and transfer of scientific knowledge including via digital ERA*" (fifth ERA priority).

### SaS Action Plan

The project aimed to create a Network of Excellence for clarifying, communicating and exchanging on the IA tools and methodology between policymakers and researchers. Therefore, the project was in line with Action 28 of the SaS Action Plan, as it ensured coordination of prospective activity at the European level and with Action 37, as it developed an Internet based network of scientists.

### PROJECT RESULTS AND OUTCOMES

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The LIAISE project resulted in a **better understanding of the gap between the reservoir of IA knowledge and information and its actual use in evidence-based policy-making for Sustainable Development (SD)**.

The LIAISE consortium united the multi-disciplinary competences of a core of 15 European institutes from 9 countries that in turn consolidated the expertise from large FP6 projects on IA tool development such as SEAMLESS, SENSOR, MATISSE, Sustainability A Test, IQ Tools and EVIA. It included expertise from the field of environmental sciences, economics and political sciences. This made it possible to analyse current policy needs, to link them in innovative ways to the available reservoir of IA knowledge and to test these innovative solutions in targeted, co-designed and co-produced IA test cases.

Based on the information provided by the deliverables, the conduct of the LIAISE project enabled the following outcomes:

- **Elaboration of The Charter** as a key element in establishing a Community of Practice on IA Research for SD with the overall aim to create knowledge;
- **Development of the LIAISE KIT for Impact Assessment** that is a knowledge and community platform to support Policy Impact Assessment for Sustainable Development. It was designed to provide access to knowledge for decision making (e.g.: on model, data sets; methods and experts throughout all steps of policy impact assessment and all dimensions of sustainable development. **Main achievements according to SiS Dimensions**

**according to** the DoW, the LIAISE project aimed to foster a deep understanding of the IA tools and methodology for decision-makers at different levels of governance and in different jurisdictions, in order to develop a bridge between policy makers and IA researchers and users. With the creation of The Charter and a LIAISE KIT for IA addressed to policy makers, the project helped to improve European science systems, enhancing the use of scientific advice in policymaking and mapping a clearer overview of IA tools and sciences in the society. Thus, it met the objective of the SiS Government and Scientific Advice dimension.

### DISSEMINATION AND ENGAGEMENT ACTIVITIES AIMED AT TRANSFERRING THE PROJECT RESULTS TO WIDER COMMUNITIES

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The LIAISE dissemination strategy consisted in implementing a broad, two-way exchange of knowledge and information between IA researchers and users, with the aim to support the realisation of the EU Sustainable Development Strategy.

For the purpose of the dissemination of the LIAISE project, the following measures were developed:

- Creation of a strong corporate identity of the LIAISE project;
- Creation of the LIAISE web-site with an innovation and appealing lay-out and an user friendly structure;
- Development of several dissemination and training products;
- Creation and management of an open platform to enhance dialogue and facilitate communication among the partners of the NoE and to create a forum for discussion with external interested parties, from science to policies;
- Creation of ad-hoc differentiated mailing lists, targeted to the different groups potentially interested in the dissemination and training products,
- Development of the web-tools needed to subscribe to the various NoE dissemination and training products made available on-line;
- Organisation of two workshops and a final conference.

Beyond the scientific community involved in the network, and the potential new scientific partners, the following targets groups were reached by the LIAISE dissemination activities:

- Young researchers and policy makers interested in acquiring a LIAISE training curriculum;
- Policy makers responsible for the design and monitoring of IA systems at the national and European levels;
- Policy makers responsible for conducting IA;
- Private consultants in charge of conducting IA;
- Firms interested in assessing the economic and environmental effectiveness of their investment, technological and social strategies;
- Media interested in spreading knowledge and pivotal experiences in winning sectors or regions on the implementation of IA tools.

In conclusion, it can be assessed that all foreseen dissemination activities were completed and some overreached. In fact, media were not considered to be a target group in the DoW but were reached by the results dissemination.

## PROJECT IMPACTS

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The LIAISE project was designed to achieve:

- An increased integration of the IA Research Community;
- An improved efficiency of IA Tools through their integrated and mutually complementary development;
- An enhanced use of IA tools in policy processes at the EU and MS levels;
- A structured dialogue between research communities and policy makers about IA tools.

Furthermore, the project's potential impact can be further assessed through the following indicators:

- **Betweenness centrality:** All the participating organisations of the LIAISE project were amongst the most central participants in FP7.
- **Scientific attractiveness:** Four participants were ranked in the Leiden University ranking. Their ranking went from 170 (Aarhus University) to 516 (Aristoteles University of Thessaloniki).
- **Business attractiveness:** No project participant was ranked as one of the biggest R&D investors amongst SiS participants.

Based on the documentation available, it is however impossible to assess whether the LIAISE project reached those impacts.

## PATH-BREAKING ADVANCEMENTS

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No path-breaking advancements were identified through the documentary review for the project.

## BEST PRACTICES

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No best practices were identified through the documentary review for the project.

## EU ADDED VALUE OF THE PROJECT

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Project partners did not specify in the deliverables their analysis about the European added-value of the LIAISE. By undertaking a project composed of 15 participants from nine countries, the exchange of information was optimised. While impact assessments are undertaken in all Member States, the exchange of information and best practices at EU level enabled more efficient exchange of information which could not have been undertaken by a Member State acting alone.

## PARTICIPANTS AND RESEARCH TEAM

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### Participants

Number of participants: 15

Number of countries involved: 9

	Type	Country	Role	Previous participations to FP
STICHTING DIENST LANDBOUWKUNDIG	REC	NL	Coordinator	297



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	Type	Country	Role	Previous participations to FP
<b>ONDERZOEK</b>				
AARHUS UNIVERSITET	HES	DK	Participant	267
FREIE UNIVERSITAET BERLIN	HES	DE	Participant	105
HELMHOLTZ-ZENTRUM FUER UMWELTFORSCHUNG GMBH - UFZ	REC	DE	Participant	64
NATURAL ENVIRONMENT RESEARCH COUNCIL	REC	GB	Participant	148
UNIVERSITY OF EAST ANGLIA	HES	GB	Participant	77
WAGENINGEN UNIVERSITY	HES	NL	Participant	253
RHEINISCHE FRIEDRICH-WILHELMS-UNIVERSITAT BONN	HES	DE	Participant	84
ARISTOTELIO PANEPISTIMIO THESSALONIKIS	HES	GR	Participant	146
FONDAZIONE ENI ENRICO MATTEI	REC	IT	Participant	39
FUNDACION TECNALIA RESEARCH & INNOVATION	REC	ES	Participant	139
ZENTRUM FUER EUROPAEISCHE WIRTSCHAFTSFORSCHUNG GmbH	REC	DE	Participant	18
SUOMEN YMPARISTOKESKUS	REC	FI	Participant	45
LEIBNIZ-ZENTRUM FUER AGRARLANDSCHAFTSFORSCHUNG (ZALF) e.V.	REC	DE	Participant	14
ESTONIAN INSTITUTE FOR SUSTAINABLE DEVELOPMENT, STOCKHOLM ENVIRONMENT INSTITUTE TALLINN CENTRE	REC	EE	Participant	4

**Team Composition**

Team Size: members\*

GENDER				
Female		Male		Unknown
29%		30%		18%
SENIORITY				
Average		Junior		Senior
12%		2%		85%
PhD				
No			Yes	
37%			63%	
BACKGROUND				
Applied Sciences	Health Sciences	Humanities & Social Sciences	Natural Sciences	Unknown
7,32%	0%	41%	46%	5%

\*The data are based on the analysis of the provided project's Description of Work.

**DELIVERABLES AND PUBLICATIONS**

DELIVERABLE NO.	DELIVERABLE NAME	DUE DATE OF DELIVERY (month)	ACTUAL SUBMISSION DATE: (month)
D0.1	Policy advisory board	6	-
D0.2	Gender action plan	6	-
D0.3	Letter of institutional commitment to establish the goals of the LIAISE Network of Excellence and beyond the project	6, 36	36, 54
D0.4	Operational planning and monitoring system with guidelines	10	-
D0.5	Quality assurance plan	12	12
D0.6	Activity and final reports for every 18 months	18, 36; 54	-
D0.7	An updated financial and implementation plan	18, 36, 54	18, 54
D1.1	A meta database of different cases of IA in action, drawing on results from inside and outside LIAISE including previous FP6	12	16

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DELIVERABLE NO.	DELIVERABLE NAME	DUE DATE OF DELIVERY (month)	ACTUAL SUBMISSION DATE: (month)
	<i>investments</i>		
D1.2	<i>Review articles in relevant academic journals and practitioner outlets</i>	24	36
D1.3	<i>A summary of user needs and expectations regarding IA processes, IA tools, IA training and WP 6 test cases</i>	10, 24	12, 24
D1.4	<i>A review of the links between IA and wider systems of governance for sustainable development in a representative sample of jurisdictions and/or policy areas, via an edited book or similar</i>	48	48
D2.1	<i>Methodological framework for WP2 activities</i>	12	17
D2.2	<i>Overview of research groups/networks producing knowledge of relevancy for IA tools and processes</i>	18	19
D2.3	<i>Synthesis of research needs for IA tools in research programmes inside and beyond the IA research community</i>	18, 30, 42	19, 23, 42
D2.4	<i>A literature review of the politics and policy of evidence-based of policy-making in different assessment venues, with particular reference to assessment tools</i>	30	-
D2.5	<i>Procedural concept to facilitate a continuous uptake of emerging scientific and social scientific knowledge in IA tool and process improvement, beyond the lifetime of the NoE</i>	42, 54	42, 54
D2.6	<i>Design criteria for research programmes and projects to support their IA and policy relevancy</i>	30, 42, 54	30, 42, 54
D3.1	<i>Reference model for IA tools (RM-IAT)</i>	10, 24	10
D3.2	<i>Analysis of requirements of tools in terms of a. application aim; b. application domain and scale(s); c. flexibility; d. harmonization and standardization; e. usability; f. user scope; g. transparency; h. documentation</i>	12	12, 36, 54
D3.3	<i>Conceptual and architectural design of the toolbox back office</i>	15	54
D3.4	<i>Improved tools (software delivery and deployment) including documentation and manual</i>	18, 30, 42, 54	18, 30, 54
D3.5	<i>Implementation of shared toolbox back office (software delivery and deployment) including documentation and manual</i>	18, 30, 42, 54	52
D3.6	<i>New tools (software delivery and deployment) including documentation and manual</i>	30, 42, 54	54
D4.1	<i>Design options for the toolbox – paper to be presented at the policy advisory board</i>	6	-
D4.2	<i>Concept for the toolbox, description of categories and subcategories, quality criteria and outline for metadescription</i>	9	16
D4.3	<i>Design options for the help desk</i>	6	-
D4.4	<i>Populated toolbox front office with inventories models/tools/actors/good practice/data sources</i>	12, 24, 36, 48	12, 24, 36, 48
D4.5	<i>Help desk</i>	12	19
D5.1	<i>Product standards</i>	30, 36, 42, 48	36
D5.2	<i>Submission of a route map to a self-governing entity</i>	30	30
D5.3	<i>Report on the operating and performance review of the shared toolbox and associated services</i>	36	36
D5.4	<i>Business plan with implementation timelines</i>	12, 24, 36	12, 24, 54
D5.5	<i>Report on the implementation of the business plan</i>	42, 54	54
D6.1	<i>Options for test cases</i>	6, 12	-
D6.2	<i>Modules for IA support</i>	12, 18	12, 18
D6.3	<i>Results from test cases</i>	12, 24, 36	12, 24, 36
D6.4	<i>Material of each closed test case for individual policy briefs for WP7</i>	24, 36	-
D6.5	<i>Final material on the test cases for policy-briefs for WP7</i>	54	54
D7.1	<i>Dissemination plan</i>	6	-
D7.2	<i>Biannual innovation report on IA</i>	Every 6 months	-
D7.3	<i>Periodical news bulletin</i>	6, then monthly	6, 36, 54
D7.4	<i>Open access platform</i>	6	-

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<i>DELIVERABLE NO.</i>	<i>DELIVERABLE NAME</i>	<i>DUE DATE OF DELIVERY (month)</i>	<i>ACTUAL SUBMISSION DATE: (month)</i>
<i>D7.5</i>	<i>Report on the continuous updates of the website</i>	<i>12, 36, 54</i>	<i>12, 36, 54</i>
<i>D7.6</i>	<i>LIAISE curricula for researchers (update)</i>	<i>12, 24</i>	<i>12, 24</i>
<i>D7.7</i>	<i>LIAISE curricula for policy-makers (update)</i>	<i>12, 24</i>	<i>24</i>
<i>D7.8</i>	<i>Concept for IA book series and IA journal</i>	<i>18</i>	<i>-</i>
<i>D7.9</i>	<i>Launch of LIAISE papers series</i>	<i>18</i>	<i>-</i>
<i>D7.10</i>	<i>LIAISE brief series</i>	<i>18, 36, 54</i>	<i>18, 36, 54</i>
<i>D7.11</i>	<i>High level conference</i>	<i>36</i>	<i>54</i>
<i>D7.12</i>	<i>Final workshop</i>	<i>50</i>	<i>54</i>

### **MAIN SOURCES**

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Main sources of information include:

eCorda;

CORDIS database;

OPENAIRE database,

LIAISE CONSORTIUM (2009). Description of Work. Annex 1

## **MAKING PERSONS WITH DISABILITIES FULL CITIZENS – NEW KNOWLEDGE FOR AN INCLUSIVE AND SUSTAINABLE EUROPEAN SOCIAL MODEL - "DISCIT"**

**Framework Programme: FP7 related to SiS**  
**Action line/Part:**  
**Activity:**  
**Area:**  
**Dimension: Civil Society and Citizen Participation**  
**Tool: Scientific Research**  
**Project Call For Proposal: FP7-SSH-2012-2**  
**Status: Closed**  
**Total cost: € 3,055,909.60**  
**Total EU funding: € 2,463,304.00**  
**Website: <http://www.discit.eu>**  
**Period: 01/02/2013 – 31/01/2016**  
**Subjects: Scientific Research**  
**Project ID and Acronym: ID: 320079 - DISCIT**

### **BACKGROUND AND CONTEXT OF THE PROJECT AND STRATEGIC NEEDS**

The last two decades have seen a notable shift towards Active Citizenship across European countries. This takes many forms, both in terms of the ways in which citizens are demanding a wider scope for exercising Active Citizenship and in the ways in which governments are relying on citizens to take on more active responsibilities in ensuring their own well-being and protecting themselves against a range of risks.

A multidimensional understanding of Active Citizenship is needed in order to meet the challenges of ensuring social inclusion, social cohesion and respect for human dignity. The prospect of making Active Citizenship a reality for persons with disabilities depends on the cooperation and coordination of multiple actors operating at different governance levels and in different policies areas (social benefits, social services, social regulation).

### **SPECIFIC PROJECT OBJECTIVES**

#### **Project objectives**

The DISCIT project aimed to **produce new knowledge enabling Member States**, affiliated European countries and the European Union, **to achieve full and effective participation of persons with disabilities in society and in the economy**. In investigating the social and political conditions for making such participation a reality, the project adopted a multifaceted understanding of Active Citizenship to operationalise the notion of "full and effective participation" in the UN Convention on the Rights of Persons with Disabilities (CRPD). On the basis of a multilevel and institutional perspective, the DISCIT project examined how different type of policies can be mutually supportive in enhancing Active Citizenship for persons with disabilities.

More specifically, the DISCIT project was designed to:

- **Develop Active Citizenship as a multifaceted concept** and explore this as a complex challenge for the EU Member States, affiliated European countries and the European Union;
- **Examine the options for synergy** between different governance levels (international, European, national, federal, regional/local) to promote Active Citizenship;
- **Investigate the socio-economic impact of changes in the conditions for Active Citizenship**, i.e. the factors influencing the possibilities for persons with disabilities to fully participate in the economy, the market community living, civic life, and in the use of new technologies;
- **Identify policy lessons and recommendations.**

#### **SiS dimension objectives**

The DISCIT project aimed at producing new knowledge enabling EU Member States to achieve full and effective participation of persons with disabilities in society and in the economy. In that respect, the project's objective was consistent with the SiS Civil Society and Citizen Participation dimension that consisted in creating the conditions for an informed debate between science, politics and society.

#### **Innovation Union objectives**

By aiming to produce new knowledge relating to the conditions of Active Citizenship of persons with disabilities, the DISCIT project was considered to be in line with the first intermediate objective of the Innovation Union namely "*strengthening the knowledge base and reducing fragmentation*".

### European Research Area (ERA) objectives

The DISCIT project aimed at producing new knowledge through carrying out a study that implied in particular the examination of options for synergy between different governance levels and the identification of policy lessons and recommendations. In that respect, the project contributed to an “*optimal circulation, access to and transfer of scientific knowledge including via digital ERA*” (fifth ERA priority).

### SaS Action Plan

Through interviews with persons with disabilities and with national thematic experts, the project drafted working papers, policy papers, policy lessons and recommendations. The outcomes contributed to the Action 36 of the SaS Action Plan, through the establishment of guidelines, through best practices and lessons learnt, on the use of specific expertise.

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## PROJECT RESULTS AND OUTCOMES

### Main achievements according to project objectives

Based on the project documentation available for the project which ended in January 2016, it seems that **the project demonstrated the need for regional accessibility regulation**. Accessibility can be a factor that enables persons with disabilities to live independently, be more autonomous, and participate actively in the economy and in the civil society. This was achieved through the following outcomes:

- **Studying** the interrelation between accessible technology and opportunities for full and effective participation in society;
- **Undertaking of more than 200 semi-structured interviews with persons with disabilities in nine European countries** (Czech Republic, Germany, Ireland, Italy, Norway, Serbia, Sweden, Switzerland and the United Kingdom);
- **Undertaking of a series of interviews with national experts** on this field;
- Drafting of several **working papers and policy papers**;
- Drafting of **policy lessons and recommendations**.

Due to the lack of complete information (i.e. the Final Activity Report), it is not possible to assess whether any objectives were not achieved in their entirety.

### Main achievements according to SiS Dimensions

The DISCIT project identified policy lessons and recommendations related to the way to achieve full and effective participation in the society. The project therefore contributed to the improvement of the European science systems, by fostering the scientific advice in policymaking. It can be assessed that the results met the objective of the SiS Civil Society and Citizen Participation dimension.

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## DISSEMINATION AND ENGAGEMENT ACTIVITIES AIMED AT TRANSFERRING THE PROJECT RESULTS TO WIDER COMMUNITIES

The DISCIT project implemented the following dissemination activities:

- **Creation and animation of a project website** that contained links to different **social media** (Facebook, Twitter and YouTube). The project purchased a license for Hootsuite, a social media management system, to enhance the integration of Facebook, Twitter and YouTube and to include newly identified dissemination opportunities via LinkedIn;
- Drafting of **working papers and policy briefs**;
- Elaboration of **videos** summarising findings of the project;
- Organisation of a Conference in Brussels on 9-10 November 2015.

Due to the lack of complete information (i.e. the Final Activity Report), it is not possible to assess whether all planned dissemination activities were implemented.

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## PROJECT IMPACTS

### Potential impacts

The conduct of the DISCIT project was supposed to lead to an enhancement of the knowledge related to the conditions of the full and effective participation of persons with disabilities in the economy and in the civil society.

The project's potential impact can be further assessed through the following indicators:

- **Betweenness centrality:** The project contained of four participating organisations that were amongst the most FP7 central participants;
- **Scientific attractiveness:** The DISCIT project contained four participating organisations ranked in the Leiden University ranking as follows: 553<sup>th</sup> place for the National University of Ireland, 447<sup>th</sup> place for the Charles University Prague, 432<sup>th</sup> place for University of Cologne and 98<sup>th</sup> for the University of York;
- **Business attractiveness:** The DISCIT project had no participant ranked as one of the biggest R&D investors amongst SiS participants.

### Actual impacts

While the project seemed to be in its final phase, a preliminary assessment of actual impact could be carried out. Actual impacts can be classified into the following sections:

- **Scientific impact:** The DISCIT project enabled the production of a series of working papers and policy briefs. This suggests a positive impact from a scientific impact;
- **Organisational and institutional impact:** The DISCIT project in particular studied the interrelation between accessible technology and opportunities for full and effective participation in society. Their conclusions and recommendations were supposed to have an impact from an organisational and institutional point of view. However, at the stage of the drafting of this case study, no data in this way can be found;
- **Policy impact:** The conduct of the DISCIT project led to the drafting of policy lessons and recommendations. Nevertheless, no data can be found whether it was used by policy makers;
- **Social media impact:** The DISCIT project was present on the social media platform as follows:
  - Until 17 March 2013, the DISCIT Facebook Page was used by 69 persons;
  - Until 18 March 2013, the DISCIT YouTube Channel was visited by 136 viewers;
  - On Twitter, DISCIT has 21 followers.

All this data suggests a medium impact from a social media point of view.

### EU ADDED VALUE OF THE PROJECT

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The DISCIT project was of EU added value by examining the options for synergy between different governance levels (international, European, national, federal and regional/local) instead of focusing on the context of citizenship for persons with disabilities. Accordingly, and as specified in the Description of Work, the DISCIT project contributed to in particular the European Disability Strategy 2010-2020.

### PARTICIPANTS AND RESEARCH TEAM

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#### Participants

Number of participants: 11

Number of countries involved: 10

	Type	Country	Role	Previous participations to FP
HOGSKOLEN I OSLO OG AKERSHUS	HES	NO	Coordinator	17
UPPSALA UNIVERSITET	HES	SE	Participant	253
UNIVERSITY OF YORK	HES	GB	Participant	149
NATIONAL UNIVERSITY OF IRELAND, GALWAY	HES	IE	Participant	129
UNIVERZITA KARLOVA V PRAZE	HES	CZ	Participant	117
UNIVERSITAET ZU KOELN	HES	DE	Participant	57
EUROPEAN DISABILITY FORUM	PUB	BE	Participant	2
HOGSKOLEN I OSLO OG AKERSHUS	HES	NO	Participant	17
PIN SOC.CONS. A R.L. - SERVIZI DIDATTICI E SCIENTIFICI PER L UNIVERSITA DI FIRENZE	HES	IT	Participant	7
SCHWEIZER PARAPLEGIKER-FORSCHUNG AG	REC	CH	Participant	4
INICIJATIVA ZA PRAVA OSOBA SA MENTALNIM INVALIDITETOM MDRI-S	OTH	RS	Participant	1

## Team Composition

Team Size: members\*

GENDER				
Female	Male		Unknown	
62%	36%		3%	
SENIORITY				
Average	Junior		Senior	
0%	21%		79%	
PhD				
No		Yes		
46%		54%		
BACKGROUND				
Applied Sciences	Health Sciences	Humanities & Social Sciences	Natural Sciences	Unknown
0%	0%	87%	0%	10%

\*The data are based on the analysis of the provided project's Description of Work.

## DELIVERABLES AND PUBLICATIONS

DELIVERABLE NO.	DELIVERABLE NAME	DUE DATE OF DELIVERY (month)	ACTUAL SUBMISSION DATE: (month)
D1.1	Evaluation report from the kick-off meeting summarising the agreements of the consortium members	3	3
D1.2	Evaluation report from the 1 <sup>st</sup> progress meetings summarising the agreements of the consortium members	8	8
D1.3	Evaluation report from the 2 <sup>nd</sup> progress meetings summarising the agreements of the consortium members	15	15
D1.4	Evaluation report from the 3 <sup>rd</sup> progress meetings summarising the agreements of the consortium members	31	31
D2.1	Active Citizenship for Europeans with disabilities – Current knowledge and analytical	7	7
D2.2	Active Citizenship for persons with disability – findings from selection European countries	21	21
D3.1	The feasibility of re-modelling datasets from selected surveys in Czech Republic, Germany, Ireland	7	7
D3.2	Proposal for a set of indicators for Active Citizenship	21	21
D3.3	Active Citizenship impacts and outcomes for Europe	33	-
D3.4	Harmonisation of indicators for Active Citizenship and proposed indicators for monitoring the implementation	33	33
D4.1	Diversity and change of the life courses of persons with psycho-social disabilities	12	12
D4.2	Change and current status in the life course of persons with psycho-social disabilities	21	21
D4.3	Are the assistance and support provided by social services capable of enhancing Active Citizenship	30	30
D5.1	Diversity and change of the employment prospects of persons with disabilities	12	12
D5.2	Diversity and change in the labour market careers of persons with disabilities	21	21
D5.3	How to enhance Active Citizenship for persons with disabilities in Europe through labour market	30	30
D6.1	Comparative analysis of the current state of affairs in community living	12	12

DELIVERABLE NO.	DELIVERABLE NAME	DUE DATE OF DELIVERY (month)	ACTUAL SUBMISSION DATE: (month)
D6.2	Change and diversity in community living in Europe	21	21
D6.3	Transitions from institutions to community living in Europe	30	30
D7.1	Comparative analysis of accessible technology law and policy in Europe	12	12
D7.2	Active Citizenship through the use of new technologies	21	21
D7.3	Best practices in producing accessible technology in Europe: country level examples and EU level	33	33
D8.1	How redistributive cash transfer systems in Europe create poverty traps for persons with disabilities	18	18
D8.2	EU's role as a state party to the UN CRPD, social dialogue mechanisms at European level	24	24
D8.3	Asset-building mechanisms for persons with disabilities in Europe with recommendations for reform	33	33
D9.1	A comparative analysis of disability rights activism – with reference to the concept of Active Citizenship	12	12
D9.2	The internationalisation of disability politics – the new opportunity structure created by UN CRPD	24	24
D9.3	The involvement of DPOs in the implementation of the CRPD – a cross-national comparative study	33	33
D10.1	Summary of the findings of the mid-term workshop with the consortium members	23	23
D10.2	Summary of the findings of the final conference	34	-
D10.3	Report proposing options for policy position by the EU to promote Active Citizenship in Europe	36	-
D10.4	Online dissemination tools	2	2
D10.5	Policy brief 1	7	7
D10.6	Topic specific policy brief I	20	20
D10.7	Policy brief 2	23	23
D10.8	Topic specific policy brief II	32	-

At the stage of the drafting of this case study, no publication seems to have been released.

#### MAIN SOURCES

##### Documentary review:

The eCorda;  
CORDIS database;  
OPENAIRE database;  
DISCIT CONSORTIUM (2012), Annex 1 - Description of Work  
DISCIT CONSORTIUM (2013), Online dissemination tools: website and social media  
<https://blogg.hioa.no/discit>



## **TOWARDS A "TOPOGRAPHY" OF TOLERANCE AND EQUAL RESPECT. A COMPARATIVE STUDY OF POLICIES FOR THE DISTRIBUTION OF PUBLIC SPACES IN CULTURALLY DIVERSE SOCIETIES – "RESPECT"**

**Framework Programme:** FP7 related to SIS  
**Action line/Part:** -  
**Activity:** -  
**Area:** -  
**Dimension:** Governance and scientific advice  
**Tool:** Collaborative project  
**Project Call For Proposal:** FP7-SSH-2009-A  
**Status:** Closed  
**Total cost:** € 1 722 980.40  
**Total EU funding:** € 1 262 933.00  
**Website:** <http://respect.iusspavia.it/> (website does not exist anymore)  
**Period:** 01/01/2010 - 31/12/2011  
**Subjects:** Social Aspects  
**Project ID and Acronym:** ID: 244549, Acronym: RESPECT

### **BACKGROUND AND CONTEXT OF THE PROJECT AND STRATEGIC NEEDS**

Tolerance of different cultures and beliefs has been increasingly invoked as the inspiring ideal of a number of social policies in Europe. In particular appeals to tolerance have animated political debates on policies dedicated to accommodating minorities' requests.

This is especially true regarding policies for the allocation of public space, for instance for Roma sites, the building of mosques, or housing migrants. Such situations can provoke social tensions and further marginalise minorities, who end up being considered a threat to the equality of treatment of all citizens, undermining social cohesion.

From such reflections stems the following question: Does the implementation of tolerance-inspired spatial policies risk undermining the basic democratic commitments to equality and social cohesion? If so, what conception of tolerance may be invoked to limit such a risk?

### **SPECIFIC PROJECT OBJECTIVES**

The RESPECT project aimed to achieve the following objectives:

- **Objective 1:** To advance the 'state of play' in the field of political theory by developing a conceptual taxonomy aimed to clarify and distinguish the concepts of tolerance and equal respect and the grounds of tolerance-inspired spatial policies. The taxonomy thus constructed – including glossaries, conceptual maps and original working papers – should be multidisciplinary.
- **Objective 2:** To study how appeals to tolerance have informed the development of spatial policies in culturally diverse societies. To fulfil this objective direct consultations with relevant Civil Society Organisations (CSOs) operating at a national or local level were planned.
- **Objective 3:** To investigate the influence of local cultural diversities on the inclusion of tolerance in spatial policies enacted in national contexts. For that purpose, a comparison of the policies for the distribution of public spaces across different countries was planned.
- **Objective 4:** To extrapolate from the studies above on the possible connections between tolerance and equal respect, in particular by testing the tenability of the hypothesis that the demands of tolerance should be made compatible with those of equal respect for persons in order to develop, justify and implement spatial policies to accommodate cultural diversity without undermining social cohesion. The results should be used to develop the special key-messages addressed to European and national policy makers in order to address the possible tensions between tolerance and social cohesion in culturally diverse polities.

### **SiS Dimension**

Through its strong focus on societal questions, the RESPECT project corresponded to the FP7-SiS objective of debating on science and technology and their relationship with the whole spectrum of society and culture.

### **Innovation Union objectives**

Through its analysis of societal interactions, tolerance and equal treatment among people, The RESPECT project is directly linked to the Innovation Union's objective of maximising social and territorial cohesion. As it focused on ways to ease cultural tensions among European societies, the project's objectives moreover aimed to pave the way for a better work environment.

### **European Research Area (ERA) objectives**

By mixing researchers from thirteen different countries and studying spatial policies in different countries, the RESPECT project participated in the ERA's objective of increasing transnational co-operation as well as defining and implementing common research agendas on grand challenges.

### **SaS Action Plan**

The project aimed to investigate and compare concepts, policies and practices on tolerance and equal respect. It also aimed at communicating to national and European policy makers on the link between tolerance and social cohesion in culturally diverse polities. Therefore, the project was consistent with Action 36 (Establish guidelines on the use of expertise) of the SaS Action Plan, as it made hypothesis on the use of expertise.

## **PROJECT RESULTS AND OUTCOMES**

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### **Main achievements according to Project objectives**

The RESPECT project achieved the following outputs:

- Concerning objective 1, the project consortium developed a conceptual taxonomy to clarify the concept of tolerance, respect and space taken individually and in their mutual connections. This work was carried out through the review of existing studies and led to the completion of a multidisciplinary thematic bibliography and a collection of investigative works in several European and extra-European languages. The results of this groundwork were presented in a conceptual map including working definitions of the key terms of the research work. Furthermore, articles about accommodation of minorities and the limits of tolerance were published;
- Concerning objective 2, three different sets of case studies were carried out: one about the allocation of public space for building places of worship, notably mosques, one about problems connected to the urban marginalisation and segregation of Roma and other travelling populations and one about housing policies in multi-ethnic cities and the policies for urban regeneration in areas inhabited by minorities. The case studies were carried out in close cooperation with CSOs and the results were discussed at a working seminar and have been disseminated widely through both local and national press;
- Concerning objective 3, comparative papers on the studies developed in objective 2 were produced. The comparative work contributed to the drafting of three comparative overviews on the three families of case studies, whose main role was to provide scientific evidence for the policy briefs. The results of this phase were presented at the workshop 'Respect and tolerance in Europe: a comparative perspective', held at the University of Nicosia.
- Concerning objective 4, papers about the interconnections between toleration and respect and related to different uses of the public space were drafted. Moreover, two book proposals were prepared and successfully submitted to publishers. The final contributions were discussed in the project's final conference, in Pavia. Concerning the dissemination among policy makers and the general public, the consortium also prepared three policy briefs.

On the basis of the collected information, it seems that project objectives were reached. However, it is not possible to state if all foreseen activities were accomplished as the Project Final Report was not available.

### **Main achievements according to SiS Dimensions**

The RESPECT project's results were in line with the Governance and Scientific Advice SiS dimension as they contributed to building an open, effective and democratic European knowledge-based society and stimulate science and research policies. Indeed, the project consortium made its results accessible by different ways: a book, publications, conferences and workshops and policy briefs. In accordance with the SiS dimension, these results fostered pan-European reflections on (social) sciences and their relationships to society and culture.

Moreover, as those dissemination activities were addressed to European and national policymakers, the project helped to foster scientific advice in policymaking and therefore improving European science systems.

However, it does not seem that the project contributed to a better understanding of the place of science and technology in the society, as technological tools or methods were not discussed.

## **DISSEMINATION AND ENGAGEMENT ACTIVITIES AIMED AT TRANSFERRING THE PROJECT RESULTS TO WIDER COMMUNITIES**

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The following dissemination activities were carried out:

- The project website, both in an English and Russian version;
- Diverse events open to the general public to discuss and present the project findings. The most important in terms of public debate were: a workshop on 'Grand mosques, religious freedom and public space' at the

University of Copenhagen, a workshop on 'Respect, tolerance, and space: Social integration guided by the principle of tolerance', a workshop on 'Urban reconstruction, social exclusion and the Roma in Budapest' at the Central European University in Budapest, a workshop on 'The space of respect. Mosques and integration in Italy' at the University of Milan and a panel in the Biannual of Democracy in Turin. The consortium also organised a final conference to present the research's results.

- 3 policy briefs;
- 2 edited books;
- Articles in local and online journals.

While it is hard to assess whether all planned dissemination activities were carried out in the absence of the Project Final Report, there is no evidence that (at least) the following activities were completed:

- Dissemination of links to the website through mailing lists, relevant researchers and local, national and international CSOs;
- Editing of an excerpt of the report as an article, co-authored by the Project Scientific Coordinator and the Objective coordinator, and submitted to an international journal;
- Presentation of outputs and recommendations during a hearing by a relevant commission in the European Parliament;
- Preparation of a flyer with key facts about the project;
- Radio and TV broadcasts.

## PROJECT IMPACTS

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### Potential impact

The potential impacts highlighted by the project consortium were:

- To advance the state of art in the field of toleration, respect and the treatment of minorities in the urban space among European societies and between them and the rest of the world;
- To enhance interdisciplinary cooperation in the researched areas between researchers in Europe and in other regions;
- To involve relevant communities, stakeholders and practitioners in making and diffusing the research's results;
- To improve the formulation, development and implementation of policies;

Potential impacts can be further assessed through the following indicators:

- **Betweenness centrality:** four institutions out of the fourteen participating in the project were in the top 1% most central institutions in FP7. Nine were in the top 5% and eleven in the top 10%.
- **Scientific attractiveness:** Six institutions out of fourteen were ranked in the Leiden university ranking: Pekin University ranked 356<sup>th</sup>, Tel Aviv University ranked 367<sup>th</sup>, the University of Copenhagen ranked 238<sup>th</sup>, the University of Ljubljana ranked 618<sup>th</sup>, the university of Pavia ranked 165<sup>th</sup> and the University of Rennes 1 ranked 502<sup>th</sup>.
- **Business attractiveness:** No participants from RESPECT were ranked amongst the biggest R&D investors having participated in SiS. This can notably be explained by the fact that participants were mainly universities and research institutes.

### Actual impact

The actual impact of RESPECT can be clustered into four types:

- **Scientific impact:** a number of articles in local and online journals were published, including in the European Journal of Political Theory, the European Journal of Philosophy, the journal 'Politics in Central Europe', the Journal of Applied Philosophy, the Russian Journal of Sociology and Social Anthropology and the Journal of Urban Affairs. Two books were edited: *How groups matter. Challenges of toleration in pluralistic societies*, a collection of essays edited by Routledge, and *Space and Pluralism*, a collection of essays edited by the central European university press.
- **Social Media impacts** between 2010 and 2013, 6 posts were found referring to the RESPECT project, suggesting a very limited social media visibility and impact.
- **Institutional and organisational impact:** the project did not result in the creation of institutions, bodies or networks.

- **Policy impact:** as the consortium devised 3 policy briefs, it is possible that it influenced policy makers at a national or European level.

## EU ADDED VALUE OF THE PROJECT

Having the project funded by EU programmes enabled the beneficiaries to do research on a European level and to benefit from the knowledge of different European leading institutions. Indeed, thanks to its European dimension, the consortium was able to develop case studies all around Europe and establish comparative analyses. Furthermore it expanded the project's scope and the exchange of knowledge among Member States as results were presented in several conferences in different European countries and in different languages.

## PARTICIPANTS AND RESEARCH TEAM

### Participants

Number of participants: 14

Number of countries involved: 13

	Type	Country	Role	Previous participations in FP
ISTITUTO UNIVERSITARIO DI STUDI SUPERIORI DI PAVIA	HES	IT	Coordinator	4
KOBENHAVNS UNIVERSITET	HES	DK	Participant	397
TECHNISCHE UNIVERSITAET DARMSTADT	HES	DE	Participant	110
UNIVERZA V LJUBLJANI	HES	SI	Participant	159
UNIVERSITA DEGLI STUDI DEL PIEMONTE ORIENTALE AMEDEO AVOGADRO	HES	IT	Participant	27
TEL AVIV UNIVERSITY	HES	IL	Participant	212
UNIVERSITE DE RENNES I	HES	FR	Participant	43
ZAPADOCESKA UNIVERZITA V PLZNI	HES	CZ	Participant	11
PEKING UNIVERSITY	HES	CN	Participant	18
KOZEP-EUROPAI EGYETEM	HES	HU	Participant	62
UNIVERSITY OF WALES NEWPORT	HES	GB	Participant	2
CYPRUS CENTER FOR EUROPEAN AND INTERNATIONAL AFFAIRS	REC	CY	Participant	2
EUROPEAN HUMANITIES UNIVERSITY	HES	LT	Participant	1
FEDERAL STATE AUTONOMOUS EDUCATIONAL INSTITUTION OF HIGHER PROFESSIONAL EDUCATION "URAL FEDERAL UNIVERSITY NAMED AFTER THE FIRST PRESIDENT OF RUSSIA B.N.YELTSIN"	HES	RU	Participant	2

### Team Composition

Team Size: 65 members\*

GENDER				
Female		Male		Unknown
34%		66%		0%
SENIORITY				
Average		Junior		Senior
14%		6%		80%
PhD				
No		Yes		
9%		91%		
BACKGROUND				
Applied Sciences	Health Sciences	Humanities & Social Sciences	Natural Sciences	Unknown
0%	0%	94%	0%	6%

*\*The data are based on the analysis of the provided project's Description of Work.*

## DELIVERABLES AND PUBLICATIONS

### Project deliverables

DELIVERABLE NO.	DELIVERABLE NAME	DUE DATE OF DELIVERY (month)	ACTUAL SUBMISSION DATE: (month)
D1	Multidisciplinary thematic bibliography on the topics of tolerance and equal respect (with special emphasis on spatial issues).	2	2
D2	Conceptual taxonomy including glossaries and conceptual maps.	5	9
D3	Project website (in English and Russian), including the "project at a glance". Flyers will also be realised.	3	3
D4	Preparation of a proposal for a special issue of the European Journal of Philosophy.	6	6
D5	Case studies on policies for the distribution of public spaces.	12	14
D6	Special issue of the Czech journal Politics in Central Europe.	12	14
D7	Completion of the intermediate activities and management reports.	12	-
D8	Comparative papers.	17	21
D9	Comparative synopsis.	18	-
D10	Intermediate European Policy Brief.	18	-
D11	Documents summarising country-based key messages for national policy-makers and civil society actors.	22	-
D12	Final European Policy Brief.	24	24
D13	Scientific publications (proposals for journal special issues)	23	23
D14	Final international conference.	23	24
D15	Book proposals	24	24
D16	Final Management and Activities Reports and of the plan for the use and dissemination of foreground.	24	-
D17	Report on Awareness and Wider Societal Implications of the Project	24	-

### Related publications

PUBLICATION TITLE	Number of citations
<i>Special issue of the journal 'Politics in Central Europe' (deliverable 7.1): 'Dealing with minorities: integration, tolerance and the risks of segregation'.</i>	-
<i>Special issue of the Journal of Applied Philosophy (deliverable 12.1): 'Toleration and respect'.</i>	-
<i>Special issue of the Russian Journal of Sociology and Social Anthropology (deliverable 12.2): 'Toleration and respect'.</i>	-
<i>Special issue of the Journal of Urban Affairs on space and pluralism (deliverable 12.3).</i>	-
<i>Edited collection of essays submitted to the Routledge studies in social and political thought, Routledge (deliverable 14.1).</i>	-
<i>Edited collection of essays submitted to the central European university press (deliverable 14.2).</i>	-

These papers were drafted to be included in special issues and other individual papers were submitted and published in international and national journals.

### MAIN SOURCES

RESPECT Description of Works  
RESPECT Result In Brief  
RESPECT final Report Summary

## **ARCTIC CLIMATE CHANGE, ECONOMY AND SOCIETY – "ACCESS"**

**Framework Programme: FP7 related to SIS**  
**Action line/Part: -**  
**Activity: -**  
**Area: -**  
**Dimension: Governance and Scientific Advice**  
**Tool: Collaborative project**  
**Project Call For Proposal: FP7-OCEAN-2010**  
**Status: Closed**  
**Total cost: € 14 861 574**  
**Total EU funding: € 10 978 468**  
**Website: <http://www.access-eu.org/>**  
**Period: 01/03/2011 - 28/02/2015**  
**Subjects: Environmental Protection**  
**Project ID and Acronym: 265863 - ACCESS**

### **BACKGROUND AND CONTEXT OF THE PROJECT AND STRATEGIC NEEDS**

A previously largely inaccessible ocean is opening up to commercial and recreational activities. The retreat of sea ice in the Arctic Ocean promises economic benefits but at the same time represents the development of manmade climate change which is especially pronounced at high northern latitudes. Economic opportunities and environmental risks characterise the opposing forces that the Arctic nations and the global community of states face in the Arctic.

Allowing the unregulated exploitation of Arctic resources, limitless development, and the consequential environmental damage is not an option for the relatively untouched Arctic region. However, severe restrictions on commercial development and tourism, may also seem unrealistic considering the unprecedented opportunities which could develop with climate change.

### **SPECIFIC PROJECT OBJECTIVES**

#### **Project objectives:**

The ACCESS project aimed at better understanding environmental changes in the Arctic and at quantifying the impact of climate change in key economic sectors using an integrated and trans-sectoral approach. Based on this understanding, the project identified the future potential to assess the related risk and opportunities in a broader context and to provide a foundation for the sustainable development of economic activities with a minimal impact on this sensitive environment.

Therefore, the general objectives of ACCESS for quantifying climate change impacts on economic sectors in the Arctic were:

- **Objective 1:** To improve understanding and the predictive capacity of how Arctic climate and Arctic marine ecosystems respond to a combination of natural and anthropogenic factors.
- **Objective 2:** To improve understanding of how rapid environmental changes might affect human activity in the arctic and impact on sectors and regions.
- **Objective 3:** To evaluate which risks to humans and the environment at large will result from expected economic changes and which measures could be developed to address these risks.

#### **Programme objectives**

The objective of ACCESS was to better understand environmental changes in the Arctic and to quantify the impact of climate change. The objectives of ACCESS were thus consistent with the SiS objective of a broader engagement to anticipate and clarify political, societal and ethical issues.

#### **Innovation Union Objectives**

Increasing social benefits is an objective of the Innovation Union. In that respect, ACCESS's purpose was consistent with the Innovation Union objectives as it aimed to better understand environmental changes in the Arctic and to quantify the impact of climate change with an impact on society.

#### **European Research Area Objectives**

Optimal access to scientific knowledge is an objective of ERA. In that respect, ACCESS's purpose was consistent with ERA objectives as it aimed to better understand environmental changes in the Arctic and to quantify the impact of climate change.

#### **SaS Action Plan**

The project was in line with the following actions of the SaS Action Plan:

- Action 35, as it aimed to improve practices in risk governance in relation to environmental issues;
- Action 36, as, even if it did not establish guidelines, the project aimed to transmit knowledge and expertise to address environmental issues.

Moreover, it can be assessed that the project was also in line with Action 38 and indirectly contributed to the setting up of the European Common Scientific Reference Systems, because it aimed to provide validated data in support of policymaking.

## **PROJECT RESULTS AND OUTCOMES**

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### **Main achievements according to Project outcomes**

The ACCESS project met its objectives and was considered to be a success:

- Concerning **objective 1**, ACCESS explored the actual climate variability of the Arctic Ocean: profound and significant changes were observed at the planetary scale. Interactions between the Arctic Ocean, the Arctic Atmosphere and the Arctic Sea-Ice were investigated, based both on new and traditional observations and on models, in order to establish reliable predictions for the next 30 years. 22 deliverables were submitted to the European Commission. ACCESS deepened the understanding of the impacts of climate change on the biophysical components of the Arctic system and more specifically on Arctic sea ice.
- Concerning **objective 2**, ACCESS explored three major domains of human activities in the Arctic impacted by climate change:
  - Marine transportation across the Arctic Ocean, including transportation of goods from East to West and West to East, exportation of Arctic mineral resources (oil & gas) and living resources (seafood) and Arctic tourism transporting passengers: 25 deliverables were submitted to the EU Commission.
  - Arctic seafood production, involving fisheries and aquaculture in a local, regional and global context impacted by global changes: 12 deliverables were submitted to the EU Commission.
  - Offshore extraction of oil & gas, pollution and protection of the marine environment: 21 deliverables were submitted to the EU Commission.
- Concerning **objective 3**, ACCESS dedicated much attention to management and governance related to economical, geopolitical and cultural relevant issues in each of the specific domains of human activities mentioned above. 11 deliverables were submitted to the European Commission. New tools were produced in this context to help not only for the synthesis and integration of ACCESS results but also for future applications dealing with Arctic issues similar to those explored during the ACCESS project.

In conclusion, all planned objectives were achieved. On the basis of the collected documentation, missing activities were not detected.

### **Main achievements according to Programme objectives**

As stated in the project objectives section and confirmed by a review of project deliverables, the ACCESS project results were in line with the SiS objective of a broader engagement to anticipate and clarify political, societal and ethical issues.

### **Main achievements according to SiS Dimensions**

The ACCESS project was in line with the Governance and Scientific Advice SiS dimension as it contributed to anticipate and clarify political, societal and ethical issues in the Arctic. Moreover, the project helped to strengthen and improve European science systems in the environmental fields, by fostering the uptake of scientific advice in policymaking and improving the understanding of the place of science and technology in society.

## **DISSEMINATION AND ENGAGEMENT ACTIVITIES AIMED AT TRANSFERRING THE PROJECT RESULTS TO WIDER COMMUNITIES**

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ACCESS communications, dissemination and outreach activities were exemplified by 27 deliverables related to ACCESS newsletters (11), ACCESS Policy Briefs (4), ACCESS summer schools (2).

ACCESS partners also participated actively to conferences (including press conferences during the four annual ACCESS General Assemblies) and international meetings of importance such as the Arctic Science Summit Week (ASSW), the Arctic Frontiers, the Arctic Circle conference, the Arctic Observing Summit (AOS), the Sustainable Arctic Observing Network SAON and other Arctic Council working groups and task forces (AMAP/ACAA). Workshops were organized and a project website was developed. However, there is no evidence that videos and movies foreseen in the DoW were produced.



## PROJECT IMPACTS

Potential impact of the project:

- **Institutional and organisational impact:** A critical assessment of the relevant regulatory systems and legislation was expected to be produced regarding their strengths and weaknesses as they might respond to climate change. The specific sectors of maritime shipping, fisheries and oil and gas extraction were expected to be assessed for shortfalls in regulation, conflict and lacunae.
- **Policy impact:** Governance options and elements of strategic policy were expected to be provided in line with future sustainable development of the Arctic and its resources.
- **Betweenness centrality:** Seven participants out of twenty-eight were included in the top 1% in terms of centrality of the "Cooperation" network in FP7.
- **Scientific attractiveness:** The only ranked university participating in the project was the UNIVERSITY OF CAMBRIDGE (61<sup>st</sup>).
- **Business attractiveness:** No highly ranked R&D investors participated in the project.

The **Actual impact** be clustered into four types:

- **Scientific impact:** Eight publications (see details in the publications section below) resulted in a total amount of 242 citations.
- **Social Media impact:** 102 posts related to ACCESS were accounted. Most conversations were held in blogs (81%).
- **Institutional and organisational impact:** ACCESS selected 9 overall challenges issued from the project's results, among which Arctic Shipping, Arctic seafood production. Oil & Gas and Infrastructures. ACCESS may have an impact on the future of those businesses in the Arctic.
- **Policy impact:** Climate change, the Polar Code, Indigenous Peoples and Arctic resources are key issues which have to be dealt with a European and worldwide policy. Results and recommendations from the project may have an impact on future policy-making in the Arctic.

## EU ADDED VALUE OF THE PROJECT

Funding the ACCESS project at EU-level was considered pertinent since the goal of the project was to bring together European participants in order to anticipate and clarify political, societal and ethical issues in the Arctic.

By working at a European scale, it was possible to share available knowledge, to create a long-lasting network between research teams, to cover more research topics during the project and to avoid duplication of efforts, and finally to benefit from a wider perspective for the production of guidelines and recommendations as well as ensuring a more efficient dissemination of results through participants' respective networks.

## PARTICIPANTS AND RESEARCH TEAM

### Participants

Number of participants: 28

Number of countries involved: 10

	Type	Country	Role	Previous participations in FP
UNIVERSITE PIERRE ET MARIE CURIE - PARIS 6	HES	FR	Coordinator	156
NATURAL ENVIRONMENT RESEARCH COUNCIL	REC	GB	Participant	148
DEUTSCHES ZENTRUM FUER LUFT - UND RAUMFAHRT EV	REC	DE	Participant	430
STIFTELSEN SINTEF	REC	NO	Participant	204
THE CHANCELLOR, MASTERS AND SCHOLARS OF THE UNIVERSITY OF CAMBRIDGE	HES	GB	Participant	737
UNIVERSITAT POLITECNICA DE CATALUNYA	HES	ES	Participant	172
SINTEF FISKERI OG HAVBRUK AS	REC	NO	Participant	7
ARCTIC AND ANTARCTIC RESEARCH INSTITUTE	REC	RU	Participant	4
THE SCOTTISH ASSOCIATION FOR MARINESCIENCE LBG	REC	GB	Participant	24
METEOROLOGISK INSTITUTT	REC	NO	Participant	28
ALFRED-WEGENER-INSTITUT HELMHOLTZ-ZENTRUM FUER POLAR- UND MEERESFORSCHUNG	REC	DE	Participant	52



	Type	Country	Role	Previous participations in FP
ECONOMIC AND SOCIAL RESEARCH INSTITUTE	REC	IE	Participant	7
KUNGLIGA VETENSKAPSAKADEMIEN	REC	SE	Participant	6
NORSK POLARINSTITUTT	REC	NO	Participant	8
P.P. SHIRSHOV INSTITUTE OF OCEANOLOGY OF RUSSIAN ACADEMY OF SCIENCES	HES	RU	Participant	11
LAPIN YLIOPISTO	HES	FI	Participant	5
CICERO SENTER KLIMAFORSKNING STIFTELSE	REC	NO	Participant	7
NOFIMA AS	REC	NO	Participant	6
O.A. SYS - OCEAN ATMOSPHERE SYSTEMS GMBH	PRC	DE	Participant	3
HAMBURGISCHE SCHIFFBAU-VERSUCHSANSTALT GMBH	REC	DE	Participant	12
INSTITUT FUER WELTWIRTSCHAFT	REC	DE	Participant	8
FASTOPT GMBH	PRC	DE	Participant	3
IMPAC OFFSHORE ENGINEERING GMBH	PRC	DE	Participant	1
SCHWARZ JOACHIM REINHOLD FRANZ	PRC	DE	Participant	1
GESELLSCHAFT ZUR FORDERUNG DES ENERGIEWIRTSCHAFTLICHEN INSTITUTS AN DER UNIVERSITAT ZU KOLN GGMBH - EWI	REC	DE	Participant	1
LE CERCLE POLAIRE ASSOCIATION	OTH	FR	Participant	1
BELUGA SHIPPING GMBH	PRC	DE	Participant	1
NORDIC BULK CARRIERS AS	PRC	DK	Participant	1

### Team Composition

Team Size: 96 members

GENDER				
Female		Male		Unknown
19%		73%		8%
SENIORITY				
Average		Junior		Senior
6%		12%		82%
PhD				
No			Yes	
34%			66%	
BACKGROUND				
Applied Sciences	Health Sciences	Humanities & Social Sciences	Natural Sciences	Unknown
11%	2%	26%	57%	3%

\*The data are based on the analysis of the provided project's Description of Work.

### DELIVERABLES AND PUBLICATIONS

#### Deliverables

As the number of deliverables is very large (approximately 150 deliverables listed in the DoW), we invite the reader to consult the project's website where deliverables are listed by Work Package. Dates of actual delivery was not made available.

#### Related publications

PUBLICATION TITLE	Number of citations
<i>A comparison between gradient descent and stochastic approaches for parameter optimization of a sea ice model</i>	7
<i>An intercomparison of Arctic ice drift products to deduce uncertainty estimates</i>	11

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<i>PUBLICATION TITLE</i>	<i>Number of citations</i>
<i>Energy budget of first-year Arctic sea ice in advanced stages of melt</i>	31
<i>Environmental impacts of shipping in 2030 with a particular focus on the Arctic region</i>	17
<i>Pollution transport from North America to Greenland during summer 2008</i>	13
<i>Quantifying emerging local anthropogenic emissions in the Arctic region: the ACCESS aircraft campaign experiment</i>	10
<i>The Norwegian Earth System Model, NorESM1-M - Part 1: Description and basic evaluation of the physical climate</i>	125
<i>Wave buoy measurements at the Antarctic sea ice edge compared with an enhanced ECMWF WAM: Progress towards global waves-in-ice modelling</i>	28

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**MAIN SOURCES**

ACCESS Description of Work  
ACCESS Final report

## **THE CAPACITY OF CIVIL SOCIETY ORGANISATIONS (CSO) AND THEIR NETWORKS IN COMMUNITY BASED ENVIRONMENTAL MANAGEMENT - "CIVI.NET"**

**Framework Programme: FP7 related to SIS**  
**Dimension: Government and Scientific Advice**  
**Tool: Research for the benefit of specific groups**  
**Project Call For Proposal: FP7-ENV-2011**  
**Status: Closed**  
**Total cost: € 2.245.360,00**  
**Total EU funding: € 1.846.660,00**  
**Website: <http://www.civinet.eu/english>**  
**Period: 01/10/2011 – 30/09/2014**  
**Subjects: Environmental Protection**  
**Project ID and Acronym: ID: 282750 CIVI.NET**

### **BACKGROUND AND CONTEXT OF THE PROJECT AND STRATEGIC NEEDS**

The wellbeing of humans depends on the variety of natural resources and the services they provide. Natural resources (ecosystem goods) and their services can be defined as Ecosystem Services (ES) (MEA 2005). Ecosystem services are needed for nearly all human activities. At the same time, human activities influence and change the provision of ES and often cause environmental problems such as loss of biodiversity and climate change. The interconnections between the two complex systems – the environmental and the social-economic system – have to be considered if one tries to govern the development in a concerted manner.

### **SPECIFIC PROJECT OBJECTIVES**

#### **Project objectives**

The CIVI.net project aimed to **analyse, transfer and disseminate successful and sustainable community based solutions with regard to ecosystem service management in Latin America**. The project took an action research and case study approach. The project chose four case study regions in Brazil and Costa where successful solutions were applied. Based on the findings, the CIVI.net project aimed to facilitate the transfer of successful solutions to at least one other community for each selected case study region confronted with similar environmental challenges.

The project design of CIVI.net was structured in three parts with the following corresponding objectives:

- **Analysis** which aimed to identify communities where successful solutions for the management of natural resources have been developed and to analyse these solutions with respect to their instruments and governance models;
- **Action (transfer)** which aimed to investigate the possible transfer and implementation potential of these solution strategies to other communities that are confronted with the same challenges;
- **Dissemination** which aimed to spread knowledge about how this transfer could be organised and what factors had to be taken into consideration to make the transfer successful.

#### **SiS dimension objectives**

The CIVI.net project was designed to facilitate the transfer of successful and sustainable community based solutions. In that respect, the project's objective was consistent with the purpose of the government and scientific dimension that consisted in putting research at the heart of the society and in the policy-making process.

#### **Innovation Union objectives**

By aiming to analyse, transfer and disseminate successful and sustainable community based solutions with regard to ecosystem service management in Latin America, the CIVI.net project was in line with the first intermediate objective of the Innovation Union namely "*strengthening the knowledge base and reducing fragmentation*".

#### **European Research Area (ERA) objectives**

The conduct of the CIVI.net project related to the transfer and dissemination of sustainable community based solutions. The project contributed therefore to an "*optimal circulation, access to and transfer of scientific knowledge including via digital ERA*" (fifth ERA priority).

#### **SaS Action Plan**

The project was consistent with the SaS Action Plan and in particular:

- Action 28 ensuring coordination of prospective activity at the European level, as it aimed to transfer identified solutions to other communities facing similar environmental problems and indeed created a constructive network;

Action 35 aiming to improve practices in risk governance through networking, as transferability studies on the possibility to apply identified solutions to other communities with similar environmental problems constituted a way towards policy improvement in challenging sectors.

## **PROJECT RESULTS AND OUTCOMES**

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### **Main achievements according to project objectives**

**The CIVI.net project provided comprehensive analysis** with regard to the effectiveness and efficiency of the employed management instruments, the types of original rules, institutional arrangements and governance models that have been established, and specifically, the capacity that CSOs put in the development of the solution strategies.

Based on this analysis, **the CIVI.net project facilitated the transfer of these successful solutions to other communities confronted with similar environmental challenges** together with the local stakeholders in the different communities.

Finally, **the CIVI.net project disseminated its findings to a broad audience** in order to make the knowledge developed available for specific groups, such as local stakeholders, CSOs, the scientific community, policy decision makers, but also to the general public to inform public debate.

Globally on the basis of the Project Final Report, it seems that most of the activities were carried out. However, although it does not mean that they did not take place, there is no evidence that the two following activities planned in the DoW were completed:

- Task 3.5: Test the user adequacy for the project's data management instruments;
- Task 6.6: Development of a communication framework for CSOs for the transfer and relocation of management instruments, practices and tools to local partner stakeholders and organisations.

### **Main achievements according to SiS Dimensions**

Based on a comprehensive analysis, the CIVI.net project facilitated the transfer and dissemination of its findings to a broad audience including policy decision makers, the scientific community, etc. Moreover, through the utilisation of compatibility research studies to transfer environmental solutions between countries facing similar contexts, the project helped to understand the place and potential of science and technology in the society. The project was therefore deemed successful in contributing to the objectives of the SiS Government and Scientific Advice dimension. However, it does not seem that the project strengthened and improved the European science system, as it focused on Latin America countries.

## **DISSEMINATION AND ENGAGEMENT ACTIVITIES AIMED AT TRANSFERRING THE PROJECT RESULTS TO WIDER COMMUNITIES**

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Dissemination activities constituted a core part of the CIVI.net project. In this phase, the CIVI.net project distributed the produced "practical and scientific knowledge" amongst a wide audience.

The CIVI.net dissemination strategy was designed to address five different user groups:

- Local stakeholders at community level;
- Civil society organisations (CSOs);
- The scientific community;
- Policy decision makers;
- The general public.

To reach those user groups, the CIVI.net produced a variety of products for dissemination purposes, supported by a communication and dissemination strategy:

- Materials in writing including project brochure, case study fact sheets, posters, newsletters, flyers, press releases, conferences, oral presentations, etc.
- Video and audio materials, such as participatory movies;
- Events, such as workshops, meeting and press conferences;
- Trainings and capacity buildings;
- Publication of articles in the popular press,

- Interactive project website in English, Spanish and Portuguese and a user manual.

On the basis of the Project Final Report, no unachieved activities could be identified.

## PROJECT IMPACTS

### Potential impacts

The project was designed to improve and promote “local sustainable economic governance of natural resources” at the community level through “identification and implementation of means to prevent and resolve local tensions arising from the new repartition and use of natural resources”.

The project’s potential impact can be further assessed through the following indicators:

- **Betweenness centrality:** The project only had two participating organisations that were amongst the most central FP7 participants.
- **Scientific attractiveness:** No CIVI.net project participant was ranked in the Leiden University ranking.
- **Business attractiveness:** The CIVI.net project had no participant ranked as one of the biggest R&D investors amongst SiS participants.

### Actual impacts

Beyond expectations, the actual impacts can be classified into the following categories:

- **Scientific impact:** The project resulted in the release of two publications of which one was quoted once in an academic article. This suggests a weak impact from a scientific point of view;
- **Institutional and organisational impact:** Transfer and dissemination of successful community based solutions of global issues such as forest protection and climate change were supposed to have an impact on the institutions and organisations. However, no related data seems to be available to assess the institutional and organisational impact.
- **Policy impact:** Policy-makers were among the target groups of the CIVI.net project. However, no information is provided on whether policy-makers used solutions provided by the project.
- **Social media impact:** Between October 2011 and March 2016, the CIVI.net project recorded seven posts and suggest therefore a weak social media impact.

## BEST PRACTICES

The development of participatory movies by local communities could be assessed as a best practice. In fact, as stated in the Project Final Report, the movies were produced to illustrate the local problem-based solutions and facilitated communication and mutual learning between different stakeholders in an innovative way.

## EU ADDED VALUE OF THE PROJECT

As outlined in the Description of Work for the project, the EU has formed alliances with other countries for research and has created cooperation with other countries and regions including Latin America. Due to the EU’s important role in relation to research on environmental matters, an EU project was considered as pertinent and as providing added value which could not have been achieved by a Member State acting alone.

## PARTICIPANTS AND RESEARCH TEAM

### Participants

Number of participants: 7

Number of countries involved: 6

	Type	Country	Role	Previous participations to FP
LEIBNIZ-ZENTRUM FUER AGRARLANDSCHAFTSFORSCHUNG (ZALF) e.V.	REC	DE	Coordinator	14
EIDGENOESSISCHE TECHNISCHE HOCHSCHULE ZUERICH	HES	CH	Participant	562
ORGANISATION FOR INTERNATIONAL DIALOGUE AND CONFLICT MANAGEMENT	REC	AT	Participant	3
FUNDAÇÃO DE APOIO A PESQUISA AGRÍCOLA*FUNDAG FOUNDATION OF AGRICULTURAL RESEARCH SUPPORT	REC	BR	Participant	2

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	Type	Country	Role	Previous participations to FP
FUNDACION NEOTROPICA	REC	CR	Participant	1
STICHTING VOOR DUURZAME ONTWIKKELING	REC	NL	Participant	1
INSTITUTO ECOLOGICA PALMAS ASSOCIACAO	REC	BR	Participant	1

No publication seems to have been published.

### Team Composition

Team Size: members\*

GENDER				
Female		Male		Unknown
35%		65%		0%
SENIORITY				
Average		Junior		Senior
17%		22%		61%
PhD				
No		Yes		
39%		61%		
BACKGROUND				
Applied Sciences	Health Sciences	Humanities & Social Sciences	Natural Sciences	Unknown
0%	0%	74%	13%	0%

\*The data are based on the analysis of the provided project's Description of Work.

### DELIVERABLES AND PUBLICATIONS

DELIVERABLE NO.	DELIVERABLE NAME	DUE DATE OF DELIVERY (month)	ACTUAL SUBMISSION DATE: (month)
D1.1	Minutes kick-off meeting	9	18

### MAIN SOURCES

Documentary review:  
The eCorda;  
CORDIS database;  
OPENAIRE database;  
CIVI.net CONSORTIUM (2011), Annex 1 - Description of Work  
CIVI.net CONSORTIUM (2014), Final report

## **STRATEGIES FOR IMPROVING COMMUNICATION BETWEEN SOCIAL AND CONSUMER SCIENTISTS, FOOD TECHNOLOGY DEVELOPERS AND CONSUMERS - "CONNECT4ACTION"**

**Framework Programme:** FP7 related to SiS

**Action line/Part:** -

**Activity:** -

**Area:** -

**Dimension:** GOVERNANCE AND SCIENTIFIC ADVICE

**Tool:** Coordination and support action

**Project Call For Proposal:** FP7-KBBE-2011-5

**Status:** Closed

**Total cost:** € 1 208 287.80

**Total EU funding:** € 994 211.00

**Website:** <http://www.connect4action.eu/>

**Period:** 01/12/2011 – 30/11/2014

**Subjects:** Food

**Project ID and Acronym:** 289023 CONNECT4ACTION

### **BACKGROUND AND CONTEXT OF THE PROJECT AND STRATEGIC NEEDS**

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Despite developments in technology, product design and marketing, most new products are not successfully commercialised. Research into new product introductions in the retail grocery industry suggests that the failure rate for new product introduction in this field is as high as 70-80%. Some recent examples of food innovations that were publically rejected in Europe have included food irradiation and genetically modified food. Failed innovation is not only a waste of investment, but also often a missed opportunity to contribute to solve societal problems such as health and environmental issues.

In addition, innovation success is also of relevance for the food industry in Europe that copes with strong competition from emerging global economies. Given the fact that the success of innovation depends on consumers accepting novel products, it is important to identify the needs and preference of consumers. These needs and preferences should be reflected in the development and commercialisation of new food technologies.

### **SPECIFIC PROJECT OBJECTIVES**

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The overall objective of the CONNECT4ACTION project was to improve communication between consumers, consumer scientists, food technology developers and other key players in order to improve the success of food technology development and commercialisation in Europe.

The project intended to be a showcase of improved communication for all key players. By connecting key players in the food technology development process within the project, making them interact at all stages of the project and providing them with communication tools, this project aimed to exemplify improved communication and provide key players with possibilities to improve their way of working.

The specific objectives of the CONNECT4ACTION project were the following:

- **To connect and engage stakeholders** who have an active interest in enhancing internal and external communication to improve the success of the (food) technology development and commercialisation process.
- **To identify success factors**, and potential barriers, **from scientific findings** that underlie improved communication at various stages of the food technology development and commercialisation process.
- **To identify potential barriers** and success factors, **from stakeholder experiences** that underlie improved communication at various stages of the food technology development and commercialisation process;
- **To conceptualise improved communication** into a framework for internal and external communication at the three different stages (generating, dissemination and responsiveness) of food technology development and commercialisation;
- **To develop a toolbox** that enables interested stakeholders at various stages of the food technology development and commercialisation process to improve and plan their communication strategies;
- **To disseminate project results** by spreading project approaches, collected data and outcomes to key players during the project.

### **SiS dimensions**

The CONNECT4ACTION project was consistent with the SiS governance and scientific advice dimension. The project consisted in improving communication in the agro-food sector to improve the success of food technology development and commercialisation in Europe.

### **Innovation Union objectives**

Since the project aimed to connect and engage stakeholders in order to improve communication between consumers, consumer scientists, food technology developers and other key players at European level, it also aimed at reducing fragmentation and strengthening the knowledge base, thus complying with one of the main Innovation Union objectives.

### **European Research Area (ERA) objectives**

The CONNECT4ACTION project's main goal was to improve communication between consumers, consumer scientists, food technology developers and other key players in order to improve the success of food technology development. In that respect, the project was in line with the ERA's objective of building more effective national research systems.

### **SaS Action Plan**

The project was in line with the SaS Action plan and in particular with:

- Action 36, aiming at establishing guidelines on the use of expertise. In fact, the project developed tools and delivered trainings to ensure knowledge transmission in the field of food technology and communication.
- Action 37, aiming at creating Internet based networks of scientists. In fact, the project created relations and led dialogues amongst different stakeholders including scientists through online tools.

Moreover, the project was also indirectly in line with Action 38, aiming at setting up a European Common Scientific Reference Systems. In fact, it developed a community of stakeholders aiming to improve food technology and communication in Europe.

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## **PROJECT RESULTS AND OUTCOMES**

### **Main achievements according to Project objectives**

On the basis of the Final Report Summary, The implementation of the CONNECT4ACTION led to the following outcomes:

- A community of interested stakeholders, called the online CONNECT4ACTION community and who actively wish to be involved in the project, was established. Stakeholders were approached via the professional networks of the project partners.
- Several times, social media like twitter were used to promote the project results. For example, stakeholders were asked to intervene in fora and discuss about project outcomes. Stakeholders received access to the newest information, tools and trainings to improve their communication. Activities in this work package stimulated interested stakeholders included in the community to engage in online community activities: active online discussion and information exchange were promoted via fora and Wikipedia-type digital share points.
- Main success factors and barriers related to communication on food technology were identified, through two reviews of scientific literature (work package 2) and surveys, following which a communication strategy was designed (work package 3).
- Stakeholders developed and evaluated the framework for improved communication (work package 4).
- A toolbox with eight different tools (although only three were planned) and two training programmes (one for young researchers and PHD students and the other for food industry professionals) were developed (work package 5).
- Dissemination and communication activities as described in the section below were realised and stakeholders provided advice regarding the use of the tools being developed at the end of the project (work package 6).

On the basis of the Final Report Summary, it seems that all specific objectives planned in the DoW were reached and no missing activities could be detected.

### **Main achievements according to SiS Dimensions**

Since the project created a stakeholders' community, whose participants were asked about the project outcomes at various stages of the project, CONNECT4ACTION can be considered to have contributed to building an open, effective and democratic European knowledge society, which was one of the objectives of the governance and Scientific Advice dimension of FP7.

Moreover, the development of a network to exchange on communication related to food technology improved the European science systems and increased the understanding of the place of science and technology in society.



Finally, exchanges between different stakeholders also included policy makers. Therefore, the project contributed to the deployment of scientific advice in the development of future policies.

### **DISSEMINATION AND ENGAGEMENT ACTIVITIES AIMED AT TRANSFERRING THE PROJECT RESULTS TO WIDER COMMUNITIES**

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Project partners specified in their "Description of Work" that dissemination is a critical component of the project, and that all consortium will be active in the dissemination process. Dissemination were planned to occur throughout the project and through a range of activities:

- **Development of a project logo** used in all communication materials produced by the consortium to help raise awareness;
- **Launch of a project website and extranet:** The website described the project objectives and phases including details of partners, objectives, work areas, main results, publications and links to other projects. The extranet provided the main information source needed for the project;
- **Establishment of a project community:** Due to the development of the internal and external website, an online community of more than 50 members from all the EU were started and activated. Active online discussion and information exchange were promoted via for a and wiki-type of digital interactive sharing points;
- **Publication of periodical articles:** Seven articles and three papers were published;
- **Creation of leaflets:** One presenting in clear and simple language the main elements of the project and the other summarizing project achievements;
- **Creation of podcasts, webinars and workshops** to discuss and disseminate project results;
- **Elaboration of project tools and training:** The planning and development of training activities based on tools produced within the project are especially relevant to improve the external and internal communication within the food technology development and commercialization process;
- Development of a "**Connect4Action embassy**" to ensure a continuous dialogue.

In the Deliverable 6.3 "Strategies for improving communication between social and consumer scientists, food technology developers and consumers", only dissemination activities foreseen in the WP6 were reported:

- A joint final conference was held, including a workshop;
- A specific section about the project was inserted on the multilingual website ;
- Videos, a webinar and three podcasts were produced.

However, there is no evidence that the other dissemination activities were not carried out.

### **PROJECT IMPACTS**

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#### **Potential impact**

The activities in the CONNECT4ACTION project were focused on improving communication and knowledge exchange between food technologists and consumer scientists, with respect to their knowledge on the interaction between food technology development and commercialisation. According to project partners, working on strategies for improving communication between social and consumer scientists, food technology developers and consumers could be expected to have an impact on the agro-food knowledge (early identification of issues, improved means of informing food technologists), on the sector (higher competitiveness of the European agro-food and food machinery industry), and on European and national policy makers.

Potential impacts can be further assessed through the following indicators:

- **Betweenness centrality:** Seven institutions out of the eleven participating in the project were in the top 1% most central institutions in FP7. Eight were in the top 5% and ten in the top 10%;
- **Scientific attractiveness:** Among the eleven institutions involved in the CONNECT4ACTION project, two appeared in the Leiden university ranking: the Aarhus University ranked 170<sup>th</sup>, and the Wageningen University ranked 251<sup>th</sup>;
- **Business attractiveness:** No participants from PACT were ranked amongst the biggest R&D investors having participated in SiS. This can notably be explained by the fact that participants were mainly universities and research institutes.

#### **Actual impact**

Beyond the expectations, the actual impacts can be clustered into four types:

- **Scientific impact:** The CONNECT4ACTION project produced seven articles and three papers that suggests a positive impact from a scientific point of view. In addition coordinator reported that the main change following the conduct of the project was the creation of awareness in innovation process: consumer has to be involved.
- **Institutional and organisational impact:** Following the conduct of the CONNECT4ACTION, coordinator reported a strong connexion between technology and consumer behaviour. Both department are now working together enabling consumer science to be more explicit. This collaboration promotes new initiatives.
- **Policy impact:** There was no impact for policy makers however at industry level there had a large influence. It enabled a better communication technology and consumer and had an impact on industry strategy such the way they deal the launch of new products.
- **Social media impact:** Despite not being planned at the beginning of the project, the CONNECT4ACTION project participants were very active on LinkedIn through the creation of a platform. It enabled more interaction and to disseminate results not only in the research community but also in a more business oriented approach.

## EU ADDED VALUE OF THE PROJECT

Apart from the leverage effect of the FP7 funding on the project (up to 74%), the European added value can be considered as follows: CONNECT4ACTION project was implemented through eleven project participants coming from eight EU Member States. The European dimension of the project was therefore important as the project did not focus research on specificities on the national food industry but on the European one. This approach would lead to a better knowledge of European consumer experience and enable synergies from the lessons learnt of each EU member states studied.

## PARTICIPANTS AND RESEARCH TEAM

### Participants

Number of participants: 11

Number of countries involved: 8

	Type	Country	Role	Previous participations to FP
STICHTING DIENST LANDBOUWKUNDIG ONDERZOEK	REC	NL	Coordinator	297
AARHUS UNIVERSITET	HES	DK	Participant	267
ALMA MATER STUDIORUM- UNIVERSITA DI BOLOGNA	HES	IT	Participant	244
INSTITUT NATIONAL DE LA RECHERCHE AGRONOMIQUE	REC	FR	Participant	278
NEDERLANDSE ORGANISATIE VOOR TOEGEPAST NATUURWETENSCHAPPELIJK ONDERZOEK - TNO	REC	NL	Participant	423
UNIVERSITY OF NEWCASTLE UPON TYNE	HES	GB	Participant	242
WAGENINGEN UNIVERSITY	HES	NL	Participant	253
EUROPEAN FOOD INFORMATION COUNCIL AISBL	OTH	BE	Participant	14
EIDGENOESSISCHES DEPARTEMENT FUER WIRTSCHAFT, BILDUNG UND FORSCHUNG	PUB	CH	Participant	46
STICHTING EFFOST	REC	NL	Participant	7
INTERNATIONALE GESELLSCHAFT FUR GETREIDEWISSENSCHAFT UND - TECHNOLOGIE	REC	AT	Participant	3

### Team Composition

Team Size: 33 members\*

GENDER		
Female	Male	Unknown
58%	36%	6%
SENIORITY		

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Average		Junior		Senior	
18%		0%		81%	
PhD					
No			Yes		
24%			76%		
BACKGROUND					
Applied Sciences	Health Sciences	Humanities & Social Sciences	Natural Sciences	Unknown	
45,45%	9%	18%	6%	21%	

\*The data are based on the analysis of the provided project's Description of Work.

### DELIVERABLES AND PUBLICATIONS

DELIVERABLE NO.	DELIVERABLE NAME	DUE DATE OF DELIVERY (month)	ACTUAL SUBMISSION DATE: (month)
D1.1	Community of relevant stakeholders through European (at least 810)	2	17
D1.2	Summary of stakeholder input via the interactive fora	36	36
D1.3	Note on cooperation between RECAPT and CONNECT4ACTION	12	17
D2.1	Report on success factors and critical points – do-s and don'ts – of the internal dialogue	12	12
D2.2	Report on success factors and critical points – do's and don'ts – of the external dialogue	12	12
D3.1	Report the outcomes of the first Delphi round	5	17
D3.2	Report the outcomes on the 2 <sup>nd</sup> Delphi round	9	17
D3.3	Report on diagnosed barriers, critical points	12	18
D4.1	Report about the shared view on integrating consumer issues into innovation process	11	16
D4.2	Report on the prototype framework of internal and external dialogue	14	-
D4.3	Report on the validated model	20	36
D5.1	Final toolbox	22	26
D5.2	Final training programs	33	20
D5.3	Report on piloting and validation of materials and training modules	36	36
D6.1	Internal and external website	6	6
D6.2	Short project reports, articles	36	36
D6.3	Podcast, webinar, workshop	36	36
D7.1	Kick-off team meeting	1	2
D7.2	Project management team meeting	23	23
D7.3	Project management team meeting	36	36

### Related publications

The project resulted in the following related publications:

PUBLICATION TITLE	Number of citations
Improving internal communication between marketing and technology functions for successful new food product development authored by Lina Fogt Jacobsen, Klaus G. Grunert, Helle Alsted Søndergaard, Bea Steenbekkers, Matthijs Dekker, and Liisa Lähteenmäki, Trends in Food Science and Technology.	-
Between Crisis and Development: Which Role for the Bio-Economy, conference paper	-

## **MAIN SOURCES**

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### **Main sources of information include:**

eCORDA;  
CORDIS database;  
OPENAIRE database,  
CONNECT4ACTION CONSORTIUM (2011). Description of Work. Annex 1  
Interview with Mrs. Karin ZIMMERMANN

## **CHANGING FAMILIES AND SUSTAINABLE SOCIETIES: POLICY CONTEXTS AND DIVERSITY OVER THE LIFE COURSE AND ACROSS GENERATIONS - "FAMILIESANDSOCIETIES"**

**Framework Programme: FP7 related to SIS**  
**Action line/Part: -**  
**Activity: -**  
**Area: -**  
**Dimension: Governance and Scientific Advice**  
**Tool: Collaborative project**  
**Project Call For Proposal: FP7-SSH-2012-1**  
**Status: Ongoing**  
**Total cost: € 8 361 008.98**  
**Total EU funding: € 6 495 142.31**  
**Website: [www.familiesandsocieties.eu](http://www.familiesandsocieties.eu)**  
**Period: 01/02/2013 - 31/01/2017**  
**Subjects: Scientific Research**  
**Project ID and Acronym: ID: 320116, Acronym: FAMILIESANDSOCIETIES**

### **BACKGROUND AND CONTEXT OF THE PROJECT AND STRATEGIC NEEDS**

There have been substantial changes in family patterns in Europe in the past decades, resulting in a wide variety of family forms and relationships. Marriage rates have declined, and both marriage and parenthood have been delayed, if entered into at all. Fertility rates have declined well below the levels that are necessary for the replacement of the population. Non-marital cohabitation has become increasingly prevalent, and divorce and separation rates have increased substantially even among couples with children. These changes have also influenced the family life-course, i.e. the sequence and pace at which certain events (such as marriage, birth, etc.) occur in individuals' lives. Individual lives are influenced by other family members, kin and broader social networks. The linkages within and between families and generations, and the decisions individuals make in these networks shape the life-courses and their outcomes.

The societal context also affects the family life-course through policies and norms that may prioritize certain types of families and distribute welfare risks more or less evenly across families and generations. The main processes that shape the family life-course interact with four dimensions: gender, culture, socioeconomic resources and life stages.

### **SPECIFIC PROJECT OBJECTIVES**

#### **Project objectives**

The ongoing EU-funded project FAMILIESANDSOCIETIES aims to further the understanding of the development of families in Europe and of the challenges resulting from these developments.

The main objectives of the project are:

- Objective 1: To investigate the diversity of family forms, relationships, and life courses in Europe;
- Objective 2: To assess the compatibility of existing policies to family changes;
- Objective 3: To contribute to evidence-based policy-making.

In order to achieve those main objectives, 5 more specific research objectives have been determined:

- To explore the complexity of European families and the individual goals, attitudes, decisions and trajectories that underlie them;
- To gain insight into the differences in family forms and dynamics across European nations, and cultural and socioeconomic groups within nations;
- To examine the implications of family change for social relations, care, well-being and inequality;
- To analyse how policies address family diversity and its consequences;
- To identify the likely paths of future changes in family compositions and needs with the purpose to support policy-makers and stakeholders in the construction of future-oriented decision-making.

#### **SiS dimension objectives**

The SiS Governance and Scientific Advice dimension notably relied on the objective of putting research back at the heart of society and subjecting its applications to political debate, as well as encouraging pan-European reflection on science and its relationship with the whole spectrum of society and culture. In that respect, the objectives of the

FAMILIESANDSOCIETIES project are in line with the objectives of the SiS Governance and Scientific Advice dimension through the purpose of investigating the nature and evolution of family forms in Europe and their implications for policy-making.

### **Innovation Union**

Strengthening the knowledge base and reducing fragmentation is an objective of the Innovation Union. In that respect, the objectives of FAMILIESANDSOCIETIES are in line with the Innovation Union objectives.

### **European Research Area (ERA) objectives**

Optimal transnational co-operation and competition in Europe is one of the ERA objectives, notably hinging on the definition and implementation of common research agendas on grand-challenges. In that respect, the objectives of FAMILIESANDSOCIETIES project in terms of pan-European research on family structures and society evolutions are consistent with the ERA objectives.

### **SaS Action Plan**

The project was in line with the SaS Action Plan and in particular with Action 38, aiming at setting up European Common Scientific Reference Systems. In fact, the project involved 25 research partners from 15 European countries and 3 transnational civil society actor partners. Their implication helped to investigate the diversity of family forms in Europe and contributed to their evolution at the EU level. Moreover it can be assessed that the project was also in line with Action 36. Even if guidelines were not properly drafted, the project aimed to communicate its outcomes to transmit the identified expertise and findings.

## **PROJECT RESULTS AND OUTCOMES**

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### **Main achievements according to Project objectives**

The project achieved the following outputs:

- Concerning objective 1: 33 reports, 42 working papers and 37 articles were written by the project consortium covering a large range of topics as non-standard families, the impact of immigration on family dynamics or childlessness. The Futures task force workshop was organised with 25 stakeholders and 12 project participants in order to provide information on the scope of family-related issues and the topic of the Second Annual Stakeholder Seminar was "Multiple pathways towards integration: The diversity of immigrant families in Europe". Furthermore, the consortium participated in the drafting of 4 books and fully wrote one entitled *Out of Time: The consequences of Non-standard Employment Schedules on Family cohesion*. Finally, they contributed to a comparative database on same-sex partnership.
- Concerning objective 2: 9 reports, 15 working papers and 15 articles were written by the consortium with regard to existing policies related to family issues, the topic of the first Annual Stakeholder seminar was "Solomonic choices. Parental separation and family policies in Europe" and one of the main questions discussed in the third one was how laws and policies shape gendered interdependencies in families. The consortium also participated in the update and extension of the Database PERFAR: Collection of Family Policies of the Population Europe Resource Finder and Archive.
- Concerning objective 3: 1 report, 2 working papers, 1 article and 4 policy briefs with regard to practitioner's view about families' vulnerability, how policies shape the organisation of caring and financial supports for family members, the diversity of immigrant families in Europe and the link between parental separation, child well-being and family policies in Europe, were written by the consortium.

It is not possible to assess if all foreseen activities were implemented as the project is still being implemented.

### **Main achievements according to SiS Dimensions**

Through the extensive results achieved by the FAMILIESANDSOCIETIES project in terms of identification of policy implications on a wide range of family-related aspects, including policy briefs directed at policy-makers, the results of the project seem to fully meet the SiS Governance and Scientific Advice dimension objectives of putting research back at the heart of society and subjecting its applications to political debate, as well as encouraging pan-European reflection on science and its relationship with the whole spectrum of society and culture and strengthening European science systems.

## **DISSEMINATION AND ENGAGEMENT ACTIVITIES AIMED AT TRANSFERRING THE PROJECT RESULTS TO WIDER COMMUNITIES**

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The principal dissemination channels adopted are:

- The project Website where 59 working papers and 53 published research articles are accessible;
- 1 book;
- 4 book chapters;

- 4 Policy Briefs;
- 7 newsletters;
- 3 stakeholder seminars;
- 35 digest of published research written in popular scientific style, so a wider audience can benefit from the research findings.
- 2 policy summaries;
- The Population and Policy Database was updated for sixteen European countries with information on family policies between the 1950s to today.

It is not possible to assess if all foreseen activities were implemented as the project is still being implemented.

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## PROJECT IMPACTS

### Potential impact

The FAMILIESANDSOCIETIES project is expected to have significant impact on the scientific knowledge on family, family change, and on policy-making related to these themes, at the European, national and local level alike.

- Concerning potential impact on **scientific knowledge**, the project should improve both the quality of scientific knowledge and the impact assessments of policies and social changes on family dynamics and family life course, through the development of specific methodological strategies and by providing in-depth insight into social and economic contexts, milestones capable of shaping family trajectories as well as their well-being.
- Concerning potential impact on **policy-making**, FAMILIESANDSOCIETIES is expected to help optimize the knowledge base for policy recommendation, notably by investigating the impact of a variety of family policies on families, family life course, gender relationships and intergenerational dynamics. Significant impact is expected to be ensured by the development of an innovative dialogue with policy-makers, civil society actors and other key stakeholders at all political levels in the EU.

Potential impact can be further assessed through the following indicators:

- **Betweenness centrality:** out of the 29 project participants, 12 are among the 1% most central institutions participating in FP7, and 21 are among the 10%.
- **Scientific attractiveness:** 9 institutions out of 28 were part of the Leiden university ranking, ranging from 439<sup>th</sup> to 56<sup>th</sup>.
- **Business attractiveness:** No project participants were ranked among the biggest R&D investors in SiS. This can notably be explained by the fact that participants were mainly universities and research institutes.

### Actual impact

As the project is still ongoing, it is difficult at the current stage to assess the actual impact of FAMILIESANDSOCIETIES.

- **Scientific impact:** As of the second progress report, six publications related to the project have been released. Five of these six were cited in other scientific publications, between 2 and 18 times. Such results before the end of the project suggest a significant potential scientific impact.
- **Social Media impacts:** -
- **Institutional and organisational impact:** As the project is still ongoing, it is too early to assess the actual institutional and organizational impact of the project.
- **Policy impact:** Four policy briefs have already been drafted so far and made available on the project website. However, the project being still ongoing, it is too early to assess the actual policy impact of the project.

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## EU ADDED VALUE OF THE PROJECT

This project has a multidisciplinary approach: it combines a wide range of expertise in social sciences, law and humanities, represented through a consortium of 25 research partners from 15 European countries, and three transnational civil society actors. As the project aimed to understand the dynamics at play between society and family structures, the plurality of cultures coming from a Europe-wide project expanded the project scope and enabled richer research findings. The interviewed project participant confirmed that the main added value was the possibility to ensure a dialogue involving partners from different regional areas and having a different expertise, such as civil

society and policy makers. This allowed a focus to be placed on topics that would normally not have been targeted, such as vulnerability, as well as acquire a broader perspective.

## **PARTICIPANTS AND RESEARCH TEAM**

### **Participants**

Number of participants: 28

Number of countries involved: 15

	<i>Type</i>	<i>Country</i>	<i>Role</i>	<i>Previous participations in FP</i>
STOCKHOLMS UNIVERSITET	HES	SE	Coordinator	138
UNIVERSITA DEGLI STUDI DI PADOVA	HES	IT	Participant	187
AGENCIA ESTATAL CONSEJO SUPERIOR DE INVESTIGACIONES CIENTIFICAS	REC	ES	Participant	701
KATHOLIEKE UNIVERSITEIT LEUVEN	HES	BE	Participant	545
MAX PLANCK GESELLSCHAFT ZUR FOERDERUNG DER WISSENSCHAFTEN E.V.	REC	DE	Participant	665
RIJKSUNIVERSITEIT GRONINGEN	HES	NL	Participant	171
THE UNIVERSITY OF LIVERPOOL	HES	GB	Participant	166
THE UNIVERSITY OF EDINBURGH	HES	GB	Participant	405
UNIVERSITEIT LEIDEN	HES	NL	Participant	163
UNIVERSITEIT ANTWERPEN	HES	BE	Participant	124
EUROPEAN UNIVERSITY INSTITUTE	HES	IT	Participant	71
UNIVERSITAET WIEN	HES	AT	Participant	181
UNIVERSIDAD NACIONAL DE EDUCACION ADISTANCIA	HES	ES	Participant	9
LONDON SCHOOL OF ECONOMICS AND POLITICAL SCIENCE	HES	GB	Participant	100
UNIVERSITATEA BABES BOLYAI	HES	RO	Participant	24
UNIVERSITE DE LAUSANNE	HES	CH	Participant	83
ERASMUS UNIVERSITEIT ROTTERDAM	HES	NL	Participant	57
OESTERREICHISCHE AKADEMIE DER WISSENSCHAFTEN	REC	AT	Participant	70
AGE PLATFORM EUROPE AISBL	OTH	BE	Participant	17
INSTITUT NATIONAL D'ETUDES DEMOGRAPHIQUES	REC	FR	Participant	7
VAESTOLIITTO RY	REC	FI	Participant	2
TALLINN UNIVERSITY	HES	EE	Participant	14
SZKOLA GLOWNA HANDLOWA W WARSZAWIE	HES	PL	Participant	8
MAGYAR TUDOMANYOS AKADEMIA TARSADALOMTUDOMANYI KUTATOKOZPONT	REC	HU	Participant	70
COLLEGIO CARLO ALBERTO - CENTRO DI RICERCA E	HES	IT	Participant	8



	Type	Country	Role	Previous participations in FP
ALTA FORMAZIONE DEUTSCHES JUGENDINSTITUT EV	REC	DE	Participant	1
Coordinadora Europea de Familias Numerosas	OTH	ES	Participant	1
FEDERACION INTERNACIONAL PARA LA ORIENTACION FAMILIAR (FIOF) ASOCIACION	OTH	ES	Participant	1

### Team Composition

Team Size: 114 members

GENDER				
Female		Male		Unknown
61%		39%		0
SENIORITY				
Average		Junior		Senior
4%		14%		82%
PhD				
No			Yes	
36%			64%	
BACKGROUND				
Applied Sciences	Health Sciences	Humanities & Social Sciences	Natural Sciences	Unknown
0%	4%	85%	5%	5%

\*The data are based on the analysis of the provided project's Description of Work.

## DELIVERABLES AND PUBLICATIONS

### Project deliverables

DELIVERABLE NO.	DELIVERABLE NAME	DUE DATE OF DELIVERY (month)	ACTUAL SUBMISSION DATE: (month)
D1.1	Kick-off meeting in Stockholm	2	1
D1.2	Report on kick-off meeting	2	2
D1.3	First annual consortium meeting in Tallinn	12	12
D1.4	Reports on consortium meeting in Tallinn, and Advisory Board, Steering Committee, General assembly	12	12
D1.5	First interim report on progress and financial statement	18	20
D1.6	Second annual consortium meeting in Madrid	24	24
D1.7	Reports on consortium meeting in Madrid, and Advisory Board, Steering Committee, General assembly	24	24
D1.8	Second interim report on progress and financial statement	36	-
D1.9	Third annual consortium meeting in Vienna	36	-
D1.10	Reports on consortium meeting in Vienna, and Advisory Board, Steering Committee, General assembly	36	-
D1.11	Final conference in Brussels	46	-
D1.12	Reports on final conference in Brussels	46	-
D1.13	Final report and financial statement	48	-
D2.1	State-of-the-art report: Changes in the life course	6	6
D2.2	Data contribution to a comparative database on same-sex partnership of WP9	20	20

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DELIVERABLE NO.	DELIVERABLE NAME	DUE DATE OF DELIVERY (month)	ACTUAL SUBMISSION DATE: (month)
D2.3	Report: Changes in entry into adulthood across Europe	24	24
D2.4	Report: Analysis of determinants and prevalence of new family forms: LAT and multiresidence	24	24
D2.5	Report: Intended and realized life courses.	36	-
D2.6	Report: The formation and dissolution of households in Europe	36	-
D2.7	Report: New family forms: same-sex partnership, stepfamilies and multiresidence	36	-
D2.8	Summary report of key findings for WP2	42	-
D3.1	State-of-the-art report: The new roles of men and women	6	6
D3.2	Methodological report: measurement of education specific meeting squeeze	18	18
D3.3	Reports on women's new role and implications for family dynamics	42	-
D3.4	Report on women's new role and its implication for men	44	-
D3.5	Report on fathers' parental leave use and employers' reaction in Switzerland	14	14
D3.6	Report on the gendered transition to parenthood in Sweden	24	24
D3.7	Report on the gendered transition to parenthood in Austria	41	-
D3.8	Reports on new gender roles and implications for family life in Germany and Hungary	40	-
D3.9	Report on doing stepfamily	40	-
D3.10	Reports on fathers' time with children, trends and determinants in France, Italy, Sweden and the UK	36	-
D3.11	Report on coping strategies under uncertain, precarious employment conditions in Switzerland	12	12
D3.12	Report on the impact of economic uncertainty on childbearing intentions in Europe	24	24
D3.13	Report on partners' labour market situation and earnings on childbearing in five European countries	28	28
D3.14	Summary report of key findings for WP3	46	-
D4.1	State-of-the-art report: The changing role of children	6	6
D4.2	Report: Macro-level determinants of childlessness	18	18
D4.3	Report: Micro-level determinants of childlessness	28	28
D4.4	Report: Narratives of childlessness: A qualitative analysis	36	-
D4.5	Report: Taking Stock of ART: Demographic, regulatory and economic aspects	14	14
D4.6	Report: The Societal Consequences of ART	24	24
D4.7	Report: ART in Europe: Towards legal coherence and policy recommendations	32	32
D4.8	Summary report of key findings for WP4	42	-
D5.1	State-of-the-art report: Family dynamics and inequalities in children's life chances	6	6
D5.2	Report: Cohort trends in effects of family dynamics on children's life chances	18	18
D5.3	Report: Multiple family forms, family dynamics and children's life chances and attainment	26	26
D5.4	Report: Effects of family dynamics on children across cultural/socioeconomic groups	36	-
D5.5	Report: Causal effects of family transitions	36	-
D5.6	Report: Family structure and parenting practices	36	-
D5.7	Report: Children's living conditions under the second demographic transition	40	-
D5.8	Summary report of the findings of WP5	42	-
D6.1	State-of-the-art report: Child development	6	6

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DELIVERABLE NO.	DELIVERABLE NAME	DUE DATE OF DELIVERY (month)	ACTUAL SUBMISSION DATE: (month)
D6.2	Report on parental time allocation and income investment on children and family structure	12	12
D6.3	Report on time and income investment and childcare decisions on child outcomes	24	24
D6.4	Report on gender differences in cognitive outcomes by parent's characteristics and childcare forms	36	-
D6.5	Report on childcare forms and child outcome (migrants and natives)	36	-
D6.6	Report on incentive structures on parents use of particular childcare forms	26	26
D6.7	Report on families with disabled children in different countries of Europe	16	16
D6.8	Report on the Finnish case study	36	-
D6.9	Report on a comparison between 20 European countries	46	-
D6.10	Summary report of key findings for WP6	46	-
D7.1	State-of-the-art report: Intergenerational linkages in families	6	6
D7.2	Report: Determinants of intergenerational co-residence	28	28
D7.3	Report: The organization of caring and financial responsibilities, "up" and "down" family lines	35	-
D7.4	Report: Norms of family obligation and actual giving/receipt of financial support/care	28	28
D7.5	Report: The implications of different policy arrangements for inequalities in and between families	32	32
D7.6	Report: Effects of economic crisis on intergenerational dependencies in families in Europe	42	-
D7.7	Summary report of key findings for WP7	42	-
D8.1	State-of-the-art report: Family trajectories among immigrants and their descendants	6	6
D8.2	Report: Country-specific case studies on partnership dynamics among immigrants and their descendants	14	14
D8.3	Report: A comparative study on partnership dynamics among immigrants and their descendants	18	18
D8.4	Report: Country-specific case studies on fertility among the descendants of immigrants	22	22
D8.5	Report: A comparative study on fertility among the descendants of immigrants	26	26
D8.6	Report: Country-specific case studies on mixed marriages	30	30
D8.7	Report: A comparative study on mixed marriages.	34	34
D8.8	Summary report of key findings for WP8	42	-
D9.1	State-of-the-art report: Policies and family diversity	6	6
D9.2	Report on analyses regarding non-standard families	41	-
D9.3	Database of legal issues of same-sex and different-sex families goes online	42	-
D9.4	Report on statistical identification of non-standard family forms by surveys	9	9
D9.5	Report on policies helping youth to achieve self-sufficiency	24	24
D9.6	Database on EU family-policies initiatives and report on content analysis	36	-
D9.7	Report on the consequences of parental/care leave in the Nordic countries	36	-
D9.8	Report on migration and care	30	30
D9.9	Summary report of key findings for WP9	44	-
D10.1	State-of-the-art report: The foresight approach	6	6
D10.2	Report on the futures task-force workshop	18	18
D10.3	Report on the results of the micro-simulation and	25	25

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DELIVERABLE NO.	DELIVERABLE NAME	DUE DATE OF DELIVERY (month)	ACTUAL SUBMISSION DATE: (month)
D10.4	<i>agent-based approach about future of family forms Report on the focus groups with stakeholders and policy makers</i>	27	27
D10.5	<i>Report: Results of the online questionnaire and main results of the expert group consultations</i>	39	-
D10.6	<i>Final report: Outline of future trends of family change</i>	45	-
D11.1	<i>State-of-the-art report: Identifying research gaps</i>	12	12
D11.2	<i>Integrative transversal workshop</i>	36	-
D11.3	<i>Synthesis Report: the summary of aims, objectives, main findings of the project</i>	48	-
D11.4	<i>Policy recommendation: Report assessing existing policies and presenting best practices</i>	48	-
D12.1	<i>Establishment of the project website</i>	6	5
D12.2	<i>First Annual stakeholder seminar</i>	13	13
D12.3	<i>Second Annual stakeholder seminar</i>	25	25
D12.4	<i>Third Annual stakeholder seminar</i>	37	-
D12.5	<i>Fourth Annual stakeholder seminar</i>	47	-
D12.6	<i>First year Digests</i>	12	12
D12.7	<i>Second year Digests</i>	24	24
D12.8	<i>Third year Digests</i>	36	-
D12.9	<i>Fourth year Digests</i>	48	-
D12.10	<i>First Newsletter</i>	7	7
D12.11	<i>Second Newsletter</i>	12	12
D12.12	<i>Third Newsletter</i>	19	19
D12.13	<i>Fourth Newsletter</i>	24	24
D12.14	<i>Fifth Newsletter</i>	31	31
D12.15	<i>Sixth Newsletter</i>	36	-
D12.16	<i>Seventh Newsletter</i>	42	-
D12.17	<i>Eighth Newsletter</i>	48	-
D12.18	<i>First Summary and Policy Brief</i>	17	17
D12.19	<i>Second Summary and Policy Brief</i>	29	28
D12.20	<i>Third Summary and Policy Brief</i>	41	-
D12.21	<i>Fourth Summary and Policy Brief</i>	48	-
D12.22	<i>Update of the Population and Policy Database</i>	24	24

### Related publications

PUBLICATION TITLE	Number of citations
<i>Childbearing Intentions and Economic Uncertainty in Contemporary Europe</i>	0
<i>Differential effects of parental separation on child outcomes: are children from higher social backgrounds affected more?</i>	4
<i>Family Dynamics Among Immigrants and Their Descendants in Europe: Current Research and Opportunities</i>	18
<i>La inmigración por motivos familiares durante la crisis</i>	4
<i>Partnership formation and dissolution among native and immigrant population in Spain. An intergenerational analysis</i>	2
<i>State-of-the-art Report : child care arrangements : determinants and consequences</i>	3

### MAIN SOURCES

FAMILIESANDSOCIETIES Result In Brief  
 FAMILIESANDSOCIETIES Description of Work  
 FAMILIESANDSOCIETIES Periodic Report Summary 2  
 FAMILIESANDSOCIETIES Website  
 Interview with Dr Livia OLAH

## **SOCIAL INNOVATION: DRIVING FORCES OF SOCIAL CHANGE - "SI-DRIVE"**

**Framework Programme: FP7 related to SIS**  
**Dimension: GOVERNANCE AND SCIENTIFIC ADVICE**  
**Tool: Collaborative Project**  
**Project Call For Proposal: FP7-SSH-2013-1**  
**Status: Ongoing**  
**Total cost: € 6 252 282.80**  
**Total EU funding: € 4 872 649.20**  
**Website: <http://www.si-drive.eu/>**  
**Period: 01/01/2014 - 31/12/2017**  
**Subjects: Policies - Social Aspects**  
**Project ID and Acronym: 612870, SI-DRIVE**

### **BACKGROUND AND CONTEXT OF THE PROJECT AND STRATEGIC NEEDS**

Over the past decades, the concept of innovation has been mainly associated with economic and technological perspectives. However, much of the early theoretical work underlined the socio-cultural dimension of innovation, starting with Schumpeter in the early 20<sup>th</sup> century. Today, this aspect of innovation tends to resurface, notably through the concept of social innovation, which has been gaining ground in debates as practitioners, policy makers and the research community increasingly agree on the need for widespread social innovation to cope with the challenges of today's society.

Recent developments in social innovation (SI) have been mainly practice-led through projects, initiatives, methods and efforts to establish innovation. However, there has not been until now any real comprehensive theory of social innovation. The SI-DRIVE project was conceived as a way to bridge that gap.

### **SPECIFIC PROJECT OBJECTIVES**

#### **Project Objectives**

The (ongoing) SI-DRIVE project aims at **proposing a European as well as global mapping of social innovation practices**. This shall be based on a coherent methodology and the empirically tested foundations of social innovation, conceptualised as a means to empower people, reduce poverty gaps and influence on-going societal changes towards 'smart, sustainable and inclusive growth' (Europe 2020).

To achieve this overarching goal, several intermediary objectives were foreseen:

- To determine the nature, characteristics and impacts of social innovation as key elements of a new paradigm of innovation (strengthen the theoretical and empirical base of social innovation as part of a wider concept of innovation that thoroughly integrates social dimensions)
- To map, analyse and promote social innovations in Europe and world regions to better understand and enable social innovations and their capacity for changing societies
- To identify and assess success as well as failure factors of SI in seven particular policy areas (education, employment, environment, energy, mobility/transport, health and social care, poverty and sustainable development) supporting reciprocal empowerment in various countries and social groups to engage in SI for development
- To undertake future-oriented policy-driven research, analyse barriers and drivers for SI; develop tools and instruments for policy interventions (SI experimentation, incubation, 'SI Manual').

#### **SiS dimension objectives**

The SI-DRIVE project aims at proposing a European as well as global mapping of social innovation practices. This includes to undertake future-oriented policy-driven research. In that respect, the project's objective was relevant for the SaS Governance and science advice dimension whose purpose was in particular to put science at the heart of the society and thus in the policy-making process.

#### **Innovation Union objectives**

"*Strengthening the knowledge base and reducing fragmentation*" is the first intermediate objective of the Innovation Union. The SI-DRIVE project intends to propose mapping of social innovation practices and is therefore consistent with the Innovation Union.

#### **European Research Area (ERA) objectives**

The project objectives are in line with the ERA objectives of developing optimal transnational co-operation and competition, and of guaranteeing access to and uptake of knowledge by all.

### **SaS Action Plan**

The SI-DRIVE project will contribute to action 36 through the improvement of knowledge regarding practices in social innovation and through the development of tools and instruments to advice policy interventions. These activities and the promotion of social innovation in Europe will contribute to the awareness of this new practice at the European level. Thus the project is linked with the action 28 to ensure the co-ordination of social innovation at the European level.

### **PROJECT RESULTS AND OUTCOMES**

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#### **Main achievements according to Project objectives**

Although the project is still ongoing, significant results have already been achieved:

- Project participants have managed to agree on a broad definition of social innovation, its nature and characteristics. Five key elements for a new paradigm of innovation were defined, taking into account cross-cutting themes. Participants have also started strengthening the theoretical background of social innovation and case studies are being conducted to develop the methodology and theoretical framework.
- Concerning social innovation mapping, a comparative analysis of more than one thousand cases from all over the world has been carried out. Regional reports on policy "state of the art" were drafted for the different parts of the world. These cases are all distributed among the seven policy areas identified for social innovation and regional reports have been drafted for each part of the world.
- Success and failure factors of social innovation have not been clearly identified yet. They will be drawn from the case studies and the related policy field specific analysis currently being conducted in each field.
- Some progress has been achieved concerning future-oriented policy-driven research through the organisation of workshops for each of the seven policy fields identified for social innovation. One workshop for each field has been organised, in addition to an overarching workshop with several Directorate Generals of the European Commission (including EAC, RTD, GROW and ENV).

The project is still on-going, thus all the planned objectives have not yet been achieved.

#### **Main achievements according to SiS Dimensions**

SI-DRIVE mainly contributes to knowledge creation and to providing scientific advice by identifying the nature, impact and characteristics of social science as well as recommendations in related policy-fields. This scientific advice will improve the European science systems. The study of social innovation is in crossfire of science and society and will improve the understanding of the place of science and technology in society.

### **DISSEMINATION AND ENGAGEMENT ACTIVITIES AIMED AT TRANSFERRING THE PROJECT RESULTS TO WIDER COMMUNITIES**

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Many conferences were organised on social innovation all over Europe, and generated significant interest as all were overbooked. At the stage of the case study drafting, the dissemination activities were at this stage:

#### **Implemented:**

- SI-LIVE – Bringing together social innovation, incubation and action (12.11. – 13.11.2014, Lisbon ) See: <http://si-live.weebly.com>
- Intermediate international conference: Social Innovation 2015 – "Pathways to Social Change". (18.11. – 19.11.2015, Vienna) See: [http://www.si-drive.eu/?page\\_id=1135](http://www.si-drive.eu/?page_id=1135)

#### **On-going:**

- Policy field forums or tables (2x7), dedicated to involve stakeholders from public, private, and civil society in the discussion on social innovations and the development of policy recommendations. See: <http://www.si-drive.eu/?p=2196>

#### **Planned:**

- Final international conference: Autumn 2017.

### **PROJECT IMPACTS**

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#### **Potential impacts**

The SI-DRIVE project pointed to the extension of knowledge through five main potential impacts:

- Developing new scientific concepts and theoretical frameworks for understanding the key characteristics, drivers and barriers of social innovation on a global perspective;

- Generating new empirical evidence on social innovation across Europe and beyond (mapping), including the identification and assessment of current trends and objectives of national social innovation strategies;
- Considering future changes and the specification of potential drivers and barriers of social innovations in key policy areas;
- Analysing the relation between social innovation and social change; and
- Considering the governance of change.

Furthermore, the project's potential impact can be further assessed through the following indicators:

- **Betweenness centrality:** Five participating organisations of the SI-DRIVE project were amongst the most central participants in FP7.
- **Scientific attractiveness:** Three participants were ranked in the Leiden University ranking. Their ranking were the following: 621th place for the Zhejiang University, 422th place for the Brunel University and 354<sup>th</sup> place for the University of Cape Town.
- **Business attractiveness:** None project participant was not ranked as one of the biggest R&D investors amongst SiS participants.

### Actual impacts

As the project is not yet closed, assessing actual impact is considered to be premature. Nevertheless, some impacts have already been identified:

- **Scientific impact:** SI-DRIVE has enabled the opening up of research on social innovation by setting a clear theoretical framework for the concept. Among others, the perspective of social entrepreneurship is opening to new paradigms and needs to be studied. At the stage of the drafting of the case study, eight publications were already published.
- **Social media impacts:** As of March 2016, only 18 posts referring to the SI-DRIVE project were published in social media.
- **Institutional and organisational impact:** As a result of the SI-DRIVE project, there is a growing social innovation community in Europe, which includes much cooperation with other projects and actors worldwide.
- **Policy impact:** Formulations on policy recommendations is only starting and should become more significant with the policy field specific analysis. A meeting on social entrepreneurship was organised in Brussels where representatives from many Directorate Generals came to debate on the concept and ways to transpose it to other policy fields. Moreover the project coordinator explained during an interview that the results achieved through SI-DRIVE contributed to adding the concept of social innovation to the German high-tech strategy, which was described as an aspect of innovation just as important as technological innovation. In that respect, the EU impulse was seen as a catalyst for national projects, which tend to integrate the results from European projects and adapt them to their national focus, therefore complementing the EU-funded projects instead of duplicating them.

### EU ADDED VALUE OF THE PROJECT

Having the project funded by EU programmes enabled the beneficiaries to undertake research at a European level and develop a valuable network. During an interview, the project coordinator explained that nationally or regionally-funded projects tend not to include international partners, while having a transnational perspective was essential for the SI-project given the will to frame and map social innovation characteristics at a larger scale. Moreover, national research programmes tend to fund more specific projects with more focused research dimensions. A project as wide as SI-DRIVE would therefore have had difficulty finding other funding schemes in Member States. Finally, the project coordinator also mentioned through interview that EU SaS/SiS projects enable the integration of European networks which helps to spread positive impacts on the transnational level and develops a constructive and multi-disciplinary dialogue.

### PARTICIPANTS AND RESEARCH TEAM

#### Participants

Number of participants: 25

Number of countries involved: 22

	Type	Country	Role	Previous participations to FP
TECHNISCHE UNIVERSITAET DORTMUND	HES	DE	Coordinator	72
NEDERLANDSE ORGANISATIE VOOR TOEGEPAST NATUURWETENSCHAPPELIJK ONDERZOEK - TNO	REC	NL	Participant	422
UNIVERSIDAD DE LA IGLESIA DE DEUSTO	HES	ES	Participant	11



Stock-taking and meta-analysis of Science in Society projects throughout FP6 and FP7  
Final Case Studies

	Type	Country	Role	Previous participations to FP
ISTANBUL TEKNIK UNIVERSITESI	HES	TR	Participant	42
UNIVERSITY OF CAPE TOWN	HES	ZA	Participant	29
APPLIED RESEARCH AND COMMUNICATIONS FUND	REC	BG	Participant	10
BRUNEL UNIVERSITY	HES	GB	Participant	102
ZENTRUM FUER SOZIALE INNOVATION	REC	AT	Participant	52
AIT Austrian Institute of Technology GmbH	REC	AT	Participant	142
ZHEJIANG UNIVERSITY	HES	CN	Participant	8
WESTFALISCHE HOCHSCHULE GELSENKIRCHEN, BOCHOLT, RECKLINHAUSEN	HES	DE	Participant	4
FORENINGEN IKED	REC	SE	Participant	2
UNIVERSITE DU QUEBEC A MONTREAL*UQAM	HES	CA	Participant	2
TATA INSTITUTE OF SOCIAL SCIENCES	HES	IN	Participant	2
UNIVERSITATEA DANUBIUS DIN GALATI ORGANIZATIE NON PROFIT	HES	RO	Participant	0
INSTITUTE OF SOCIO-ECONOMIC DEVELOPMENT OF TERRITORIES OF RUSSIAN ACADEMY OF SCIENCES	REC	RU	Participant	0
THE YOUNG FOUNDATION	REC	GB	Participant	5
UNITED NATIONS ECONOMIC COMMISSION FOR LATIN AMERICA AND THE CARIBBEAN	PUB	CL	Participant	0
HELIOPOLIS UNIVERSITY ASSOCIATION	HES	EG	Participant	0
LABORATORIJ ZA DRUSTVENE INOVACIJE UDRUGE	REC	HR	Participant	0
LAMA DEVELOPMENT AND COOPERATION AGENCY SOCIETA COOPERATIVA	PRC	IT	Participant	0
KAZIMIERO SIMONAVICIAUS UNIVERSITETAS UAB	HES	LT	Participant	0

### Team Composition

Team Size: 84 members

GENDER				
Female		Male		Unknown
45%		51%		4%
SENIORITY				
Average		Junior		Senior
1%		13%		86%
PhD				
No			Yes	
46%			54%	
BACKGROUND				
Applied Sciences	Health Sciences	Humanities & Social Sciences	Natural Sciences	Unknown
5%	1%	89%	1%	4%

\*The data are based on the analysis of the provided project's Description of Work.

### DELIVERABLES AND PUBLICATIONS

DELIVERABLE NO.	DELIVERABLE NAME	DUE DATE OF DELIVERY (month)	ACTUAL SUBMISSION DATE: (month)
D1.1	Critical Literature Review	2	3
D2.1	Methodology Review	12	12
D2.3	Guidelines for Roundtable and Foresight Workshops	20	20
D3.1	Database Screening Report and Manual	10	10
D3.4	Compilation of State of the Art Reports on Policy Fields	18	18
D4.1	State of the Art: Social Innovation in Education and Lifelong	15	15



Stock-taking and meta-analysis of Science in Society projects throughout FP6 and FP7  
Final Case Studies

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DELIVERABLE NO.	DELIVERABLE NAME	DUE DATE OF DELIVERY (month)	ACTUAL SUBMISSION DATE: (month)
	<i>Learning</i>		
D5.1	<i>Policy Field Report – Employment</i>	15	15
D6.1	<i>Policy Field Report – Environment and Climate Change</i>	15	15
D7.1	<i>State of the Art Report: Social innovation in Energy Supply From a European And Global Perspective</i>	15	15
D8.1	<i>Social Innovation in Transport and Mobility</i>	15	15
D9.1	<i>State of the Art: Social Innovation in health and Social Care</i>	15	15
D10.1	<i>Policy Field Report: Poverty and Sustainable Development</i>	15	15
D11.1	<i>Working Paper Policy Framework for Social Innovation</i>	10	10
D12.1	<i>SI Website</i>	2	3
D12.2	<i>SI Drive Newsletter – First Edition</i>	-	-
D13.1	<i>Risk Monitoring and Evaluation Plan</i>	2	3
D13.2	<i>Project Progress Monitoring</i>	2	3
D13.3	<i>Cooperation with Other SI Projects</i>	4	5
-	-	-	-
-	-	-	-
-	-	-	-

#### **MAIN SOURCES**

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SI-DRIVE Description of Work  
SI-DRIVE Periodic Report Summary  
SI-DRIVE website: <http://www.si-drive.eu/>  
Interview with Dr Antonius Schroeder

## **ASSESSMENT OF POLICY IMPACTS ON SUSTAINABILITY IN EUROPE**

### **BACKGROUND AND CONTEXT OF THE PROJECT AND STRATEGIC NEEDS**

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The EU formulated ambitious environmental policy targets in a variety of sectors which aimed at forming the basis for sustainable European growth with increasing prosperity and reduced pressure on natural resources and the environment. The major frameworks for achieving this goal are the EU Sustainable Development Strategy (SDS) and the EU 2020 strategy, in particular, with its flagship initiative for a resource efficient Europe. In the field of energy and climate protection, for instance, targets include the reduction of greenhouse gas emissions, improvement of energy efficiency and increasing the use of renewable energy technologies. In order to achieve these targets, a broad package of policies and measures will be required which vary from market-based instruments to government-imposed legislation. These policies and measures need to function together in an efficient way whereby mutual reinforcement needs to be sought and counter productivities avoided.

### **SPECIFIC PROJECT OBJECTIVES**

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#### **Project objectives**

The overall objective of the APRAISE project was to improve the decision basis for EU and national policy makers for selecting an efficient environmental policy mix leading to the transition towards a sustainable European society, including appropriate support for environmental investments.

The following specific objectives were identified by the project consortium:

- **Policy relevant objectives:** the overall goal was to allow better informed decisions on the environmental policies and policy mixes employed at the European and national levels. The specific objectives related to this goal were:
  1. Improve the decision basis for the selection of policy tools through a better understanding of the efficiency and effectiveness of different sustainability-related policy tools;
  2. Include policy interrelationships into efficiency assessment and policy design. Interrelationships include intra-sectoral, inter-sectoral as well as EU-MS interactions;
  3. Develop an improved methodological framework for the ex-post and ex-ante assessment of environmental policies and policy mixes based on a review and expansion of existing approaches;
  4. Empirically assess the existing and planned environmental policies in several EU Member States and selected sectors and expand the existing databases on cost, effects and social implications of environmental policies;
  5. Evaluate the role of sustainable development indicators for impact assessment with an analysis of the relevance of existing indicators, an analysis of the relevance of new or alternative indicators and an assessment of the contextual factors that shape the degree to which indicators are used by various policy actors and influence policymaking.
- **Scientific and technical objectives:** In order to meet the specific policy related objectives, the following scientific and technical objectives were set by the consortium:
  1. Provide a critical overview and review of existing methodologies for the ex-post and ex-ante assessment of the costs, efficiency and impacts of policies and measures;
  2. Refine, expand and potentially develop new qualitative and quantitative methodologies for ex-post and ex-ante evaluation of policies and measures taking policy interactions into account;
  3. Improve the available database on costs and impacts of policy tools and test existing and improved assessment methodologies by carrying out case studies in several key sectors;
  4. Increase the analytical capacity of quantitative models, including Global Trade Analysis Project (GTAP) and Business Strategy Assessment Model (BSAM) models by expanding their sectoral scope and coverage of environmental policy instruments in models thereby going beyond the energy sector;
  5. Test the analytical models to examine critical policy gaps and overlaps;
  6. Review and improve different methodological approaches (qualitative, semi-quantitative, model-based) in order to integrate and compare the results of policies analysed at the sectoral, national and European level.

#### **SIS Dimension objectives:**

Through its ambition of improving the assessment of environmental policies at European and national scales, APRAISE's objectives were in line with the Governance and scientific advice dimension of FP7 of which the purpose was to stimulate the harmonious integration of scientific and technological endeavour, and associated science and research policies by encouraging pan-European reflection and debate on science and technology. Indeed, a better assessment of European policies pave the way for a productive debate moving towards an effective and democratic European knowledge-based society.

#### **Innovation Union objectives:**

An effective functioning of the EU innovation system and a positive influence on the quality of the policy making are one of the goals of the Innovation Union programme. Since the overall objective of APRAISAL is to improve the decision basis for EU and national policy makers for selecting efficient environmental policies in order to build a sustainable European society including appropriate support for environmental investment, their objectives are consistent.

#### **European Research Area (ERA) objectives:**

Improving the assessment of environmental policies at European level is a way to encourage the implementation of a more effective national research system and to develop research investment and those two topics count among ERA's priorities.

#### **SaS Action Plan:**

The project was consistent with the SaS Action Plan and in particular with:

- Action 28, as the project aimed at investigating, comparing and assessing policies and results both at the national and EU level, therefore contributing to a stronger co-ordination of prospective activity at the European level.
- Action 38, as the project indirectly contributed to the setting up of European Common Scientific Reference Systems, through the provision of a critical overview and the development of methodologies.

### **PROJECT RESULTS AND OUTCOMES**

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#### **Main achievements according to Project objectives**

The APRAISE project achieved the following outputs:

- **Concerning the first political objective**, the project consortium evaluated existing methodologies for policy evaluation and environmental impact assessment. A review of ex-post and ex-ante policy evaluation methods for environmental policies with the specific pros and cons of each was elaborated.
- **Concerning the second and the third political objectives**, the consortium developed the 3E Method which aims to help policymakers to address anticipated effects of a policy during its design stage. This method helps to bridge the gap between expected and achieved policy effects and impacts. Furthermore, it emphasises the relationships and interactions between the system's elements as several kinds of factors are assessed: environmental factors, economic factors, social factors, policy implementation factors and technological factors.
- APRAISE also analysed how quantitative modelling tools can translate the lessons from the APRAISE 3E method into recommendations for future policy making with the help of two models: the Global Trade analysis Project (GTAP) and the Business Strategy Assessment Model (BSAM).
- **Concerning the fourth political objective**, the APRAISE 3E method was applied to six environmental policy cases studies, each covering two EU Member States:
  - Offshore wind power and protection of marine environment in Estonia and Germany;
  - Supporting biofuels for transport and interactions with other environmental objectives in Austria and the UK;
  - Recycling of plastic packaging waste in Germany and The Netherlands;
  - Sustainable energy buildings in Greece and the Netherlands;
  - The impact of hydropower generation on river basins in Austria and Slovenia;
  - Synergies and trade-offs between renewable electricity production and energy efficiency promotion in the built environment in Greece and Slovenia
- **Concerning the fifth political objective**, the project consortium reviewed sustainable development indicators, developed both at national and supra-national, and sub-national levels.

On the basis of the collected documentation, it is not possible to detect uncompleted activities.

### **Main achievements according to SiS dimensions:**

APRAISE's results were in line with the governance and scientific advice dimension of SIS as it established an improved assessment method for policy evaluation and encouraged the uptake of scientific advice in policymaking. In doing so, the project contributed in building an open, effective and democratic European knowledge-based society, therefore improving European science systems.

### **DISSEMINATION AND ENGAGEMENT ACTIVITIES AIMED AT TRANSFERRING THE PROJECT RESULTS TO WIDER COMMUNITIES**

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The following dissemination activities were carried out:

- A logo was designed;
- Graphic guidelines were established;
- 8 newsletters were published;
- 2 leaflets were produced;
- A website is still available;
- A Final Conference was organised;
- Use of social media: the project's Twitter account had 20 followers and 65 tweets, the project also had a LinkedIn account with 50 members, its Facebook account counted 100 likes and each post were reached by an average of 60 people. The consortium also created an account on the MyEUROPA platform;
- 2 workshops and one final conference were organised by APRAISE;
- More than 5 scientific publications were made;
- 2 factsheets were published;
- 2 APRAISE Videos were produced;
- The APRAISE Summer School was implemented on 25-29 August 2014 in Ljubljana in order to teach students about policy making for a better environment;
- 5 posters were created;
- An APRAISE Press Release was sent out to more than 1000 stakeholders, in order to disseminate the APRAISE Policy Brief and the APRAISE Synthesis Document;
- The consortium participated in 15 conferences where they presented the project.

On the basis of the collected documentation, it seems that all planned dissemination activities were completed.

### **PROJECT IMPACTS**

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#### **Potential impact**

The main potential impact highlighted by the consortium was "an increased ability to engage a radical pathway to reaching and maintaining a far more sustainable Europe by 2020 and beyond, and promoting sustainability at a global scale".

The more specific potential impacts described by the consortium were:

- A better ex-post and ex-ante assessment of the impacts of environmental policies;
- A better comprehension of policy coherence between sectors and at the level of EU Member States;
- A better qualitative understanding of the efficiency, efficacy and effectiveness of different environmental policies and policy combinations;
- The significant expansion of existing economic and social accounting of environmental policies in EU Member States;
- A better knowledge about the different approaches (qualitative and quantitative) of impact assessment and evaluation of which dimension of sustainability can be addressed best;
- A better informed use of existing and other potentially relevant SD indicators;
- A better evaluation of the applicability of impact assessment tools proposed in the LIAISE toolbox;
- A better awareness of stakeholders and policymakers of the policy evaluation issue.

Potential impacts can be further assessed through the following indicators:

- **Betweenness centrality:** Four institutions out of the ten participating in the project were in the top 1% most central institutions in FP7. Seven were in the top 5% and eight in the top 10%.
- **Scientific attractiveness:** Three institutions out of ten were ranked in the Leiden university ranking: the National technical university of Athens, ranked 532<sup>th</sup>, the University of Ljubljana, ranked 618<sup>th</sup> and the University of Sussex, ranked 139<sup>th</sup>.
- **Business attractiveness:** No participants from APRAISE were ranked amongst the biggest R&D investors having participated in SIS. This can notably be explained by the fact that participants were mainly universities and research institutes.

### Actual impact

The actual impact can be clustered into four types:

- **Scientific impact:** At least five scientific publications were edited during the implementation of APRAISE and at the time of the redaction of the final report several publications were either under consideration or were in progress. In addition, the APRAISE Special Issue "Assessment of Policy Interrelationships and Impacts on Sustainability EC FP7 APRAISE" was supposed to be published in the International Journal of Mitigation and Adaptation Strategies for Global Change.
- **Social Media impacts:** between 2011 and 2016, 11 posts were found referring to the APRAISE project. This is not consistent, however, with the work undertaken in relation to social media, as outlined above.
- **Institutional and organisational impact:** The project did not result in the creation of institutions, bodies or networks.
- **Policy impact:** The APRAISE project has a great policy impact by creating a methodology useful for policy debate. The APRAISE 3E method can help policy makers at a national or European level to anticipate the impacts of an environmental policy and so doing influence the policy debate.

### EU ADDED VALUE OF THE PROJECT

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Since the main goal of the project was to help building a sustainable European society by improving the decision basis for environmental policies, research at European level with the contribution of different EU countries was required. As nine nationalities were involved in the project, the consortium could harness a greater potential for knowledge gathering and exchange. Through the project, research from a European knowledge base and several case studies in different European countries.

### PARTICIPANTS AND RESEARCH TEAM

#### Participants

- Number of participants: 10
- Number of countries involved: 9

#### Team Composition

### DELIVERABLES AND PUBLICATIONS

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#### Related publications

More than 5 publications have been made during APRAISE implementation, while several publications are either under considerations on finding and selecting the appropriate journal for publication or are already in progress. Particularly, these publications include the following:

### MAIN SOURCES

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APRAISE Description of Work  
APRAISE Result In Brief  
APRAISE Final Report Summary  
APRAISE Website

## Open Access (Open Science): Science and Society

## **EUROSCIENCE OPEN FORUM (ESOF) IN MUNICH, 2006 - "ESOF2006"**

**Framework Programme: FP6-Science and Society**

**Action line/Part: Part C: Stepping up the Science/Society Dialogue and Women in Science**

**Activity: 4.3.6 Horizontal Actions**

**Area: -**

**Dimension: Open Access and Open Science**

**Tool: Specific Support Actions**

**Project Call For Proposal:**

**Status: -**

**Total cost: 300.000 €**

**Total EU funding: 300.000 €**

**Website: <http://www.esof.eu/past-esof/esof-2006-munich.html>**

**Period: 01/03/2006 – 28/02/2007**

**Subjects: Information and Media, Scientific Research, Social sciences and humanities**

**Project ID and Acronym: 38284, ESOF2006**

### **BACKGROUND AND CONTEXT OF THE PROJECT AND STRATEGIC NEEDS**

Recognizing the need for a more interactive dialogue between science and society, the project aimed to offer a platform geared not only towards showcasing research and scientific results to the public but also engaging scientists and various societal stakeholder groups in a joint and open debate at the EuroScience Open Forum (ESOF) in Munich in 2006. The project addresses the strategic need to raise awareness and interest in science among the general public on the one hand, and to enhance scientists' awareness for societal demands and impact of their research on the other. Furthermore, to foster the development of a European Research Area, the project recognizes the strategic need to engage scientists and policy-makers in joint debate about the governance of science, to foster integration between national science systems and between the natural and the social sciences. Finally, the project recognized that for shaping a knowledge-based society, the prospects and career opportunities for young researchers need to be enhanced.

### **SPECIFIC PROJECT OBJECTIVES**

Against this background, the main objectives of the EuroScience Open Forum 2006 were to: (a) present science and the humanities at the cutting-edge to a broad public audience, (b) stimulate scientific awareness, excitement and debate about science and technology, (c) foster debate on the science and society relationship and the role of science in society and with regard to public policy. The general purpose of the ESOF Open Forum is to serve as an independent arena to enhance dialogue between science and society. ESOF 2006 therefore aims to bring together all groups involved in the European scientific endeavour. A concrete target has been to attract about 2200 participants, including researchers, political decision makers, journalists, and lay persons interested in science and technology. By bringing together these various kinds of stakeholders in one place, ESOF aimed at:

- Promoting cross-disciplinary interaction,
- Providing a stage for discussion on current policy issues like ethics and scientific conduct, the gender discussion or careers in science for young researchers,
- Facilitating the formation and further development of the European Research Area,
- Encouraging communication between the public, politicians, policy-makers, and the media on current trends and future directions for the scientific research,
- Popular science presentations of front-line scientific research thereby enhancing scientists' awareness of the public's rightful role.

### **SaS/SiS Programme objectives/Activity lines**

With regard to the objectives of the **FP6-SaS Work Programme**, ESOF 2006 aimed to contribute to the promotion of public awareness of scientific and technological advances and a wider understanding of science and innovation cultures, and it is placed as a forum for stimulating young people's interest in science and increasing the attractiveness of scientific careers for young researchers. Specifically, ESOF 2006 contributes to topic "4.3.6.2 Mobilising European actors to develop and pursue strategic goals around a Science and Society agenda" by providing an independent arena bringing together a broad audience from science, politics and (civil) society. The specific combination of presenting excellent scientific research from all over Europe and engaging non-scientific stakeholders presents a unique outreach opportunity.

ESOF 2006 can be interpreted as a tool for fostering an innovation-friendly environment by raising awareness for the role of science and technology for a knowledge based society, by bringing together science and business partners and by engaging scientists and policy-makers in a debate about the governance of science, technology and innovation and the way that science and technology can contribute to Europe as competitive region of the world.

ESOF 2006 is explicitly positioned as a means to further develop the **European Research Area**. It is positioned as a forum for discussing issues related particularly to the governance of science in the European Research Area (ERA) by bringing together scientists and public policy-makers. By attracting a very broad audience ESOF 2006 contributes to the ERA policy objective of achieving "optimal access to and circulation and transfer of scientific knowledge".

### **SaS Action Plan**

The project explicitly addresses the objectives of the **Science and Society Action Plan** following four approaches:

- Open Call with selected themes: contributions have been invited within specific themes relevant to the objectives of the Science and Society Action Plan, such as, for instance, disaster research, security and safety, social integration, evidence-based policy-making and the role of beliefs and social norms as well as, science policy for a competitive Europe.
- "Bottom-up" and "top-down" sessions: most sessions and contributions have been selected through the Open Call, while a small number of sessions have been decided "top-down" by the Programme Committee, in order to ensure that key topics, such as the European Research Council, a European Charter for Researchers or issues related to patenting of scientific results will be discussed. A few session slots have also been kept open until shortly before the ESOF 2006 for recent scientific results or "hot" topics.
- Young Scientists' Career Programme: activities have been organized with a focus on the specific needs of young researchers, such as skill-development workshops and networking events, in order to broaden scientific perspectives at an early stage and to provide support for developing successfully scientific careers. Proposals for the Career Development Programme have been e.g. collected "bottom-up" from young scientists' networks.
- Outreach Activities: as part of the Open Call, outreach activities have been invited, such as interactive exhibitions, talks and presentations, which offer a hands-on experience of scientific research and encourage the public to join the debate and engage in critical discussions related to issues of modern science and technology.

Thus, ESOF 2006 has addressed the three main objectives of the Science and Society Action Plan through the broad scale and scope of the ESOF event and various bottom-up approaches involving the participant of the ESOF conference in the development of the programme (*promote a scientific and education culture*) and through fostering the debate about the relationship between science and society (*bring science policies closer to citizens and put responsible science at the heart of policy making*).

## **PROJECT RESULTS AND OUTCOMES**

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### **Main achievements according to project objectives**

ESOF 2006 took place from July 15th – 19th 2006 in Munich and attracted a total of 60,000 visitors attending the broad range of events and workshops. With regard to the multi-disciplinary aspirations, the conference programme included scientific sessions on a broad range of topics from various disciplines, ranging from topics such as "Combining Science Cultures" to "Earth and Environment" and "Science and Society". The Career Programme aimed at reaching young researchers has featured 11 events with a diverse range of topics, such as "Bringing science to the people" to orientation and networking events for early career researchers from different science and engineering disciplines. The Outreach Programme geared towards engaging the general public can also be regarded as a success with 18 distinct events ranging from hands-on experiments open to everyone to special events for young persons with a broad range of topics (e.g. "Take a trip to the frontiers of science", "Galaxies, quarks and the shareholder value" or "Basic research – basis of our knowledge"). The further development of the European Research Area is not accurately measurable on the basis of one event but it is assumable that ESOF 2006 contributed en route toward a comprehensive research and researcher network. ESOF 2006 was held at the same time as the German National Science Week with a range of additional events focusing on advancements in computer science and its applications in everyday life.

### **Main achievements according to Programme objectives**

ESOF 2006 also contributed to the programme objectives of the Science and Society Work Programme by contributing to a better understanding of SaS issues throughout FP6 and specific actions. The broad range of topics, innovative formats of presentation and diverse audience can be regarded as a successful instrument to promote public awareness of science and innovation culture. An active dialogue between science and society was facilitated through the Outreach Programme. Especially the objective of stimulating young people's interest in science was addressed by various events of the Outreach Programme and particularly through the Programme for early career researchers. Finally, due to the fact that ESOF 2006 is part of a biennial ESOF conference series, it contributes to the mobilisation of European stakeholders to develop and pursue strategic goals for a European Science and Society agenda. Through the range of events the participants, researchers and stakeholders have obtained a better understanding of SaS issues through FP6 and specific actions discussed in the workshops.

### **Main achievements according to SaS Dimensions**



ESOF 2006 thus has been relevant for developments in **Open Access**. The discursive analysis of the Open Access dimension in the European science-society programme has shown that the debate about Open Access has gained particular importance around 2010. Since ESOF 2006 was the second conference in the ESOF series, it can be argued that it was a pioneer event, contributing to the evolution of the Open Access strategy in the European Research Area. Especially since ESOF has been positioned as an independent forum and because it has managed to attract a broad range of world-class scientists, high level public policy-makers and relevant stakeholders from civil society, it can be seen as an important milestone for the debate about science and society in general. It is also an important forum, because it contributes to a broader understanding of Open Access in science and research, i.e. not just as an instrument for making research results accessible (in this case through presentations rather than publications) but also as a way of engaging science and society in an active dialogue.

### **DISSEMINATION AND ENGAGEMENT ACTIVITIES AIMED AT TRANSFERRING THE PROJECT RESULTS TO WIDER COMMUNITIES**

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Dissemination and engagement activities were an integral part of the project. The ESOF2006 conference aimed at disseminating research results to a broad European audience and to engage the (local) public in the debate about science and technology and society. Thus, the project can itself be described as a transfer activity. Apart from dissemination activities as part of the ESOF2016 conference programme itself; there have been various efforts to inform the scientific audience and public about the conference and its specific topics. There have been:

- 15 press releases, 15 media briefings (each attended by app. 60 journalists),
- 900 press items covering ESOF 2006 (761 in German national press outlets and 139 in international press),
- A project website, which was updated daily,
- A mailing list with app. 14,000 subscribers,
- Communication material, which was distributed to schools and higher education organisations, government agencies, NGOs and civil society organisations.

As an integral part of ESOF 2006, there has also been an extensive outreach programme in the hosting city of Munich with exhibitions and presentations open to the general public. Since ESOF 2006 has been part of the wider, biennial ESOF conference series, a continuous dialogue and engagement across different European hosting cities are guaranteed.

### **PROJECT IMPACTS**

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As part of the ESOF conference series, ESOF 2006 aimed at contributing to a mobilisation of relevant European actors to develop and pursue a strategic agenda with regard to science and society. It is hardly possible to measure the **potential impact** of a single event such as ESOF 2006 and assess how exactly it contributed to such a long-term and broad endeavour. However, as part of the ESOF conference series, it is safe to say that the institutionalisation of a permanent Supervisory Board in charge of overseeing ESOF as a whole and deciding on strategic guidelines is one element that contributes to the potential longer-term impact of the ESOF initiative. Due to the large and diverse audience, the innovative event formats and outreach activities, ESOF 2006 can be assumed to have had a respective impact on improving the science and society dialogue – even though none of the project participants (organisers of ESOF 2006) itself is a central participant in the Framework Programme network. The decidedly multidisciplinary approach in designing the conference programme can also be seen as an important contribution to broadening perspectives across the natural and social sciences.

With regard to the project's aim of involving a broad variety of European actors in the process of developing a strategic science and society agenda and to contribute to the formation and further development of the European Research Area, the way that ESOF 2006 (and other ESOF conferences) are organized can be seen as a best practice. While there is a permanent ESOF Supervisory Board, each conference is organized by a local organizing committee. This governance structure does improve outreach and networking during ESOF conferences and beyond. In specific the local organisation is improving the outreach towards the general public.

ESOF 2006 has had **impacts** that can be classified into the following dimensions:

- **Scientific impact:** as a conference, the scientific impact of ESOF 2006 cannot be measured based on publications. However, the contributions to the conference programme have been submitted from scientists from a variety of scientific disciplines and they have been selected based on a peer review process involving high-level experts from the respective fields. Therefore, it can be assumed that the scientific impact has been high and due to the large audience scientific results have been made available to relevant peers and researchers (as well as the public) from other areas of expertise. ESOF 2006 has also been supported by and reported on in the science journal 'Nature' (amongst others).
- **Social impact:** since the aim of ESOF 2006 has been to showcase Europe-wide scientific achievements and foster an open science and society dialogue, social impact has been a key objective of the project. A substantial part of the project has thus been dedicated to dissemination activities (see the previous section).

A social media analysis has not been performed for ESOF 2006 (no data available). Data is however available for two later conferences, i.e. ESOF 2010 and 2012. In both cases, ESOF has featured prominently in different social media. Especially Twitter has become more important (816 tweets on ESOF 2010 and 18,093 tweets on ESOF 2012). Facebook, web fora and blog posts have also been used to communicate about ESOF. In general, the largest shares of posts have been made in the respective host country (ESOF 2010: 22% of posts from Italy; ESOF 2012: 59% of posts from Ireland). Overall, social media awareness was not limited to Europe, but included posts from all over the world. The social media analysis also shows that in the aftermath of the two ESOF conferences, the number of posts quickly decreased. Thus, social impact remains mostly limited to the time of the event.

- **Public Policy impact:** The policy impact of ESOF depends on the topics discussed at the specific conference and on the involvement of public policy-makers in the conference programme. As part of the dissemination activities around ESOF 2006, information material has been distributed also to government agencies and public administrations. As part of the ESOF 2006 programme a number of sessions were specifically geared towards fostering dialogue between scientists and policy-makers, e.g. a scientific session titled "What do you expect from science?" with representatives of national science ministries and the European Commission, or an exhibition by Directorate General Research.
- **Organisational and Institutional Impact:** The organizational impact remains limited to the strengthening of the EuroScience association as an important representation of scientists and researchers in Europe. During ESOF conferences many formats and events are dedicated to networking (especially among junior researchers) and capacity building for cooperation between scientists and policy-makers. However, there is no evidence for systematic institutionalisation of new networks or platforms as a follow-up to ESOF 2006 and other ESOF conferences.

#### PATH-BREAKING ADVANCEMENTS

ESOF 2006 (and the ESOF conference series as a whole) can be seen as a pioneering organisational arrangement in the European Science System and Research Area, because it provides an independent forum for the science and society dialogue. An outstanding characteristic is the combination of showcasing high-level science and research and scientific results, while at the same time developing a multi-disciplinary programme and formats for engaging the general public into the ESOF conference. In this way, ESOF 2006 goes beyond a limited understanding of open access to science and has found a way to enable a mutual dialogue between science and society stakeholders and experts.

#### BEST PRACTICES

At ESOF 2006, a number of EU funded projects (funded in other thematic areas than the science-society programme) used the opportunity to present project results to a broad audience in the science and society context and thus to build cross-thematic bridges as part of the decidedly interdisciplinary programme structure of the ESOF conferences. For instance, the FP7 project iNSPiRe funded under the energy theme was part of a session on digitalization and the availability on environmental data. This can be valued as a partnership of a project in the energy theme with the science-society thematic area.

#### EU ADDED VALUE OF THE PROJECT

The EU added value of the ESOF 2006 project is clearly visible. As a truly European forum that aims at offering an independent space for further developing the European Science System and Research Area. The EuroScience association is founder and central supervisor of the ESOF conference series.

#### PARTICIPANTS AND RESEARCH TEAM

##### Participants

Number of participants: 2

Number of countries involved: 2

	Type	Country	Role	Previous participations to FP
Wissenschaft im Dialog gGmbH		Germany	Coordinator	1
European Association for the Promotion of Science and Technology		France	Participant	2

### **DELIVERABLES AND PUBLICATIONS**

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<i>DELIVERABLE NO.</i>	<i>DELIVERABLE NAME</i>	<i>DUE DATE OF DELIVERY (month)</i>	<i>ACTUAL SUBMISSION DATE: (month)</i>
<i>D1</i>	<i>Mid-term report*</i>	<i>6</i>	<i>-</i>
<i>D2</i>	<i>Mid-term report*</i>	<i>6</i>	<i>-</i>
<i>D3</i>	<i>Mid-term report*</i>	<i>6</i>	<i>-</i>
<i>D4</i>	<i>Mid-term report*</i>	<i>6</i>	<i>-</i>
<i>D5</i>	<i>Marketing report*</i>	<i>12</i>	<i>-</i>
<i>D6</i>	<i>Final report*</i>	<i>12</i>	<i>-</i>

\*All reports have been disseminated to the programme participants and Commission Services, they are not publicly available.

### **MAIN SOURCES**

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Description of Work (DoW)  
Science and Society Reporting Questionnaire  
ESOF 2006 Programme Book  
ESOF 2006 website

## **GLOBAL MODEL AND OBSERVATORY FOR INTERNATIONAL RESPONSIBLE RESEARCH AND INNOVATION COORDINATION "RESPONSIBILITY"**

**Framework Programme: FP7**

**Action line/Part: 5.1 A more dynamic governance of the science and society relationship**

**Activity: 5.1.3. Strengthening and improving the European science system**

**Area: 5.1.3.3 Encouraging the debate on information dissemination, including access to scientific results and the future of scientific publications, taking also into account measures to improve access by the public.**

**Dimension: OPEN ACCESS AND OPEN SCIENCE**

**Tool: Coordination and support action**

**Project Call For Proposal: FP7-SCIENCE-IN-SOCIETY-2012-1**

**Status: ongoing**

**Total cost: 1.779.733,4**

**Total EU funding: 1.484.427**

**Website: <http://responsibility-rri.eu/>**

**Period: 01/02/2013- 31/01/2016**

**Subjects: Scientific Research**

**Project ID and Acronym: ID: 321489, ACRONYM: RESPONSIBILITY**

### **BACKGROUND AND CONTEXT OF THE PROJECT AND STRATEGIC NEEDS**

In an increasingly globalised world, Responsible Research and Innovation (RRI) as transparent and interactive process could not be constrained within the boundaries of one state or region. Consideration of responsibility has to be embedded in research and innovation procedures, so as to cope with the future needs and goals of the wide society. Thus, there is a need for dedicated efforts to engage stakeholders in an international cooperation for creating a common language for RRI in different parts of the world.

### **SPECIFIC PROJECT OBJECTIVES**

RESPONSIBILITY aimed to create a network of stakeholders that would develop and diffuse a common understanding of RRI between different actors in Europe and around the globe. The project specific objectives were:

- To provide a virtual Forum and Observatory of RRI as means to develop a structure that would support the enhancement of a common understanding and the diffusion of knowledge as well as the deployment of practical tools;
- To provide a set of recommendations and tools to policy makers and active RRI stakeholders to take the necessary measures to nest RRI into products and services from the very beginning ("efficient RRI by design").

The project's specific objectives were relevant for:

- **ERA:** The project was expected to support the development of the ERA by addressing the ERA priority of achieving "more effective national research systems". In fact, the development of a common understanding of RRI nested in products and services would have improved their quality and sustainability. Furthermore, by ensuring the open access to results via its website, the project contributed to the ERA priority of ensuring "optimal circulation, access to and transfer of scientific knowledge".
- **Innovation Union:** The IU Communication made explicit reference to the need for taking collective responsibility for a strategic, inclusive and business-oriented research and innovation policy within the EU. By focusing on the RRI concept, the project aimed to make societal actors and innovators mutually responsive to each other in achieving an ethically acceptable and sustainable research and innovation process. In doing so, it was expected to contribute to the IU objective of "Increasing social benefits" deriving from innovation thus achieving a real social innovation.

### **SaS/SiS Programme objectives/Activity Lines**

The project was in line with the SiS programme objective of creating a more secure and constructive environment for researchers and society. By encouraging the networking and adoption by stakeholders of a common concept of RRI, it would favour the integration of societal concerns and ethical principles in individual conducts as well as in products/services. The efforts to provide open access to information and scientific results could also ease the communication with society for a deeper understanding of societal instances and needs.

### **SaS Action Plan**

The project contributed to the SaS Action Plan objective of raising the public awareness by ensuring a systematic public dissemination of EC research activities (Action 10). RESPONSIBILITY made information and project contents available through the website to the whole society. At the same time, the information dissemination was expected to

increase the accountability of researchers and to embed the RRI concept in the research process ("efficient RRI by design") thus fostering the ethical dimension of science and policies.

## PROJECT RESULTS AND OUTCOMES

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### Main achievements according to Project objectives

The project achieved all the objectives defined in the Description of Work. The main results included:

- A mapping the existing networks of RRI, as well as the scientific and stakeholders community as part of the effort for the coordination of network of networks;
- An online RRI Forum as a self-regulated, open and transparent space comprising 3 major components: political, industrial and societal;
- Holistic RRI Observatory platform (<http://observatory-rri.info>) with already more than 500 items;
- A concrete exploitation and sustainability plan, in order to materialise a plan for the sustainability of the Observatory, beyond project's duration.

### Main achievements according to Programme objectives

The activities implemented by RESPONSIBILITY were in line with the objectives set at activity line/programme level. By providing structures and tools for debate, the project supported the exchange of information and good practices among different RRI project teams and stakeholders networks concerned with RRI. Both the Forum and the Observatory were intended to harness the involvement of the broadest network of researchers and innovators to attain common results. To achieve a better coordination in the scientific community, RESPONSIBILITY organised joint workshops, conferences and the construction of a pool of case studies via the active engagement of stakeholders.

### Main achievements according to SiS Dimensions

The project contributed to the evolution of the **open access and open science dimension** within FP7 SiS programme from accessibility to research data towards a concept of open science fostering the transparency of the whole research process. To ensure open access to project results, the RESPONSIBILITY website provided a portal (entrance point) for the Forum and the Observatory and a knowledge repository base of all the public deliverables and reports. To move towards the concept of open science, the project provided an online RRI Forum which allowed the interaction and joint deliberation by the main stakeholders concerned with RRI (including business, policy makers, researchers and civil society) thus increasing the overall transparency of the process.

The project also contributed to the **dimension of ethics** by making the societal actors and innovators mutually responsive in ensuring (ethical) acceptability, sustainability and societal desirability of the innovation process and products, as required by the notion of RRI.

## DISSEMINATION AND ENGAGEMENT ACTIVITIES AIMED AT TRANSFERRING THE PROJECT RESULTS TO WIDER COMMUNITIES

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Many dissemination initiatives were foreseen at different stages and processes throughout the project implementation targeting global research communities, RRI stakeholders and any interested audience. As announced, the dissemination activities could be clustered by objective in: dissemination for awareness; dissemination for understanding; and dissemination for action. The project dissemination means included leaflets, posters and brochures and were expected to be made available for download through the RESPONSIBILITY website. Looking at the dissemination activities already implemented during the 1<sup>st</sup> reporting period, the project used several channels for the online communication and feedback strategy:

- A public website (<http://responsibility-rri.eu/>) and a Workspace file sharing structure for internal document exchange (<http://responsibility-rri.eu/team/main.php>);
- Social media (Facebook, Twitter LinkedIn). For instance, Project's Facebook (<https://www.facebook.com/responsibility.rri>);
- 5 Responsibility E-Newsletters;
- 2 major workshops (Forum Workshop in Brussels, Belgium in February 11, 2014; the 1<sup>st</sup> Asia Pacific Responsible Business Innovation 2014 in Kuching, Malaysia in February 19, 2014 with participants from outside Europe);
- Press Release "RESPONSIBILITY Project kick off" in May 22, 2013;
- A project official flyer explaining the structure and scope of the project.

As for the degree of effectiveness, the dissemination means used by the project allowed fast virtual communications with other RRI projects as well as various stakeholders (science, industry, policy maker, CSO, NGO, students etc.).

## PROJECT IMPACTS

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In terms of potential impacts, the project was expected to enable citizens (and all other stakeholders as well) to be better informed, to better understand and to participate more comprehensively and efficiently in the research and innovation processes. The potential impact of the project was high due given that the majority of the consortium partners were in the top 10% of the most central institutions in the FP7 (9 out of 13). In detail, 5 were in the 5% while 3 reached the top 1% (*betweenness centrality*). In addition, the University of Oxford was ranked in a top position (37) by the Leiden University based on the excellence of research and collaborations. Based on the work done so far, the projects was expected to achieve impacts over a longer period by maintaining the Observatory of RRI.

The project actual impacts achieved can be clustered into:

- **Social media impact** there were a total of 11 posts according to the social media listening buzz results which confirmed the echo achieved by the project through the use of different social media.
- **Scientific impact** a total of 7 publications were reported but no citations were counted in our records.
- **Institutional and organisational impact** the project paid attention to the enhancement of networks and it developed online platforms as virtual interaction places for stakeholders. Therefore, no new institutional arrangement was established.
- **Policy impact** the project delivered a Policy paper about gaps (or problems) in the security domain where RRI was intended as valuable tool to effectively address such gaps. The Security Policy Brief (PB) aimed to contribute to the on-going public discourse and development of security policies and recommendations. RESPONSIBILITY issued a set of recommendations to policymakers to encourage a multi-disciplinary approach in security policies and decision making. However, no reference to actual policy impacts at national level was found in the project reports.

## PATH-BREAKING ADVANCEMENTS

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The project made advancements in the involvement of stakeholders. It opened a constructive dialogue with business and other stakeholders through project workshops and the active Go5 participation in ESOF2014 session "Building a governance framework for RRI" and the online forum. Through the events, it gathered stakeholders' views and positions areas and learned from the participants about business concerns and ideas/views on new proposals about RRI tools, processes and shared value to society. Furthermore, the online Forum allowed remote participation, mutual interaction and deliberation among heterogeneous stakeholders concerned with RRI (e.g. business, policy makers, researchers and civil society) through different interaction modalities (e.g. Caucus Process, Suggestion Board, Partnership Initiative) As key innovative features, the online Forum has been integrated with a Tacit Knowledge modules and the online Citizen Jury, representing a powerful eGovernment tool.<sup>56</sup>

## BEST PRACTICES

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RESPONSIBILITY co-ordinated different activities with 4 relevant RRI projects (Res-Agora, GREAT, Progress, RRI-Industry) sharing a common concern to improve the understanding of the emerging concept of RRI, and with other projects: FRRICT, RRI-Tools, ADIS, FEARLESS, InREAKT, ASSERT. Co-ordination activities started actually during the preliminary negotiation process to the project as the fundaments for a common understanding and a joint development were agreed in a joint meeting with the coordinators of the 4 granted RRI projects Go4-Group of Four (Res-Agora, GREAT, Progress, RESPONSIBILITY) in June 25, 2012, in Brussels. Coordination was ensured through joint workshops, conference attendance and regular exchange of information. Some concrete actions have been already implemented:

- A joint cluster RRI-Workshop where the 5<sup>th</sup> RRI Project (RRI-Industry) was introduced starting the Go5 in September 12, 2013 in Brussels;
- A Glossary task force including members from all five RRI projects (Go5) nominated in September 2013;
- The Pre-forum Workshop with coordinators and WP leaders of Go5 to discuss the structure and main themes of the Forum and the Observatory, in Brussels (February 11, 2014);
- A joint presentation of Go5 with a large audience at ESOF 2014, RRI Governance Session, in Copenhagen (June 25, 2014);
- A joint "Responsible Research and Innovation-Shaping New Horizons" Conference organised by the GO4 projects' Consortiums in January 14-15, 2016.

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<sup>56</sup> For further information: <http://responsibility-rri.eu/wp-content/uploads/2016/06/Responsibility-Poster-RCIS.pdf>

In terms of results, the 1st version of RRI Glossary based on some themes (RRI Security, Automation) was developed in the view of a "Common RRI Glossary" merging glossaries or terms from other RRI related projects. One of the major achievements of the core team of RESPONSIBILITY with the coordinators of the initial RRI projects Res-Agora, GREAT, Progress, RRI-Industry, FRRIICT and significant industry partners was the attempt to prepare and submit the proposal "RESPONSIVE" (Creating a training and dissemination toolkit RESPONSIVE to stakeholders' needs) as a part of the sustainability concept of the Forum and Observatory as well as the training materials to make them available to the research community, industry and policy makers.

## EU ADDED VALUE OF THE PROJECT

RESPONSIBILITY made important steps towards the development of a common understanding of RRI beyond national differences. The value of the project stems from the controversies and ethical issues resulting from the application of certain strands of research – for instance, genetically modified organisms (GMO), nanotechnology or human ICT implants – which required a unique approach as underlined by project participants during the conferences/events.<sup>57</sup> The risk in case of no EU intervention in the field, was that RRI was restricted to academic research environments with no connection to the context of industrial and commercial research. The project supported the involvement of stakeholders from the industrial and commercial sectors to reconcile their economic interests with ethical motivation.

## PARTICIPANTS AND RESEARCH TEAM

### Participants

Number of participants: 13

Number of countries involved: 10

	Type	Country	Role	Previous participations to FP
FRAUNHOFER GESELLSCHAFT ZUR FORDERUNG DER ANGEWANDTEN FORSCHUNG	REC	DE	Coordinator	1,205
ARBEITER SAMARITER BUND WIEN GESUNDHEITS UND SOZIALE DIENSTE GEMEINNUTZIGE	OTH	AT	Participant	1
DE MONTFORT UNIVERSITY	HES	GB	Participant	24
GEOIMAGING LIMITED	PRC	CY	Participant	10
KOKURITSU DAIGAKU HOJIN KYUSHU KOGYO DAIGAKU	HES	JP	Participant	1
SIGNOSIS	PRC	BE	Participant	6
TECHNISCHE UNIVERSITÄT BERLIN	HES	DE	Participant	201
UNIVERSITÀ DEGLI STUDI DI SIENA	HES	IT	Participant	62
UNIVERSITÉ DE NAMUR	HES	BE	Participant	35
UNIVERSITI MALAYSIA SARAWAK	HES	MY	Participant	2
UNIVERSITY OF CHILE	HES	CL	Participant	11
UNIVERSITY OF OXFORD	HES	GB	Participant	719
UNIVERSITY OF THE AEGEAN	HES	GR	Participant	31

### Team Composition

Team Size: members\*

GENDER		
Female	Male	Unknown

<sup>57</sup> For further information: <http://responsibility-rri.eu/responsible-research-and-innovation-in-mining-workshop-in-santiago-chile/>



Stock-taking and meta-analysis of Science in Society projects throughout FP6 and FP7  
Final Case Studies

36,0%		64,0%		0	
<b>SENIORITY</b>					
Average		Junior		Senior	
0		0		100%	
<b>PhD</b>					
No			Yes		
28,0%			72,0%		
<b>BACKGROUND</b>					
Applied Sciences	Health Sciences	Humanities & Social Sciences	Natural Sciences	Unknown	
0,0%	4,0%	48,0%	0,0%	0,0%	

\*The data are based on the analysis of the provided project's Description of Work.

### DELIVERABLES AND PUBLICATIONS

DELIVERABLE NO.	DELIVERABLE NAME	DUE DATE OF DELIVERY (month)
D1.1	Project Management Guide	2
D1.2	1st Periodic Report	18
D1.3	Final Report	36
D1.4	Quality Assurance & Risk Management Plan	5
D2.6	Report on network of networks	6
D2.7	Analytical Grid Report With Annex: Glossary RRI Security, Automation	8
D2.8	RRI Pool of cases & their application	18
D2.9	Theoretical landscape (White Paper) with Annex: International Organisations with RRI interests and competencies	18
D3.10	Forum descriptive Report	18
D3.11	Forum implementation	20
D3.12	Briefings Report	26
D3.13	RRI package including guidelines	34
D4.14	Observatory descriptive Report	18
D4.15	Recording mechanism Report	34
D4.16	Observatory of RRI	33
D4.17	Monitoring report	35
D4.18	RRI Guidelines/ Code of Conduct (Specific)	35
D4.19	Observatory Handbook with Annex: Common Glossary of RRI	35
D5.20	Requirements for assessment	25
D5.21	Assessment report	35
D6.22	Dissemination and exploitation strategy	3
D6.23	Policy Brief: RRI for Security	6
D6.24	Project dissemination dossier	35
D6.25	Dissemination and exploitation activities report	35
D6.26	Event Proceedings	35
D6.27	Exploitation & Sustainability Strategy	34

Publications no.	PUBLICATION	LINK (when available)
1.	D 4.1 Observatory descriptive report	<a href="http://publica.fraunhofer.de/documents/N-323768.html">http://publica.fraunhofer.de/documents/N-323768.html</a>
2.	D2.3 RRI pool of cases & their application	<a href="http://publica.fraunhofer.de/documents/N-323770.html">http://publica.fraunhofer.de/documents/N-323770.html</a>
3.	D2.4 Theoretical landscape - White paper	<a href="http://publica.fraunhofer.de/documents/N-323769.html">http://publica.fraunhofer.de/documents/N-323769.html</a>



Stock-taking and meta-analysis of Science in Society projects throughout FP6 and FP7  
Final Case Studies

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<i>Publications no.</i>	<i>PUBLICATION</i>	<i>LINK (when available)</i>
4.	<i>D6.2 policy brief: RRI for security</i>	<a href="http://publica.fraunhofer.de/documents/N-323762.html">http://publica.fraunhofer.de/documents/N-323762.html</a>
5.	<i>D6.3 Project Dissemination Dossier Part 1: 1st Period</i>	<a href="http://publica.fraunhofer.de/documents/N-323759.html">http://publica.fraunhofer.de/documents/N-323759.html</a>
6.	<i>D.2.1 Network of networks</i>	<a href="http://publica.fraunhofer.de/documents/N-323771.html">http://publica.fraunhofer.de/documents/N-323771.html</a>
7.	<i>Global model and observatory for international responsible research and innovation coordination: Presented at the 1st Asia Pacific Responsible Business Innovation 2014 Workshop, February 19th, 2014 Kuching, Malaysia</i>	<a href="http://publica.fraunhofer.de/documents/N-323756.html">http://publica.fraunhofer.de/documents/N-323756.html</a>

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**MAIN SOURCES**

RESPONSIBILITY (2013). D6.1 Dissemination and Exploitation Strategy.  
RESPONSIBILITY (2014). D1.2 1st Periodic Report.  
RESPONSIBILITY (2016). D6.3 Dissemination Dossier.

## **THE EUROPEAN SCIENCE COMMUNICATION WORKSHOPS "ESCW "**

**Framework Programme: FP6**

**Action line/Part: PART C: STEPPING UP THE SCIENCE/SOCIETY DIALOGUE AND WOMEN IN SCIENCE**

**Activity: 4.3.4 Scientific and technological culture, young people, science education and careers**

**Area: 4.3.4.1 Promoting science and scientific culture**

**Dimension: OPEN ACCESS AND OPEN SCIENCE**

**Tool: Specific Support Actions**

**Project Call For Proposal: FP6-2003-SCIENCE-AND-SOCIETY-7**

**Status: -**

**Total cost: 323.760**

**Total EU funding: 323.760**

**Website: <http://2015.eswc-conferences.org/program/workshops-tutorials>**

**Period: 01/07/2005- 31/05/2008**

**Subjects: Information and Media - Scientific Research - Social Aspects**

**Project ID and Acronym: ID: 516861, ACRONYM: ESCW**

### **BACKGROUND AND CONTEXT OF THE PROJECT AND STRATEGIC NEEDS**

Researchers – from the natural sciences and elsewhere – have been under increasing pressure to communicate to citizens and generally to audiences without a high level of technical expertise through media. Although communication skills were relevant for European scientists, during their professional development, young scientific researchers received poor training in communication, which was mainly intended to provide basic skills elements (e.g. presenting, writing). There was no specific room for science in training programmes for media professionals and, at the same time, the leading scientific societies and academies in Europe showed scarce interest in providing communication training for science and technology researchers. Therefore, there was a need to improve science communication through mutual understanding between scientists and media and to involve researchers in a two-way communication with citizens through public dissemination, dialogue and debate. The project "European Science Communication Workshops"<sup>58</sup> proposed to develop and deliver science communication courses as a strategic solution to answer scientists' need to communicate better and effectively.

### **SPECIFIC PROJECT OBJECTIVES**

The ESCW brought together science communication teachers across Europe to exchange information and best practices, to raise key European issues in the training of young scientists in communication with the media, policy makers and the general public. The proposal specifically aimed to:

- Develop science communication training courses on communication skills;
- Produce materials that could be used widely to deliver such courses;
- Deliver a number of trial courses so that the approaches and materials could be refined;
- Increase the number of science communication teachers who can provide effective training to science professionals;
- Produce flexible, modular science communication training courses that could be provided on a self-sufficient, not-for-profit basis, beyond the life of the proposed funding period;
- Act as a resource for other science communication teachers on a Europe-wide basis.

These science communication workshops targeted science and technology researchers on EC Framework networks to improve science communication. The ESCW built on and extended the successful workshops of the European Network of Science Communication Teachers, ENSCOT.<sup>59</sup> The project's specific objectives were relevant for:

- **ERA:** as underlined in the DoW, the workshops were also specifically designed to raise the European dimension of the research, contributing to popularise the scientific education and culture in Europe (including

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<sup>58</sup> Henceforth the European Science Communication Workshops will be referred to as ESCW.

<sup>59</sup> Funded under the FP 5 "Raising Public Awareness of Science and Technology", ENSCOT had 5 member states participating while 12 countries were eligible for FP 6 programme.

ethical aspects of science). Training workshops in science communication were seen as important parts of the ERA infrastructure<sup>60</sup>.

- **Innovation Union:** By helping science researchers to meet the communication requirements of projects and hence increasing of the knowledge base within the European Research Area, the ESCW would also contribute to the IU strategic objective of strengthening the innovation and competitiveness in Europe.

### **SaS/SiS Programme objectives/Activity Lines**

The project was relevant for the programme objective to increase public awareness of scientific and technological advances and citizens' concerns about their societal impacts. In fact, the science communication workshops aimed at improving the communication skills of science and technology researchers. The project replied to the specific call for proposals "stimulating initiatives for the development of training schemes or methodologies to enhance the communication skills of scientists" (under 4.3.1.2)<sup>61</sup>. An enhanced dialogue with the audience was key to transfer the research contents and results thus raising the public awareness of the science dimension in society.

### **SaS Action Plan**

Science communication training was deemed essential to meet three objectives of the SaS Action Plan: promoting scientific education and culture in Europe; a science policy closer to the citizens; responsible science at the heart of policy making. A better communication by researchers could impact both on the public and on policy makers as well. In detail, the project strongly addressed Action 10 of the Science and Society Action Plan (Ensure systematic public dissemination of EC research activities) which pursued to systematically disseminate to the public in various forms the scientific and technical progress achieved under the Framework Programme. By including dialogue and debate, the project could also contribute to bring science policies closer to citizens as called for by the Commission strategy announced in the Plan.

## **PROJECT RESULTS AND OUTCOMES**

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### **Main achievements according to Project objectives**

The main outcome of the project was the development of 12 ESConet Modules which were integrated into a framework to provide effective science communication training. The project was initially designed to carry out three training workshops during 30 months. Thanks to the ability to mobilise additional resources, the project duration was extended for 38 months, on a no-extra-cost basis. The most relevant achievements of the project were:

- The delivery of three core training workshops, two additional workshops to train the new generation of trainers, and a series of ESConet-related workshops in conjunction with other partners;
- The production of modules which could be used as teaching materials for future workshops for scientists, scientific networks and interested science communicators;
- The trial of all of the modules with workshops of researchers and trainers;
- The training of a new generation of young science communication trainers for community building. Training new trainers also took place informally, on the job, as the project matured;
- The continuous editing of the modules, on the basis of comments received from the network as well as the experience gained by ESConet in delivering the modules in actual workshops;
- The running the science communication workshops on a not-for-profit basis. Such workshops addressed more difficult communication situations as well as critical issues on the social, cultural, political, and ethical dimensions so as to prepare the audience for the dialogue and debate that characterised the relation between science and society.

At the beginning of the project, more advanced and discursive modules were expected to be the most difficult ones but the feedback gathered by participants in the workshops revealed that discussion on broader themes was appreciated more than restricted views on science topics. As underlined in the Publishable Report, the ESConet established «a unique, cross-European collaboration between science communication researchers, scientists, science information officers, science journalists and policy-makers».<sup>62</sup>

### **Main achievements according to Programme objectives**

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<sup>60</sup> Description of the Work (page 6).

<sup>61</sup> 2004 "Science and Society" Work Programme.

<sup>62</sup> Publishable Report Page 2.

As regards the expected result for the project, it succeeded in attaining an enhanced interest in scientific culture, education and careers, particularly among young people. Throughout the workshops held by ESConet, the focus was on empowering researchers to develop basic forms of written and oral communication with media and society at large. Especially early-career researchers had the chance to work closely with colleagues from across Europe, establishing contacts, enhancing skills, discussing best practices, and developing a critical thinking about the role of science in society. The objective to develop training schemes or methodologies to enhance the communication skills of scientists was not met by focusing just on basic practical skills, but by building a framework to reflect upon the wider social, cultural, political and ethical dimensions of scientific work. Such effort was intended to bring societal concerns at the centre of the scientific discourses.

### **Main achievements according to SaS Dimensions**

ECSW contributed to the open access SaS dimension but it applied an “old” concept of the dimension mainly focused on public the accessibility of research data. In fact, the teaching materials were made available for future workshops for scientists, scientific networks, and interested science communicators willing to use the modules in their own communication training.

The project also contributed to science literacy SaS dimension due to attention paid to the training of young scientists in communicating with the media, policy makers and the general public. The project did not focus just on “skills-based” provision but was part of a wider community-building, where science communication and education were intended as participatory processes. In fact, all science communication teachers and professionals participating to the project were involved in the module development and were encouraged to take part to training workshops delivered to EC-funded scientific networks. The main achievement in community building was the training of a new generation of young science communication trainers who would be a vector to further disseminate the project results.

### **DISSEMINATION AND ENGAGEMENT ACTIVITIES AIMED AT TRANSFERRING THE PROJECT RESULTS TO WIDER COMMUNITIES**

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ESCW planned to make use of a variety of communication and dissemination media in order to facilitate its business (e.g. Web-based materials, mailing lists, workshop materials, CD-ROM, peer-reviewed journals, publications of professional societies, European Journals). The dissemination activities carried out during the project were related to the workshops which were the core activity of the network. The project was advertised in advance of the 10th annual Public Communication of Science and Technology (PCST-10) conference: conference attendees could sign up to participate in a special ESConet workshop held after the conference. The dissemination means used were fewer than expected:

- the project Website, which reached more than 180 trainees and the general public;
- 6 talks given and 6 Conference Presentations, reaching an audience of 30-70 people each;
- a commentary article on the network’s activities submitted by the project Director at the journal Science Communication

The type of audience targeted by the dissemination activities included, besides the workshop trainees, researchers, and professionals from higher education as well as the wider general public.

After the project implementation, the modules produced could be flexibly combined to design science communication training workshops according to the time available and researchers’ needs. As follow-up to the project, conducted in 2009–10, the ESConet team delivered two series of three-day science communication workshops in both ‘basic’ science communication practices and ‘advanced’, deliberative communication and engagement. Approximately, 300 researchers mainly in early-to-mid career and coming from almost all EU MS took part in these workshops (many in both series).<sup>63</sup>

### **PROJECT IMPACTS**

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As outlined in the DoW, the ESCW were expected to have direct impacts on working scientists and communication professionals involved in the European centres in science communication training. The potential impacts would affect three main areas: the European scientific community (through long-term free access to training courses and networks of scientists); the science communication community (thanks to the existence of national outlets for science communication); European citizens (due to the incorporation of science-society issues into communication skills training). The project consortium was composed of many teachers and professionals with a strong experience in the full range of science communication/science policy due to membership in international organisations and national/local bodies connected to science communication. Looking at the project consortium, 8 participants were in the top 5% of

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<sup>63</sup> Further information available on <https://esconet.wordpress.com/>

the most central organisations in the overall FP network, the half of which belonged to the top 1% (betweenness centrality). Two Universities appeared in the Leiden ranking for the quality of publications and scientific production.<sup>64</sup> Thanks to the centrality of the majority of participants, and to the scientific attractiveness of two universities, the project was expected to have high potential impacts.

Other **actual impacts** could be clustered into:

- **Scientific impact:** an article dealing directly with the ESConet Experience was published in September 2009<sup>65</sup> which was quoted in other 8 articles.<sup>66</sup>  
**Social media impact:** There was no relevant echo according to the Social media listening buzz results. This may be in part due to the technology and social media development at the time of the project implementation (2005-2008).
- **Institutional and organisational impact:** At its meeting in December 2007, ESConet established itself as a not-for-profit Community Interest Company (CIC), based in the United Kingdom. After the project ending, the training modules, which were intellectual property of ESCW project members, were made available for future application in communication training. In fact, they were used in other workshops organised for Belgian space scientists from universities, industry and the EC, and for scientists covered by the Bulgarian and Ukrainian academies of science.
- **Policy impact:** the ESCW network represented many countries with a different portfolio of science communication courses with the aim to allow a wide sharing of best practices and knowledge. The project outcomes were seen as particularly useful to countries such as Greece, Slovakia and HE, where science communication courses were at the early stage of development.

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### PATH-BREAKING ADVANCEMENTS

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The ESCW adopted an innovative approach to training in science communication, primarily with regard to the content of modules. The workshops conducted did not focus just on well-known basic communication skills, but tried to address more difficult communication situations (e.g. communicating risk, interaction between scientific information and lay knowledge) and invited to consider more theoretical issues affecting the scientists' daily work (i.e. social, cultural, political, and ethical dimensions). In addition, the ESCW created a genuine multicultural and multidisciplinary environment by pooling together both trainers and trainees from a variety of Member States across the European Union. For this reason the project represented a development in traditional science communication training in the context of science and society dialogue.

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### BEST PRACTICES

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The ESCW project can be considered a best practice in terms of capability to establish links with other project for long-term wider impacts. ESConet cooperated with other EU scientific research projects aiming at training young scientists in communication skills and at supporting an inclusive attitude towards public engagement in science. Building upon its results, training workshops were organized for researchers from the FP6-funded networks EuroPlaNet (planetary science) CareMan (health), Lipgene (nutrition and obesity) and QUASAAR (molecular spectroscopy). ESConet saw a further development under the FP7 project 'ESConet Trainers'<sup>67</sup> and continued to carry out activities to deal with the needs of researchers across a wide variety of natural, applied and social science disciplines. With regard to the achievements under FP7, the network pointed out that there has been « "mass" science communication training on a scale never achieved before »<sup>68</sup>, since a total of 367 training places were delivered, reaching 231 researchers from 34 countries (including two non-European countries).

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### EU ADDED VALUE OF THE PROJECT

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The ENSCOT network mobilised considerable relevant resources already existing in the European Union to provide value to participants and to the wider society. The project pooled together experienced trainers covering 17 higher education and science institutions concerned with science communication, across 12 EU countries. The added value of the project lied in the **comprehensive nature of the consortium**, which had a wide experience in a full range of

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<sup>64</sup> The University of Barcelona was ranked 321 while the University of Zagreb ranked 687.

<sup>65</sup> <http://scx.sagepub.com/content/31/1/116.abstract>

<sup>67</sup> Project ID: 230456

<sup>68</sup> Quote from the website: <https://esconet.wordpress.com/about/>

science communication/science policy as well as communication in mass media (even in theatre through University of Paris-7). This allowed the European dimension to be raised and explored, with direct benefits for students needing assistance and for early-career scientists from various disciplines, who had the opportunity to work together in an environment outside their day-to-day scientific work, developing not only communication skills but also potential future cross-country research collaborations.

## **PARTICIPANTS AND RESEARCH TEAM**

### **Participants**

Number of participants: 17

Number of countries involved: 12

	Type	Country	Role	Previous participations to FP
university College London	HES	GB	Coordinator	163
Dublin City University	HES	IR	Participant	18
Pompeu Fabra University	HES	ES	Participant	28
University Denis Diderot	HES	FR	Participant	1
Bulgarian Academy Of Sciences	REC	BG	Participant	1
Forschungszentrum Jülich GmbH	REC	DE	Participant	73
University Autònoma, Barcelona	HES	ES	Participant	61
Centre D'etudes En Communication Publique	REC	FR	Participant	1
University of Peloponnese	HES	GR	Participant	2
Hellenic Open University	HES	GR	Participant	2
University of Zagreb	HES	HR	Participant	1
Scuola Internazionale Superiore di Studi Avanzati Di Trieste	HES	IT	Participant	13
Associazione Observa	HES	IT	Participant	1
Associao Ciencia Para o Desenvolvimento	OTH	PT	Participant	1
Slovenian Science Foundation	OTH	SI	Participant	1
Dalarna University	HES	SE	Participant	1
University of Glamorgan	HES	GB	Participant	5

### **Team Composition**

Team Size: members\*

GENDER				
Female		Male		Unknown
32,0%		56,0%		13,0%
SENIORITY				
Average		Junior		Senior
17,0%		13,0%		70,0%
PhD				
No			Yes	
63,0%			37,0%	
BACKGROUND				
Applied Sciences	Health Sciences	Humanities & Social Sciences	Natural Sciences	Unknown
0,0%	2,0%	33,0%	0,0%	48,0%

### **Dimension averages**

\*The data are based on the analysis of the provided project's Description of Work.

### DELIVERABLES AND PUBLICATIONS

DELIVERABLE NO.	DELIVERABLE NAME	DUE DATE OF DELIVERY (month)	ACTUAL SUBMISSION DATE: (month)
1	ESCW curricula (final)	30	
2	ESCW workshop materials (final)	30	
3	2 ESCW (basic) science communication workshops	13-20	
4	Science communication workshop	20-24	
5	Final Report	30	

#### Publications

Fahy, D., Miller S. and The ESConet Team (2009). Can Science Communication Workshops Train Scientists for Reflexive Public Engagement?: The ESConet Experience, *Science Communication*, 31: 116-126

#### MAIN SOURCES

ESConet Final Plan for Using and Disseminating the Knowledge (2008).

ESConet Publishable Final Activity Report (2008).

ESCW Description of the work (2004).

ESCONET Website <https://esconet.wordpress.com/>

ESCONET Trainers Final Report (2012) as retrieved from:  
[https://esconet.files.wordpress.com/2012/09/esconet\\_trainers\\_final\\_report.pdf](https://esconet.files.wordpress.com/2012/09/esconet_trainers_final_report.pdf)

## Open Access (Open Science): Science in Society



## **SUPPORT FOR ESTABLISHMENT OF NATIONAL/REGIONAL SOCIAL SCIENCES DATA ARCHIVES - "SERSCIDA"**

**Framework Programme: FP7**

**Action line/Part: 5.1 A more dynamic governance of the science and society relationship**

**Activity: 5.1.3 Strengthening and improving the European science system**

**Area: 5.1.3.1 Encouraging the debate on information dissemination, including access to scientific results and the future of scientific publications, taking also into account measures to improve access by the public**

**Dimension: OPEN ACCESS AND OPEN SCIENCE**

**Tool: Coordination and support action**

**Project Call For Proposal: FP7-SCIENCE-IN-SOCIETY-2011-1**

**Status: -**

**Total cost: 699.025,80 €**

**Total EU funding: 625.573 €**

**Website: [www.serscida.eu](http://www.serscida.eu)**

**Period: 01/01/2012 – 30/06/2014**

**Subjects: Innovation and Technology Transfer**

**Project ID and Acronym: 288985, SERSCIDA**

### **BACKGROUND AND CONTEXT OF THE PROJECT AND STRATEGIC NEEDS**

The lack of broad and open access to scientific data, especially primary data, in the field of social science research has been a key issue in the Western Balkan (WB) countries Bosnia and Herzegovina, Serbia, and Croatia. Social science research carried out in this period in the Western Balkan region is highly valuable for the European (and wider international) scientific community, because it offers relevant insights on issues regarding societies in transition, historical legacies and post-communist struggles for societal and economic transformation. However, it became apparent that data collected on these issues in the Western Balkan countries was mostly unavailable to the wider scientific community and even threatened to be lost forever due to a lack of adequate social science data archives. There were no established practices, let alone the infrastructure and capacities to build data archiving systems that could help to preserve and archive primary data in line with existing European standards. For the most part, primary data remained in possession of individual researchers and research organisations that had carried out specific research projects. Therefore, the SERSCIDA project aimed at addressing this particular issue by attempting to support the establishment of data archiving capacities based on tested models from other European countries and using the current best practices of the Council of European Social Sciences Data Archives (CESSDA) organisations.

### **SPECIFIC PROJECT OBJECTIVES**

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The SERSCIDA project was designed as a strategic project for supporting the cooperation and exchange of knowledge between European member countries associated within CESSDA and the Western Balkan countries in the field of social science data archiving. The project addressed issues regarding the potential use of state of the art information and communication technologies, in particular digital archiving technologies, for the benefits of scientific research and exchange of knowledge. The four main objectives of the SERSCIDA project as laid out in the Project Description of Work (DoW) are:

- To support the establishment of social science data archives in order to increase the level of sharing and preserving data collected through research in Western Balkan countries;
- To identify potentials and infrastructures for the implementation of social science data archives in the Western Balkan countries involved in the project;
- To enhance the exchange of knowledge and sharing of data collected through social science research in the Western Balkan countries and the EU CESSDA countries;
- To increase the level of understanding and support for open data access policies through involvement of relevant policy decision-makers in the Western Balkan countries.

### **SaS/SiS Programme objectives/Activity Lines**

With regard to the **FP7-SiS Work Programme**, the SERSCIDA project aimed to contribute to a more dynamic governance of the science and society relationship in general, and specifically to the objectives under Activity 5.1.3.3 "Encouraging the debate on information dissemination, including access to scientific results and the future of scientific publications, taking also into account measures to improve access by the public". In the SERSCIDA project these objectives have been addressed by a number of activities at different levels:

- At the policy level: by providing the space for dialogue among relevant stakeholders and by organizing an enhanced information and communication exchange with important ministries in WB countries, as well as involving important European stakeholders;

- At the thematic level: by identifying the existing potentials with a sound methodology, as well as through a consultative processes within joint meetings/conferences, and development and transfer of existing strategies of CESSDA to the new countries;
- At the level of human and institutional resources: by building capacities in Western Balkan countries with interested stakeholders for development of data archives through capacity building and trainings as well as working visits to CESSDA organisations;
- At the level of the beneficiaries involved: by organizing and implementing networking opportunities (trainings, workshops, conference);
- At the level of public relations: by quality dissemination and media activities adding to the overall understanding of the relevance of active policies to support open access to scientific data and information.

The SERSCIDA project is explicitly positioned as a means to further develop the **European Research Area** through building up state of the art social science data archiving capacities and practices in the Western Balkan countries. With reference to CESSDA standards, the SERSCIDA project aims towards enabling open access to all information and collected social science data. Prototype databases as result of the SERSCIDA project will be based on an open access platform – researchers and other interested stakeholders will be able to access and download data online, free of charge, after signing an end-user contract. The SERSCIDA project thus contributes to the overall objective that „the European Research Area must support seamless and transparent access to, use and re-use of and trust in scientific data“. Furthermore, SERSCIDA aims at strengthening knowledge exchange and joint organisational learning in the European Research Area by enabling exchange and dissemination of knowledge and good practice (know-how of CESSDA members participating in the project), and the organization and management of joint activities, e.g. initiatives for establishing national/ regional social sciences data archives.

The contribution of the SERSCIDA project to the Innovation Union is not made explicit in the Description of Work (DoW) and the project reports. However, the SERSCIDA project is highlighting the significance of information and communication and digital archiving technologies for the purpose of scientific research, contributes to an improved use of such digital technologies, as well as the exchange of knowledge, information and data through cooperation and networking between European member states and Western Balkan countries. The SERSCIDA project thus contributes to the Innovation Union, as for instance pointed out in the European Union’s 2020 Flagship Initiative a “Digital Agenda for Europe”.

### **SaS Action Plan**

The project explicitly addresses the objective of the Science and Society Action Plan following Action 10:

By preserving and further disseminating research results and building up networks researcher, stakeholder and public communities will get access to Western Balkan (WB) research activities and revers WB will improve the access to EC research activities through the increase in level of understanding and support for open data access policies.

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## **PROJECT RESULTS AND OUTCOMES**

### **Main achievements according to project objectives**

According to the final report, the SERSCIDA project was successful and produced the planned outcome. A broad range of activities has been carried out:

- Mapping of the existing context, needs and prerequisites for the institutionalisation of social science data archives in the three Western Balkan countries.
- Bringing together of key international, European and regional experts in social science data archiving and services in order to raise awareness of the project itself to key stakeholders, such as researchers, public policy-makers, universities, statistics institutions and research think-tanks, as well as to share the mapping reports and expand partnership at the national level in each of the Western Balkan countries.
- Definition of a detailed action plan that will guide the institutionalisation of social science digital data archives in three Western Balkan countries.
- Development of training materials that can be used for training of future staff of the newly established social science data archives and services in the Western Balkan countries, but also other future data archives/services elsewhere.
- Capacity-building in the field of digital data archive/ service organisation: data archiving processes, managing data, cooperation with data users, policy development, fundraising and partnership with data generating institutions. Six trainings and visits to four CESSDA member countries were organised for future data archive/ services managers, IT experts and public policy-makers from the three Western Balkan countries, while SERSCIDA project partners also took part in CESSDA trainings and conferences.
- Identification of required documents and materials that will be necessary to support the functioning of digital data archives/services and development of specific documentations for that purpose.

- Development of a website for the three Western Balkan countries that will host the prototype database.
- Development of a prototype database that will be used in the future work of the three Western Balkan countries' social science digital data archives/ services.
- Dissemination of project achievements through the development of a project website, regular meetings with key national stakeholders and a Dissemination Meeting.

In line with the objectives specified in the Description of Work, the SERSCIDA project has thus successfully:

- Raised awareness of the economic benefits to data sharing in the Western Balkan countries;
- Promoted the value and benefits of digital data archives as gateways to social science data and as capacity building for social science research in the Western Balkan countries;
- Opened local discussion and debate about the collaborative activities that could be undertaken between data archives and national statistical organisations;
- Engaged with local funding bodies to support their understanding of the costs and benefits of supporting digital data services;
- Put in place the operational foundations for three new European digital data services.

#### **Main achievements according to Programme objectives**

With regard to the objectives of the FP7-SiS Work Programme, the SERSCIDA project has contributed to the development of a European science system that is more transparent and accessible for all. Deploying the technical preconditions and building organizational and institutional capacities for social science data archives in the Western Balkan countries is a very concrete contribution in that respect. Furthermore, cooperation between the three Western Balkan countries and with CESSDA countries, as well as the involvement of a broad range of stakeholder, can be seen as an important step in encouraging the debate on open access to scientific data and results in Europe, as foreseen under FP7-SiS Activity 5.1.3.3. Intrinsically tied with this encouraged debate on information dissemination, improved public access to scientific results and enhanced self-regulation are archived with and within the participating countries.

#### **Main achievements according to SiS Dimensions**

The SERSCIDA project has been relevant to developments with regard to the Open Access Dimension of the Science in Society Programme. It marks the continuous shift towards a more comprehensive understanding of what open access to science means, i.e. not only the availability of scientific results and publications, but also a transparent way of accessing scientific data as the basis for scientific knowledge production. In the SERSCIDA project, the core aim was to provide access to primary data and thus to create a knowledge base from which a broad range of stakeholder can benefit. The SERSCIDA project also highlights the importance of information and communication technologies for digital science data archiving and services and what they can achieve for the development of the European science system, a topic that is most important for Open Access policies in the European Research Area (ERA).

#### **DISSEMINATION AND ENGAGEMENT ACTIVITIES AIMED AT TRANSFERRING THE PROJECT RESULTS TO WIDER COMMUNITIES**

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Dissemination and engagement activities were crucial for the success of the SERSCIDA project and thus WP 6 was dedicated to supporting dissemination through a project website and a final dissemination conference. The focus was on enabling exchange of information between European member states and the Western Balkan countries and identifying future steps for the Western Balkan countries working towards joining CESSDA, in order to widen the European network for access to and preservation and dissemination of social science data.

The following dissemination actions were carried out over the course of the project:

- Development of a project website (<http://www.serscida.eu/en/>);
- Four National Round Tables in Banja Luka, Belgrade, Sarajevo and Zagreb in 2012/ 2013;
- International Conference in Belgrade in 2013, attended by 108 participants (researchers, CESSDA country representatives and representatives of national statistical offices, national libraries and university libraries and computing and digital archiving centres);
- Final dissemination meeting in Sarajevo in 2014.

Apart from these dissemination activities, the meetings and interviews carried out in order to map existing potentials for the institutionalisation of social science digital data archives in the Western Balkan countries also proved to be important as an opportunity to exchange information among relevant stakeholders. The dissemination actions as mentioned in the final dissemination plan of the SERSCIDA project are in line with the dissemination activities, which were originally foreseen in the Description of Work (DoW). In summary it is to be noted that the project has conducted all foreseen disseminations and was able to go beyond these.

## PROJECT IMPACTS

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The SERSCIDA project was expected to improve the cooperation and exchange of knowledge between the European member countries associated within CESSDA and the Western Balkan countries in the field of social science digital data archiving and services. By developing a prototype digital archiving system, by capacity building for social science data archiving and exchange with CESSDA countries, important steps towards this goal have been achieved. Five out of seven project partners belong to the top 10% of most central organisations in the overall European Framework Programme network. It can thus be assumed that their impact on other relevant organisations is relatively high.

The SERSCIDA project has also produced more direct, actual impacts:

- **Scientific impact:** By developing prototype archives together with stakeholders and by providing training and other forms of capacity building, the project has generated a committed and enthusiastic core of data archivists in a region of Europe where these skills were sparse. This will lead to an increasing amount of data available for research use and it will stimulate the development and expansion of data analytical and methodological skills amongst the research community. The SERSCIDA project was a capacity building project and not a scientific research project. There is no scientific publication mentioned as outcome of the SERSCIDA project.
- **Social media impact:** The social media analysis shows that a relevant social media echo (mainly on Twitter) has occurred around the International Conference in Belgrade in 2013. However, with around 100 participants in this conference the number of tweets stayed moderate. Similarly, the project website showed a trend of increasing visits especially around specific events, such as the Dissemination Meeting in 2014. However, due to the broad dissemination activities, networking with CESSDA country stakeholders in the field of digital scientific data archiving and services and the development of trainings and training materials, the social impact can be assessed as overall relatively high.
- **Policy impact:** Public policy-makers were involved in the project at various stages and the SERSCIDA project was generally met with much appreciation and interest by governments as well as scientific stakeholders in the Western Balkan Countries. National policy-makers and government officials as well as representatives of the European Commission were present at the SERSCIDA international conference and major meetings.
- **Institutional and organisational impact:** the SERSCIDA project has definitely resulted in the creation of new networks in the field of social science digital data archiving and services across Europe. Knowledge and experience have been shared between the CESSDA institutions and the newly established institutions in the Western Balkan countries. There have been joint design and implementation activities from which all partners in the SERSCIDA project benefitted. A shared commitment towards establishing social science digital data archives has developed in these newly formed networks.

It is of course difficult to measure the larger-scale impact of SERSCIDA with regard to the Open Access debate. Even in the context of the SERSCIDA project, doubts about data security and a lacking willingness of researchers to make their primary data publicly available were outlined as critical issues. For instance, this was one of the most discussed themes at the International Conference. The digital data archives established in the three Western Balkan countries as a result of the SERSCIDA project remain fragile until they have gathered a critical mass of social science data – however, they have a good chance of being successful and this will be important for the development of a more open, transparent and accessible, science system in the Western Balkan countries and beyond.

## PATH-BREAKING ADVANCEMENTS

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Since Croatia is still a new EU member state and Serbia and Bosnia and Herzegovina are still in the process of European Union accession, they are confronted with challenges of harmonization of norms and standards with the ones of the European Unions, as well as exchange of good practices in scientific research and scientific data archiving and services. The SERSCIDA project can thus be seen as a valuable advancement towards the institutionalisation of long-term international cooperation with existing social science data archives in the European Union/ CESSDA countries. The project's most remarkable achievement is an increased awareness of digital data archives as gateway to social science data to facilitate social science research. Its main aim was to support data sharing within and between the Western Balkan countries. Another key advancement resulting from the SERSCIDA project is the strong relationship between the newly established data archiving and service institutions and CESSDA organisations. With a view to the overall Open Access dimension it is also noteworthy that SERSCIDA helped raise awareness of the need for open access policies in the social sciences.

## BEST PRACTICES

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The SERSCIDA project managed very well to include relevant stakeholders and to build on existing initiatives. For instance, SERSCIDA has been designed as a complementary project to the CESSDA-PPP (Preparatory Phase Project for a Major Upgrade of the Council of European Social Science Data Archives Research Infrastructures). It followed a differential approach for the Western Balkan countries, but depending on the previous achievements and networks established within the CESSDA-PPP project. In the Western Balkan countries that were already involved in the

CESSDA-PPP project, SERSCIDA was presented as a continuation and development of CESSDA-PPP activities. While in those Western Balkan countries that did not participate in CESSDA-PPP, SERSCIDA reworked the activities and applied the same methodologies used as by the CESSDA-PPP project. With regard to stakeholder involvement, SERSCIDA worked with regional science and research funding bodies to enhance their understanding of the costs and benefits of supporting sustainable data services and with national and regional statistical bureaus as important cooperation partners for any social science data service. In the latter case, the SERSCIDA project cooperated with another FP7 project ("Data Without Borders"), which invited the SERSCIDA project partners to participate in their regional workshops dedicated to the institutionalisation and strengthening of co-operation between data archive/ service institutions and national and regional statistics organisations. This cooperation also heightened the awareness of SERSCIDA project partners on the importance of partnerships with national and regional statistics organisations regarding the development and functioning of social science data archives and services. The SERSCIDA project can be regarded as a best practice case, in so far as it has inspired similar projects based on the SERSCIDA approach and project outcome, e.g. the EU project Seeds "South-Eastern European Data Services" ([www.seedsproject.ch](http://www.seedsproject.ch)).

### EU ADDED VALUE OF THE PROJECT

The comparative analyses of the potential for institutionalizing social science digital data archiving and services, in the early stages of the SERSCIDA project, showed that there was little awareness of the benefits that social science data archiving and data sharing in the Western Balkan Countries could potentially bring. The project helped to overcome institutional as well as financial barriers for social science data service provision in the Western Balkan countries and helped to build capacities to integrate institutions in three Western Balkan countries into the social science data archiving and service system in the European Research Area. The engagement of respective institutions in CESSDA countries was crucial for the success of the SERSCIDA project.

### PARTICIPANTS AND RESEARCH TEAM

#### Participants

Number of participants: 7

Number of countries involved: 7

	Type	Country	Role	Previous participations to FP
<i>Univerzitet u Sarajevu</i>	HES	BA	Coordinator	8
<i>Goeteborgs Universitet</i>	HES	SE	Participant	179
<i>Univerza v Ljubljani</i>	HES	SI	Participant	159
<i>University of Essex</i>	HES	GB	Participant	57
<i>Sveuciliste u Zagrebu Filozofski Fakultet</i>	HES	HR	Participant	5
<i>Fondation Suisse pour la Recherche en Sciences Sociales</i>	REC	CH	Participant	3
<i>Institut Ekonomskih Nauka</i>	REC	RS	Participant	1

#### Team Composition

Team Size: members\*

GENDER				
Female		Male		Unknown
41%		47%		12%
SENIORITY				
Average		Junior		Senior
6%		18%		76%
PhD				
No		Yes		
76%		24%		
BACKGROUND				
Applied Sciences	Health Sciences	Humanities & Social Sciences	Natural Sciences	Unknown
23,53%	0%	71%	0%	6%

\*The data are based on the analysis of the provided project's Description of Work.

## DELIVERABLES AND PUBLICATIONS

DELIVERABLE NO.	DELIVERABLE NAME	DUE DATE OF DELIVERY (month)	ACTUAL SUBMISSION DATE: (month)
D1.1	Report from the kick-off meeting	3	
D1.2	External review report	12	
D1.3	External review report	24	
D2.1	Analysis of existing potentials for establishment of social sciences digital data archive in B&H	10	
D2.2	Analysis of existing potentials for establishment of social sciences digital data archive in Croatia	10	
D2.3	Analysis of existing potentials for establishment of social sciences digital data archive in Serbia	10	
D3.1	Conference report	16	
D4.1	Detailed action plan for establishment of social sciences digital data archives	17	
D4.2	Training modules for establishment of social sciences digital data archives	20	
D4.3	Reports from trainings organized	24	
D5.1	Documents and materials for social sciences digital data archive	27	
D5.2	Report on website for database	28	
D5.3	Report on prototype database	30	
D6.1	Project website	4	
D6.2	Dissemination meeting report	30	

## MAIN SOURCES

Description of Work (DoW)  
Project deliverables and final report  
Expert review reports on project deliverables  
Project website

## Science and Ethics: Science and Society

## **ETHICAL DILEMMAS DUE TO PRENATAL AND GENETIC DIAGNOSTICS: INTERDISCIPLINARY ASSESSMENT OF EFFECTS OF PRENATAL AND GENETIC DIAGNOSTICS ON COUPLES IN DIFFERENT EUROPEAN CULTURES - "EDIG"**

**Framework Programme: FP6**

**Action line/Part: PART B: Responsible research and application of science and technology**

**Activity: 4.3.2 Ethics**

**Area: -**

**Dimension: Science and Ethics**

**Tool: Specific Targeted Research Projects**

**Project Call For Proposal: FP6-2004-SCIENCE-AND-SOCIETY-9**

**Status: Closed**

**Total cost: € 1 099 995**

**Total EU funding: € 1 099 995**

**Website: -**

**Period: 01/09/2005 - 31/08/2008**

**Subjects: Ethics, Emerging Technologies, Scientific Research**

**Project ID and Acronym: 16716 - EDIG**

### **BACKGROUND AND CONTEXT OF THE PROJECT AND STRATEGIC NEEDS**

In most Member States, prenatal genetic diagnostics is now a well-established practice of the public health care system. However, major achievements in genetic research also have the effect of producing ethical dilemmas in which a person has a strong moral obligation to choose one of two alternatives for action.

These dilemmas are particularly challenging in the field of prenatal diagnostics (PND). PND can confront women and their partners with ethical dilemmas concerning the life and death of their unborn children and their well-being even with abnormalities and suffering. Clinical data from different therapeutic offices and institutions in many European countries have pointed to severe difficulties suffered by some women and their partners as they are faced with a genetically-indicated interruption of pregnancy.

In this context, an important aspect is the conflict of individual beliefs and obligations and those of society's specific cultures. These dilemmas often remain latent, creating distress for couples and sometimes constituting burdens on their relationships. More research is needed to identify those with vulnerability to psychopathology as a consequence of an abortion after PND results or of giving birth to severely handicapped children.

### **SPECIFIC PROJECT OBJECTIVES**

#### **Project objectives**

The project sought to investigate the ethical dilemmas in prenatal diagnostics. The project also examined existing care systems across participating centres.

The specific objectives of the EDIG project were:

- **Objective 1:** To study the ethical dilemmas of couples (women and their partners) arising from prenatal genetic diagnostics (PND) in different European cultures.
- **Objective 2:** To diagnose risk and non-risk groups of women and men after prenatal genetic diagnostics:
  - Statistical analyses of the questionnaire data were expected to allow the identification of "extreme groups" in the sample: couples which develop adequate coping strategies compared to those with less adequate ones to deal with the dilemma due to prenatal and genetic diagnostics.
- **Objective 3:** To develop professional counselling procedure for couples after PND:
  - Insights for an improvement in counselling procedures for experts (medical doctors, social workers, psychologists) were expected to be published.
- **Objective 4:** To connect expert knowledge on ethics and ethical conflicts (and their consequences for psychic health) collected in different scientific disciplines (such as philosophy, psychoanalysis, medicine in the field of PND, genetic researchers).
- **Objective 5:** Dissemination towards the scientific community: To initiate and deepen scientific and public debates on the ethical dilemmas of modern societies due to modern genetics and medical technologies and the danger of individualizing these dilemmas.
- **Objective 6:** Dissemination towards medical staff and patients:
  - Brochures for genetic researchers, medical staff, organisations for the handicapped, politicians, religious institutions and journalists were expected to be published.



- Psychological practice of prenatal genetic diagnostics was expected to be improved, quality standards of professional practice were expected to be developed within the different EU countries.
- **Objective 7:** Dissemination towards national Ethic Committees.
- **Objective 8:** To offer training possibilities and develop guidelines for medical doctors and staff in centres for prenatal diagnostics.

### **SaS/SiS Programme objectives/Activity Lines**

The objective of EDIG was to investigate the ethical dilemmas in prenatal diagnostics. The objectives of EDIG were thus consistent with the SaS objective of conducting research on ethics in relation to science, technology developments and their applications. The project also aimed at developing counselling procedures for couples after PND, disseminating knowledge towards doctors and patients, developing public debates on ethical dilemmas of modern societies due to modern genetics and medical technologies. It was indeed in line with the Activity Line Objectives as it ensured through dialogue and monitoring that science progresses in harmony with ethics.

### **Innovation Union Objectives**

Increasing social benefits is an objective of the Innovation Union. In that respect, EDIG's purpose was consistent with the Innovation Union objectives as it aimed to investigate the ethical dilemmas in prenatal diagnostics.

### **European Research Area Objectives**

Optimal transnational co-operation is an objective of ERA. In that respect, EDIG's purpose was consistent with the Innovation Union objectives as it aimed to involve eleven participants from six European countries to investigate the ethical dilemmas in prenatal diagnostics.

### **SaS Action Plan**

The project was in line with the SaS Action Plan and in particular with:

- Action 29, as it helped set up information and documentation for ethical issues by studying the ethical dilemmas of couples arising from prenatal genetic diagnostics (PND) in different European cultures and by developing professional counselling procedure for couples after PND;
- Action 30, as it aimed at establishing public dialogue in Europe on the ethical dilemmas of modern societies due to modern genetics and medical technologies, through the organisation of public debates;
- Action 31, as it developed guidelines for medical doctors and staff in centres for prenatal diagnostics and thus raised researchers' awareness of ethical issues.

## **PROJECT RESULTS AND OUTCOMES**

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### **Main achievements according to project outcomes**

On the basis of a review of the outcomes of EDIG, the project can be considered as a success:

- Concerning **objective 1**, some differences (e. g. the role of the doctor in the decision to undergo testing) as well as similarities (e.g. the positive attitudes towards prenatal testing in all centres) were observed between the different European cultures. These observations highlighted that while a cross-national, European policy regarding the practice of prenatal testing may be useful, cultural differences also have to be taken into account.
- Concerning **objective 2**, two subgroups were differentiated: one with conspicuous (positive) and one with inconspicuous (negative) findings in PND. Unexpected difficulties occurred in some centres, where researchers and hospitals had difficulties to cooperate, therefore efforts were made in other hospitals to recruit a larger number of women than expected. Different models of crisis interventions and consulting styles were observed and evaluated, and insights were integrated into new models of interventions during and after PND. The findings of the EDIG-study stressed the importance of supporting professionals in their skills to recognize women and couples who are at risk of developing long-term distress. A list of important risk factors (i.e. personality features and other characteristics that may adversely influence the processing of a conspicuous test result) was developed.
- Concerning **objective 3**, different perspectives on counselling were analysed, mainly versions of non-directiveness versus directiveness. There were strong ethical arguments in support of non-directive counselling: a version of non-directiveness, focusing not only on the absence of directive advices but also on the provision of psychosocial support and empowerment for a decision, was perceived as beneficial for patients. These issues were focused and discussed in a dedicated publication.
- Concerning **objective 4**, expert knowledge of the different participating disciplines was systematically collected in an electronic data base. Results of the interdisciplinary dialogue shaped the evaluation process and led to a productive dialogue between the disciplines. Discussions between study group members enabled

them to understand the fundamental scientific concepts and professional expectations and goals of different experts from different disciplines, and helped uncover ethical issues.

- Concerning **objective 5**, the final international conference in Frankfurt September 2008 represented an important activity to disseminate the results and insights of EDIG. Conference proceedings were published in order to further raise public and scientific awareness of the issue of PND and associated ethical dilemmas.
- Concerning **objective 6**, existing information brochures in the field of PND were collected. Findings of EDIG (including recommendations and guidelines for professional practice) were integrated into these brochures and in leaflets addressed to couples undergoing PND as well as for professionals in the field.
- Concerning **objective 7**, major findings from the EDIG-study were published in "Parliament Magazine" and "European Union" addressed to politicians and decision-makers in the EU. Results were also presented at the 12th Forum of National Ethics Councils (NEC-Forum) to the different national European Ethics Councils.
- Concerning **objective 8**, results underlined the importance of networks between different professional groups involved in prenatal testing, such as geneticists, gynaecologists, doctors specialised in prenatal testing, paediatricians, nurses, psychologists and midwives. Therefore, efforts were intensified to initiate or deepen existing networks between different health professionals, as was the case in the Frankfurt workshop. No evidence relating to training possibilities was identified in the Final Report.

On the basis of the information collected in the Final Report, evidence relating to training possibilities mentioned in the Objective 8 could not be identified.

#### **Main achievements according to Programme objectives**

As stated in the project objectives section and confirmed by a review of project deliverables, the EDIG project results were in line with the SaS objective of conducting research on ethics in relation to science, technology developments and their applications. Moreover, an expected impact of the programme was to create a deep and informed dialogue on ethical issues leading to responsible research in the ERA. Through the organisation of a final conference and the dissemination of results on ethical issues related to PND, the project contributed to this expected impact.

#### **Main achievements according to SaS Dimensions**

The EDIG project was in line with the Science and Ethics SaS dimension as it contributed to explore the relationship between ethics and science. The project focused on the identification of ethical issues for scientific research and on the alignment of research to ethical principles. It also underlined the ethical implications of innovation in technology, through a publication for experts related to different perspectives of counselling procedures after PND.

#### **DISSEMINATION AND ENGAGEMENT ACTIVITIES AIMED AT TRANSFERRING THE PROJECT RESULTS TO WIDER COMMUNITIES**

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As stated in the project's objectives, dissemination of results was focused on the scientific community, medical staff and patients and national Ethic Committees:

- Scientific community: workshops were organised in Linköping (September 2007) and in Frankfurt (March, 2008) to disseminate the results and insights of EDIG. A final joint publication was produced, as well as a second volume integrating additional papers presented at the final conference.
- Medical staff and patients: Findings from EDIG were integrated into information brochures and leaflets addressed to couples undergoing PND as well as for professionals in the field.
- National Ethic Committees: major findings from the EDIG-study were published in "Parliament Magazine" and "European Union" addressed to politicians and decision-makers in the EU. Results were also presented at the 12th Forum of National Ethics Councils (NEC-Forum) to the different national European Ethics Councils.

Globally, it seems that the planned dissemination objectives were achieved.

#### **PROJECT IMPACTS**

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##### **Potential impact** of the project

As many EU countries planned to establish prenatal genetic diagnostic centres, EDIG was expected to help establish an EU network, enabling better exchange of knowledge within the EU. EDIG was also expected to contribute to improving professional practice within the different EU countries, thus preventing so called "abortion tourism" within the EU due to very divergent practices between countries.

- **Betweenness centrality:** Six participants out of eleven were included in the top 1% in terms of centrality of the "Strengthening the ERA" network in FP6.
- **Scientific attractiveness:** The best ranked university participating in the project was the UNIVERSITY OF CAMBRIDGE (33<sup>rd</sup>).

- **Business attractiveness:** No highly ranked R&D investors participated in the project.

**Actual impact** as resulting from the project documents and/or commented during the interviews with project coordinators. Impacts can be clustered into four types:

- **Scientific impact:** No significant scientific publications.
- **Social Media impact:** No significant impact on social media.
- **Institutional and organisational impact:** Information brochures and leaflets addressed to couples undergoing PND, as well as for professionals in the field, were believed to have an impact on professional practice at the European scale.
- **Policy impact:** The EDIG-study, through publications and a presentation to national European Ethics Councils, was expected to have a significant impact of future policy-making at national and European scale.

### PATH-BREAKING ADVANCEMENTS

No specific path-breaking advancement was identified.

### BEST PRACTICES

No specific best practice was identified.

### EU ADDED VALUE OF THE PROJECT

Funding the EDIG project at EU-level was considered to be coherent since the aim of the project was to conduct research on prenatal diagnostics at European scale.

The team working at a European scale enabled the sharing of available knowledge, to create a long-lasting network between European prenatal diagnostics research teams, to cover more research topics during the project and to avoid duplication of efforts. The project undertaken throughout the EU also enables the project to benefit from a wider perspective for the production of guidelines and recommendations as well as ensuring a more efficient dissemination of results through participants' respective networks.

### PARTICIPANTS AND RESEARCH TEAM

#### Participants

Number of participants: 11

Number of countries involved: 6

	Type	Country	Role	Previous participations in FP
UNIVERSITÄT KASSEL	HES	DE	Coordinator	1
UNIVERSITÀ DEGLI STUDI DI PAVIA	HES	IT	Participant	1
JOHANNES GUTENBERG-UNIVERSITÄT MAINZ	HES	DE	Participant	1
UNIVERSITÀ CATTOLICA DEL SACRO CUORE DI MILANO	HES	IT	Participant	1
THE CHANCELLOR MASTERS AND SCHOLARS OF THE UNIVERSITY OF CAMBRIDGE	HES	GB	Participant	1
LINKÖPING UNIVERSITY	HES	SE	Participant	1
DEMOCRITUS UNIVERSITY OF THRACE	HES	GR	Participant	3
THE HEBREW UNIVERSITY OF JERUSALEM	HES	IL	Participant	1
EBERHARD-KARLS UNIVERSITÄT TUEBINGEN	HES	DE	Participant	1
SIGMUND-FREUD-INSTITUTE	HES	DE	Participant	1
NATIONAL AND KAPODISTRIAN UNIVERSITY OF ATHENS	HES	GR	Participant	51

#### Team Composition

Team Size: 24 members

Stock-taking and meta-analysis of Science in Society projects throughout FP6 and FP7  
Final Case Studies

GENDER				
Female		Male		Unknown
42%		58%		0%
SENIORITY				
Average		Junior		Senior
21%		4%		75%
PhD				
No				Yes
8%				92%
BACKGROUND				
Applied Sciences	Health Sciences	Humanities & Social Sciences	Natural Sciences	Unknown
8%	25%	21%	13%	33%

\*The data are based on the analysis of the provided project's Description of Work.

## DELIVERABLES AND PUBLICATIONS

### Deliverables

DELIVERABLE NO.	DELIVERABLE NAME	DUE DATE OF DELIVERY (month)	ACTUAL SUBMISSION DATE: (month)
1	Literature survey, establishment of electronic data base Order of organisational steps for proceedings in data collection, establishment of electronic data base for institutional factors in participating countries, discussion of results at the KICK OFF meeting in Frankfurt Translation of questionnaires into German, Greek, Hebrew, Italian, Swedish	M02	M05
2	Documentation of questionnaires sent	M02	M05
3	Report: precondition for study A and study B of the project: Ethical perspective, consents of local ethic committees, questions of ethical dilemmas	M03	M08
4	List of participating analysts	M03	M08
5	Documentation of first results of data from screening questionnaires identifying couples willing to be interviewed	M12	M12
6	Report: On the relation between medicine, psychoanalysis and ethics on the field of prenatal diagnostics	M12	M12
7	Documentation of interviews and questionnaire data	M03	M36
8	Documentation and analyses of interviews	M03	M36
9	Documentation of results of analyses (interviews and questionnaires)	M03	M36
10	Documentation of interviews and results	M06	M36
11a	Report: Ethical issues in genetic and prenatal diagnostics	M03	M36
11b	Installation of project-related electronic data base on ethical issues for all participating researchers assisted by UTUEB and SFI	M03	M36
12	Documentation of discussion, list of local interdisciplinary research group	M06	M06
13	Documentation of discussion of workshop and of work in interdisciplinary workshops	M12	M12
14	Documentation of results	M30	M30
15	Documentation of results of analyses of interviews of both sub studies	M30	M30

### MAIN SOURCES

EDIG Final Report

## **SEVENTH GLOBAL FORUM ON BIOETHICS 2006 - "FORUM-BIOETHICS-07"**

**Framework Programme: FP6**

**Action line/Part: PART B: RESPONSIBLE RESEARCH AND APPLICATION OF SCIENCE AND TECHNOLOGY**

**Activity: 4.3.2 Ethics**

**Area: -**

**Dimension: SCIENCE AND ETHICS**

**Tool: Specific Support Action**

**Project Call For Proposal: FP6-2003-ADHOC SUBV**

**Status: Closed**

**Total cost: € 166 000.00**

**Total EU funding: € 50 000.00**

**Website: <http://www.gfbr.global/past-meetings/7th-forum-karachi-pakistan-17-19-february-2006/>**

**Period: 15/01/2006 - 14/01/2007**

**Subjects: Information and Media - Scientific Research - Social Aspects**

**Project ID and Acronym: 32456, FORUM-BIOETHICS-07**

### **BACKGROUND AND CONTEXT OF THE PROJECT AND STRATEGIC NEEDS**

Between 1999 and 2008, the Global Forum on Bioethics in Research (GFBR) served as a global platform for the exchange of experience and sharing of expertise on research ethics, among a wide range of stakeholders from both developing and developed countries, including researchers, policy makers and ethicists. It also fostered debate on ethical, social, legal and policy issues related to international health research.

In total, nine GFBR meetings were held all over the world during the period. The programme was relaunched in 2014. Two meetings were held since then: in Mexico City (Mexico) in June 2014 and Annecy (France) in November 2015.

In 2006 the GFBR was organised in Karachi, Pakistan on the theme of ethical Issues in Research involving public health, health systems and health services. The forum was organised by the Aga Khan University and supported by eleven organisations and foundations, including the European Commission.

### **SPECIFIC PROJECT OBJECTIVES**

#### **Project objectives**

The FORUM-BIOETHICS 07 project aimed at managing the support provided to the Aga Khan University by the European Commission. No specific objectives were attributed to the project beyond the provision of funds to contribute to the organisation of the conference.

The objectives of the conference itself GFBR7 were to discuss through presentations and case studies ethical issues in public health, health systems and health services as well as provide recommendations on these issues.

#### **SaS/SiS Programme objectives/Activity Lines**

The aims of the GFBR7 were mainly relevant to the FP6 'Science and Society' programme objectives of bringing research closer to society and promoting responsible research and application of science and technology. Delegates at GFBR7 aimed at discussing issues of science and governance in relation to the conduct of research in developing countries, focusing specifically on ethical issues in public health research. Presentations and case studies over ethical issues in public health, health systems and health services were also consistent with the Activity Line Objectives, as they investigated the relation between science and ethics to ensure that they progress together in harmony.

#### **European Research Area**

As a result of the discussions held at the GFBR7, the project aimed to contribute to several of the ERA objectives, such as promoting more effective national research systems and transnational co-operation, as well as fostering circulation and transfer of scientific knowledge.

#### **SaS Action Plan**

The Seventh Global Forum for Bioethics in Research (GFBR) was attended by over 150 national and international delegates representing all continents of the world. Its objective was to discuss through presentations and case studies ethical issues on public health, health systems and health services and provide recommendations. For this reason, it can be assessed that the project contributed to establishing a public dialogue in Europe on ethics and science, as well as developing international dialogue on ethical issues, being in line with Action 31 and Action 33 of the SaS Action Plan.

### **PROJECT RESULTS AND OUTCOMES**

#### **Main achievements according to project objectives**

The purpose of the project consisted exclusively in providing funds to the university organising the GFBR7. No specific objectives were mentioned beyond a financial support to the organisation of the conference by the Aga Khan University.

Due to alleged misunderstandings concerning the conditions under which funds were to be granted, the coordinator in charge of the organisation of the conference in Pakistan explained during an interview that the EU did not provide the funds as initially planned. The coordinator blamed unclear rules, a lack of explanations and assistance on the EU's side, and stressed that among all the international institutions supporting the GFBR7, only the European Commission did not provide the funds as initially agreed.

Considering the particularity of the project and the lack of information, this section could not be further detailed.

**Main achievements according to Programme objectives** The project's aim consisted in helping research in developing countries to be funded in a responsible manner. Moreover, the project contributed to develop a deep and informed dialogue on ethical issues leading to responsible research and was indeed consistent with the European Research Area (ERA) objectives.

#### **Main achievements according to SaS Dimensions**

The purpose of the conference was to discuss, through presentations and case studies, ethical issues in public health, health systems and health services as well as to provide recommendations on these issues. Some of the discussed topics were related to the ethical implication of innovation in technology. For example, a discussion was generated on whether cluster randomized trial is ethically justifiable in certain cases. Discussions amongst the participants also helped to foster debates on ethics between civil society and researchers.

#### **DISSEMINATION AND ENGAGEMENT ACTIVITIES AIMED AT TRANSFERRING THE PROJECT RESULTS TO WIDER COMMUNITIES**

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Reports on the conference as well as the conference programme and case studies discussed were made available on the website of the Global Forum on Bioethics in Research: <http://www.gfbr.global/past-meetings/7th-forum-karachi-pakistan-17-19-february-2006/>.

According to the Description of Work, the project was also supposed to:

- Produce a CD with all case studies and supporting materials to be used for communication and training purposes;
- Publish a report of GFBR7 in the Journal of College of Physicians and Surgeon of Pakistan (JCPSP).

However, due to the partial collected information, evidence with regards to the two mentioned activities could not be identified.

#### **PROJECT IMPACTS**

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##### **Potential impact**

GFBR7 was therefore expected to significantly contribute to capacity development of ethics and policy expertise in relation to these issues. Its main potential impacts identified were:

- To stimulate discussion of the ethical and public policy issues surrounding public health research carried out in developing countries;
- To provide recommendations on the ethical principles and practical implementation of methods to ensure access to the fruits of biomedical research;
- To influence policy-makers, sponsors and others to consider issues related to public health research; and
- To develop capacity for research and training in the ethical issues related to public health research carried out in developing countries.

Due to the particularity of the project and the fact that the EU did not provide the funds, **actual impacts** cannot be assessed.

#### **PATH-BREAKING ADVANCEMENTS**

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No specific path-breaking could be identified.

#### **BEST PRACTICES**

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No specific best-practice could be identified.

## EU ADDED VALUE OF THE PROJECT

The EU added-value cannot be assessed as the EU was only expected to provide funds as a “supporter” to the conference. During an interview, the coordinator of the conference mentioned that the funds from the EU were finally not provided, due to misunderstanding in the conditions under which they were to be granted in terms of internal audits.

## PARTICIPANTS AND RESEARCH TEAM

### Participants

Number of participants: 1

Number of countries involved: 1

	Type	Country	Role	Previous participations to FP
AGA Khan University	HES	PK	Coordinator	1

### Team Composition

Team Size: members\*

GENDER				
Female		Male		Unknown
-		-		-
SENIORITY				
Average		Junior		Senior
-		-		-
No			Yes	
-			-	
BACKGROUND				
Applied Sciences	Health Sciences	Humanities & Social Sciences	Natural Sciences	Unknown
-	-	-	-	-

\*The data are based on the analysis of the provided project's Description of Work.

## DELIVERABLES AND PUBLICATIONS

It presents the documents produced by the project (intermediate and final report, dissemination report) and any publication produced as direct consequence of the project.

DELIVERABLE NO.	DELIVERABLE NAME	DUE DATE OF DELIVERY (month)	ACTUAL SUBMISSION DATE: (month)
1	7 <sup>th</sup> GFBR Meeting	2	2
2	Meeting Report in the Journal College of Physicians and Surgeons of Pakistan (JCPS)	-	-
3	Reports on the GFBR Website	-	-
4	Feature on key activities	-	-
5	Report on the GFBR7 Meeting for the GFBR7 Steering Committee and for future funding and non-funding partners	-	-
6	Evaluation Report of the GFBR7 Meeting to feed into the preparation of GFBR8.	-	14

## MAIN SOURCES

Global Forum on Bioethics in Research Website: <http://www.gfbr.global/about-the-gfbr/>  
CORDIS Database  
FORUM-BIOETHICS-06 Project Description of Work

*The Global Forum for Bioethics in Research: Past, present and future*, K Littler, J Millum, D R Wassenaar, for the GFBR Interim Steering Committee

<http://www.gfbr.global/wp-content/uploads/2016/03/The-Global-Forum-for-Bioethics-in-Research-Past-present-and-future.pdf>

**Interview:**

Dr Zulfiqar Bhutta, organiser of the the GFBR 7 Conference for the Aga Kahn University



## **GENOMICS AND BENEFIT SHARING WITH DEVELOPING COUNTRIES – FROM BIODIVERSITY TO HUMAN GENOMICS - "GENBENEFIT"**

**Framework Programme: FP6**

**Action line/Part: PART B: RESPONSIBLE RESEARCH AND APPLICATION OF SCIENCE AND TECHNOLOGY**

**Activity: 4.3.2 Ethics**

**Area: -**

**Dimension: SCIENCE AND ETHICS**

**Tool: Specific targeted research projects**

**Project Call For Proposal: FP6-2005-SCIENCE-AND-SOCIETY-14**

**Status: Closed**

**Total cost: € 548 639.00**

**Total EU funding: € 548 639.00**

**Website: <http://www.uclan.ac.uk/research/explore/projects/genbenefit.php>**

**Period: 01/09/2006 – 31/08/2009**

**Subjects:**

**Project ID and Acronym: 36691 GENBENEFIT**

### **BACKGROUND AND CONTEXT OF THE PROJECT AND STRATEGIC NEEDS**

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Benefit sharing has come to be increasingly debated internationally at the highest levels of policy making (WHO, WTO and WIPO). Despite the central significance of ethics in this context, ethical concerns have hardly been discussed nor researched in depth.

Benefit sharing occurs mainly in two areas:

- Human genetic banking for the purpose of pharmacogenomics or population genomics research (human genetic resources);
- Use of traditional knowledge from indigenous communities, mainly by the pharmaceutical industry to develop new products (non-human genetic resources).

Researchers, specialists and stakeholders from the human and the non-human realm hardly ever have an opportunity to co-operate. This is particularly detrimental to those working in the human areas, which lack the legally binding, international regulations which are already in existence for benefit sharing regarding plants, animals and micro-organism.

### **SPECIFIC PROJECT OBJECTIVES**

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#### **Project objectives**

The project established an interdisciplinary team of ethicists, lawyers, economists, medical doctors, specialists in gender studies, representatives of indigenous communities and policy-advisors from five continents. The team was designed to study four paradigmatic international case studies (from South Africa, India, Iceland and Kenya) to provide a profound state-of-the-art analysis for benefit sharing in the context of human and non-human resources.

Based on this comparative research, the main aim of this project was to **promote policy developments by developing an "ethics health check" for benefit sharing agreements involving vulnerable groups and communities in the area of human genetics.**

The GENBENEFIT project set the following four objectives:

- To advance knowledge and ethical insight into existing benefit sharing frameworks with regard to human genetic resources;
- To explore paradigmatic international case studies to identify ethical concerns and possible solutions;
- To create an international network of experts and stakeholders on benefit sharing from human and non-human areas to explore synergies;
- To promote future policy developments by developing an "ethics health check" prerequisite for benefit sharing agreements involving vulnerable groups and communities in the context of human genetic resources.

#### **SaS/SiS Programme objectives/Activity Lines**

The project intended to promote policy developments in the ethics area which therefore contributed to the second SaS specific objective to "ensure that rapidly advancing progress in science is in harmony with fundamental ethical principles promoting 'responsible science and research' in Europe". More specifically, it contributed to "deepening the understanding of ethical issues" (area line 4.3.2.3). The project also aimed to investigate the relationship between ethics and science through by enhancing dialogue through the creation of a network of researchers.

### **SaS dimensions**

The GENBENEFIT project was relevant for the SaS science and ethics dimension. The project aimed at promoting policy developments by developing an “ethics health check” for benefit sharing agreements involving vulnerable groups and communities in the area of human genetics.

#### **Innovation Union objectives**

Since one of the project objectives was to advance knowledge and ethical insight into existing benefit sharing frameworks with regard to human genetic resources, it aimed at strengthening the knowledge base and reducing fragmentation, being thus consistent with the Innovation Union objectives.

#### **European Research Area (ERA) objectives**

The project objectives were relevant to the ERA deployment as they contributed to “develop[ing] a shared vision of the ethical issues surrounding science and technology”. Indeed, the project aimed at creating an international network of experts and stakeholders in order to share information and explore synergies.

#### **SaS Action Plan**

GENBENEFIT objectives were particularly in line with the SaS Action Plan’s “Dialogue with citizens” and “The ethical dimension in science and the new technologies” since the project aimed at developing an “ethics health check” for benefit sharing agreements involving vulnerable groups and communities. More specifically, the project was consistent with following action lines:

- Action 20: Organise local and regional dialogues on “Science and Society, since the project aimed at creating an international network with experts and stakeholders;
- Action 29: Help set up information and documentation observatory for ethical issues;
- Action 33: Develop international dialogue on ethical issues.

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## **PROJECT RESULTS AND OUTCOMES**

### **Main achievements according to Project objectives**

In line with its objectives, the GENBENEFIT project delivered the following outputs:

- **A series of public events** particularly in the form of conferences to present and discuss results;
- **Studies and analysis** to report and discuss research results
- **Case studies** including lessons learned (“A Summary and cross-comparison of the Case Studies for GenBenefit”).

On the basis of the Project Final Activity Report, it seems that all planned objectives were reached.

### **Main achievements according to Programme objectives**

With its public events presenting and discussing the project results, its analysis and its case studies, the GENBENEFIT project participated in the “Ethics” dimension of the programme objectives. More specifically, it helped improving the dialogue and information exchange between groups concerned with ethical issues (4.3.2.1), raising the awareness of researchers on ethical issues (4.3.2.2) and deepening the understanding of ethical issues (4.3.2.3). More generally, for those reasons, the project provided a contribution to the creation of a deep and informed dialogue on ethical issues leading to responsible research in the ERA.

### **Main achievements according to SaS Dimensions**

By promoting international discussion about ethics in the area of human genetics research, the GENBENEFIT project results were in line with the objectives of the SaS Science and Ethics dimension, focusing on the ethical implications of innovation in technology and promoting a dialogue between the society and the researchers.

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## **DISSEMINATION AND ENGAGEMENT ACTIVITIES AIMED AT TRANSFERRING THE PROJECT RESULTS TO WIDER COMMUNITIES**

The knowledge gained in the course of the GENBENEFIT project was made public in a number of ways:

- **Publication of results in various forms:** Book, Europolitix forum, reports, Eurosource, etc.
- **Drafting of two academic publications;**
- **Organisation of six meetings** in five different countries (India, Kenya, South Africa and Belgium);
- **Commitment to six high-profile forums.**

For the purpose of efficient dissemination, project partners specified that they activated networks for dissemination such as international organisations (including in particular the World Health Organisation and the United Nations), Non-Governmental Organisations (e.g.: *Medecins du Monde*), national specialised committees (e.g.: National Ethics Commission in Mexico and in Lithuania).

According to the Periodic Activity Report of the 2<sup>nd</sup> Year, minor changes were observed with regards to certain deliverables.

First, the final dissemination conference in Brussels was moved to Mexico City. Second, the project aimed at having a symposium published in a British journal (*Res Publica*) and a book published by Springer. However, Cambridge University Press showed interest in the research output from GenBenefit. Given its prestige, the papers original planned for the *Res Publica* symposium were published in the CUP book (two deliverables were indeed combined).

The effort saved by merging the two deliverables was supposed to be used for submitting a policy paper written by the whole group to the *Journal of Medical Ethics* or to the journal *Bioethics*. However this did not constitute an original planned dissemination activity, there is no evidence that it took place.

## PROJECT IMPACTS

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### Potential impact

The GENBENEFIT project was expected to carry out research on benefit sharing related to the ethics area. Benefit sharing is debated at the highest level of international fora. According to project partners, the discussion of the project would have direct relevance to these debates and the suggested main policy outcome of an "ethics health check" for a benefit sharing agreement would have direct policy relevance.

Potential impacts can be further assessed through the following indicators:

- **Betweenness centrality:** One institution out of the six participating in the project was in the top 1% most central institutions in FP6, three were in the top 5% and four in the top 10%;
- **Scientific attractiveness:** One institution out of nine participating was ranked in the Leiden university ranking: the University of the Witwatersrand Johannesburg, which ranked 529th;
- **Business attractiveness:** No participants from GENBENEFIT were ranked amongst the biggest R&D investors having participated in SaS. This can notably be explained by the fact that participants were mainly universities and research institutes.

### Actual impact

Beyond the expectations, the **actual impacts** can be classified as follows:

- **Scientific impact:** The issue of ethical concerns in benefit sharing received little attention despite the central role it might play in providing much needed guidelines. Through GENBENEFIT, the project contributed to redressing the balance by carrying out research on topics that were translated in particular through a series of publications. Indeed, the consortium published two papers: "*Benefits sharing From Biodiversity to human genetics*" which has been quoted two times and "*Fairness and Gender in Benefit Sharing Learning from the Kani, San, Nigerian, Kenyan and Icelandic cases for moving forward*". According to the project coordinator's interview, a part of the GENBENEFIT group reunited again for Horizon 2020 and collaborated under TRUST.
- **Institutional and organisational impact:** the project did not result in the creation of institutions, bodies or networks.
- **Policy impact:** The GENBENEFIT project was in line with the EU Commission's commitment to ensure international dialogue on ethical principles. According to the interview to the project coordinator, the GENBENEFIT project contributed to the policies development.

First, the Indian partner and the South African partners in GenBenefit are now amongst of the main advisors of the Indian and South African government on intellectual property and benefit sharing. For example, several meetings of the GENBENEFIT project saw the participation of two Co-Chairs of the UN Convention on Biological Diversity (CBD) Working Group on Access and Benefit Sharing. This helped them understand the difficulties for indigenous communities in protecting their traditional knowledge. One of them endorsed a UNEP commissioned publication (which is based partly on GenBenefit) and which he recommended to all delegates negotiating the Nagoya Protocol. Furthermore, the San or bushmen of South Africa were assisted in protecting their traditional knowledge through a San Research Contract. In 2016, this has led to a San Global Code of Ethics, which will be launched in 2017.

Second, the project coordinator mentioned that the GENBENEFIT project contributed to the development of FP7 and Horizon 2020 ethics review guidelines.

- **Social media impact:** Between 2008 and 2011, only one post was found referring to the GENBENEFIT project, suggesting no relevant social impact in terms of social media listening buzz results. That can be partially explained by the state of the technology at the time of project implementation.

## BEST PRACTICES

No specific best practice could be identified.

Project partners specified their analysis of the EU added value by outlining that the project focuses on an issue of particular sensitivity that involves developing countries that appeal to a wider audience than the EU. As mentioned by the interviewee, GenBenefit's partners have advised the South African and the Indian governments, as well as the United Nations CBD secretariat in Montreal on access and benefit sharing policies. The FP6 programme fosters implementation of the project at the international level. The project was furthermore designed to add value at the EU level by creating a Europe-lead global partnership in the area of benefit-sharing with repercussions that are expected to go beyond the lifetime of the GENBENEFIT project.

In addition, it can be added that as FP6 fully financed the project, EU provided a significant leverage effect. This was confirmed by the interviewee that also pointed out the good budget distribution across all partners as a benefit of EU funding and as a prerequisite for productive global relationships.

## PARTICIPANTS AND RESEARCH TEAM

### Participants

Number of participants: 6

Number of countries involved: 6

	Type	Country	Role	Previous participations to FP
UNIVERSITY OF CENTRAL LANCASHIRE	HES	GB	Coordinator	9
UNIVERSITY OF THE PHILIPPINES, DILIMAN	HES	PH	Participant	1
ASSISTANCE PUBLIQUE-HOPITAUX DE PARIS - CENTRE D'ETIQUE CLINIQUE COCHIN	OTH	FR	Participant	1
RESEARCH AND INFORMATION SYSTEM FOR DEVELOPING COUNTRIES	REC	IN	Participant	1
VILNIAUS UNIVERSITETAS	HES	LT	Participant	2
UNIVERSITY OF THE WITWATERSRAND	HES	ZA	Participant	5

### Team Composition

Team Size: 8 members\*

GENDER				
Female		Male		Unknown
50%		38%		13%
SENIORITY				
Average		Junior		Senior
38%		0%		63%
PhD				
No			Yes	
0%			100%	
BACKGROUND				
Applied Sciences	Health Sciences	Humanities & Social Sciences	Natural Sciences	Unknown
0%	25%	75%	0%	0%

\*The data are based on the analysis of the provided project's Description of Work.

## DELIVERABLES AND PUBLICATIONS

DELIVERABLE NO.	DELIVERABLE NAME	DUE DATE OF DELIVERY (month)	ACTUAL SUBMISSION DATE: (month)
D1	Website	3	-
D2	Eupolitix presence	3	-
D3	Report on benefit sharing frameworks	6	-
D4	"Lessons learned" on "non-human cases"	12	-
D5	"Lessons learned" on "human cases"	15	-
D6	Special section in Res Publica – Four international case studies	36	-
D7	Proceedings vulnerable populations	18	16
D8	Gender report – benefit sharing	21	-
D9	Project brochure	15	-
D10	Special section in CQ – benefit sharing and vulnerable populations	36	31
D11	Eurosource presence	20	-
D12	Ethics health check – Brussels workshop	30	-
D13	Ethics health check – Springer book	36	-
D14	Six high-profile, global dissemination efforts through existing networks	30	-

## Related publications

PUBLICATION TITLE	Number of citations
Doris Schroeder, Julie Cook Lucas, (2013) <i>Benefits sharing from biodiversity to human genetics</i>	2
Fatima Alvarez Castille, Julie Cook Lucas, (2009), <i>Fairness and Gender in Benefit Sharing Learning from the Kani, San, Nigerian, Kenyan and Icelandic cases for moving forward</i>	0

## MAIN SOURCES

### Main sources of information include:

eCORDA;  
CORDIS database;  
OPENAIRE database,  
GENBENEFIT CONSORTIUM (2006). Description of Work. Annex 1  
GENBENEFIT CONSORTIUM (2010). Publishable Final Activity Report  
Interview

to

Doris

SCHROEDER

### **ETHICAL GOVERNANCE OF BIOLOGICAL AND BIOMEDICAL RESEARCH: CHINESE-EUROPEAN CO-OPERATION - "BIONET"**

**Framework Programme: FP6**

**Action line/Part: Part B: Responsible Research and Application of Science and Technology**

**Activity: 4.3.2 Ethics**

**Area: 4.3.2.1 Dialogue and information exchange between groups concerned with ethical issues**

**Dimension: Science and ethics**

**Tool: Specific support action**

**Project Call For Proposal: FP6-2005-SCIENCE-AND-SOCIETY-14**

**Status: -**

**Total cost: € 739 129.00**

**Total EU funding: € 739 129.00**

**Website: <http://bionet-china.org/>**

**Period: 1 October 2006 – 30 September 2009**

**Subjects: Ethics**

**Project ID and Acronym: 36788 BIONET**

### **BACKGROUND AND CONTEXT OF THE PROJECT AND STRATEGIC NEEDS**

Due to recent advances in the life sciences that were only socio-ethically framed by national efforts to introduce respective legislation and to build up statutory systems of ethical review, a number of ethical dilemmas were raised, and, from an international perspective not solved. Those dilemmas concern for example the status of human embryos in life science research, the acceptability of biotechnical cloning, inter-species embryos and genetic modifications, the use of genetic information including the challenge of how these questions and ethical concerns are addressed by the scientific community and public policy in countries across the world. In fact, sharing of work between different states such as EU member countries and China, that have significantly intensified their collaboration in life the sciences and biomedical research in the past years, had taken place without spending much attention to the question of how ethical governance of science and research can be established. Therefore, a key question for BIONET project was: How can national diversity of legal and ethical governance systems and ethical deliberation practices about life sciences and biomedical research cope with increasingly global collaborations in these areas? The aim of BIONET project was to assist in shaping conditions under which public policy decisions regarding multi-level governance of R&D in the life sciences and biomedicine are more effective and more soundly based on ethical reflection and ethical deliberation.

### **SPECIFIC PROJECT OBJECTIVES**

More specific, the BIONET project aimed (a) to set up a comprehensive network within and between China and the European Union that allows to map the rationales for and practices of ethical governance of advanced life science and biomedical research, (b) to provide a platform for the development of comparative research on ethical governance in these areas in China and the European Union, (c) to advance joint understanding of key bioethical issues, challenges and approaches generated in contemporary biomedical research through dialogue between researchers and medical practitioners in China and the EU, (d) to undertake training of researchers and medical practitioners in key issues, and (e) to inform public policy in ethics of biomedical research in China and the EU with particular relevance for scientific research collaboration. Within the broad range of relevant ethical issues, the focus addressed comprised biomedicine, in particular new reproductive medicine, stem cells, genomic research and pharmacogenomics, and biobanking.

The BIONET project aimed to engage the following **activities**:

- **Conferences:** To disseminate findings by means of a number of large multidisciplinary and two international conferences in China on research ethics in biomedicine and the ethical governance of biomedical research. Each conference was preceded and informed by two workshops.
- **Workshops and capacity building:** To hold research workshops within China to bring together researchers, ethicists, social scientists and policy makers to explore key issues regarding the regulation of contemporary biomedical research and to engage in capacity building. In particular, the capacity building aim is substantial, with the long-term goal of providing a platform and maintaining a network.
- **Expert Group:** To set up a European Chinese Expert Group on Ethical Governance of Research in the Life Sciences and Biomedicine, taking into account the rapid developments in biomedical research in China.
- **Exchanges:** To facilitate exchanges of personnel and research findings between Europe and China
- **Resource bank:** To develop a resource bank to support current and future research and policy development in the life science and biomedical research area
- **Joint research:** To assist the development of joint collaborative research projects.

### **SaS/SIS Programme objectives/Activity Lines**

The BIONET project aimed to address emerging ethical issues in life sciences and biomedical research that are not covered by other parts of the Framework Programme. With regard to the objectives of the **FP6-SaS Work**

**Programme** "4.3.2 Ethics", the BIONET project aimed to contribute by building relations between researchers in China and the European Union so as to help to ensure that the rapidly advancing progress in science and technology is in harmony with the diverse socio-ethical and socio-cultural backgrounds across the continents, as well as with the fundamental ethical principles applied in particular in the European member countries, through a process of dialogue, networking, capacity and awareness building, monitoring and early warning. In particular, it contributes to "4.3.2.2 Raising the awareness of researchers on ethical issues" by conducting research and analysis on ethics in these areas. Furthermore, it planned to contribute to "4.3.2.3 Deepening the understanding of ethical issues" through conducting comparative research, foresight and impact studies on ethical issues in relation to the life sciences and technological developments and their applications especially in the field of biomedicine.

### **SaS Action Plan**

Referring to the **Science and Society Action Plan**, BIONET clearly contributed to the goal to put responsible science and research at the heart of European policy making, by making information more accessible (Action 29), promoting awareness and integrity of researchers (Action 31), facilitating exchange between ethics committees (Action 32), and – in particular – by establishing a dialogue on ethics with other regions of the world through a series of conferences and workshops in order to build up capacities for ethical reflection and review in developing countries (Action 33).

## **PROJECT RESULTS AND OUTCOMES**

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### **Project objectives**

In line with the project objectives outlined in the Description of Work (DoW), BIONET achieved relevant results:

- **Conference, workshops and capacity building:** In the BIONET project a number of workshops and conferences during its three-year project duration were organised. Four workshops and two conferences were organised covering issues of ethical governance in reproductive medicine, regenerative medicine, stem-cell research, clinical trials, biobanking and genomics research. These BIONET events were attended by more than 300 Chinese and European scientists, clinicians, lawyers, social scientists, ethicists, policy makers, and others:
  - 2007, 1<sup>st</sup> Workshop "Informed consent in reproductive genetics, stem cell technology and the role of Ethical Review Boards" with 50 participants in Beijing,
  - 2007, 2<sup>nd</sup> Workshop "Ethical governance of reproductive and stem cell research and stem cell banks" with 60 participants in Shanghai,
  - 2008, 1<sup>st</sup> Conference "Ethical governance of reproductive technologies, therapeutic stem cells and stem cell banks" with 81 participants in Changsha,
  - 2008, 3<sup>rd</sup> Workshop "Clinical Research and Clinical Research Organisations in EU-CN research – ethics and governance issues" with 60 participants in Xi'an,
  - 2009, 4<sup>th</sup> Workshop "Biobanking & Personal Genomics: Challenges and Futures for EU-China Collaborations" with more than 60 participants in Shenzhen,
  - 2009, 2<sup>nd</sup> Conference "Biomedical research in China and Europe – the future of research collaborations" with 97 participants in London.
- **Expert Group:** BIONET established a European Chinese Expert Group on ethical Governance of contemporary biomedical research in April 2007. The Group included experts from the fields of medicine, ethics, law, political and social science and worked towards the development of guidelines for best practices in ethical governance of collaborative research between China and Europe. The Expert Group facilitated exchange of personnel and research results among Europe and China and assisted in the development of joint collaborative research projects.
- **Exchanges:** BIONET organised a student exchange during the course of the project, with 11 postgraduate students over the course of three years. Thereby, BIONET exceeded its target of 9 researchers trained by the end of the project. The student exchange programme has been one of the most successful deliverables of the project.
- **Resource bank:** BIONET developed a resource bank to support current and future research and public policy development in this area and to assist the development of joint collaborative research projects.
- **Joint research:** As outcome of three years of dialogue and research between researchers from Europe, China and other regions of the world about ethics governance of life sciences and biomedical research in China-Europe science and research collaborations, a textbook entitled "Life Sciences in Translation – a Sino-European Dialogue on Ethical Governance of the Life Sciences" was published in 2009. The textbook provides insights into multifaceted and fruitful discussions on this subject's matter. In addition, a guidebook to best practices was developed by the BIONET Expert Group. This guidebook provides 30 concrete recommendations concerning both regulatory and institutional measures that enable collaborative biomedical research to be organised ethically.



### **Main achievements according to Programme objectives**

One of the central aims of the FP6-SaS Programme was to develop structural links between the institutions and activities concerned, such as for example responsible research and application of science and technology, and to provide a central focus, through common reference frameworks and the development of appropriate measures and approaches finally guiding activities in this domain. In particular, with the development of a best practice guide on informed consent in European-Asian collaborations, BIONET has developed milestone recommendations on European-Chinese research collaborations. The project's expert group expected that this output will play an important role in future European-Chinese biomedical and biotechnical research collaborations.

### **Main achievements according to SaS Dimensions**

The BIONET project was able to achieve its key objectives to map the state of the art at the time on ethical governance in the life sciences and biomedical research in China and Europe and the project developed a conceptual framework to evaluate public policies for ethical sound governance of biomedical research. In addition, it provided a platform for the development of further relevant thematic issues for research collaboration. Thereby, BIONET was successful in contributing to the "Science and Ethics" discourse beyond the European Research Area.

### **DISSEMINATION AND ENGAGEMENT ACTIVITIES AIMED AT TRANSFERRING THE PROJECT RESULTS TO WIDER COMMUNITIES**

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The dissemination of common understanding and jointly developed policy recommendations can be seen as a significant outcome of the BIONET project. The dissemination methods included the development of a project website and the launch of a web discussion forum, project newsletters and information leaflets, the organization of workshops and conferences including conference reports, the organization of a student exchange programme – and final deliverables (a) Textbook on Ethical Governance of Research in the Life Sciences and Biomedicine – EU-China Collaboration, (b) Best practice guidebook on European-Asian life science and biomedical research collaborations, and (c) final report of BIONET on Ethical Governance of Science and Research in the Life Sciences and Biomedicine – EU-China Collaboration.

### **PROJECT IMPACTS**

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The potential impact in terms of enablers regarding the dissemination of BIONET project results can be assessed as relatively high, taking into account the circumstance that 8 participating organisations are among the top 1%, 3 organisations among the top 5% and 1 organisation among the top 10% of the most central organisations in the overall network of Framework Programme 6 participants. The more central an organisation is the more it does not only participate in several projects in a Framework Programme, but it also participates with other relevant organisations, which is again increasing the occasions for networking and channels of relevant knowledge and information exchange. According to the Leiden University Ranking, 8 of the participating organisations are as universities highly ranked.

The BIONET project impacts can be distinguished into:

- **Scientific impact:** Under BIONET an impressive amount of scientific publications was produced. Reducing the number of 50 to the amount of scientific publications, 5 publications were produced which were cited in other scientific articles about 26 times. This suggests a quite positive effect from the project under a scientific point of view. The number of publications related to the BIONET project is very much above the average publication number in other FP6-SaS projects (0,5 publications per project).
- **Social media impact:** Apart from 5 social media posts, BIONET shows a near zero social media post collection. This can be explained by the state of practice using social media at the time of the project.
- **Public Policy impact:** The BIONET project developed guidelines for best practices in ethics governance in collaborative science and research between China and Europe. Nevertheless, from the BIONET presentations, debates, case studies and discussions, it was made clear that ethical governance is not just about how ethical guidelines and regulations are implemented, rather it concerns a complex deliberation system wherein science and research practices are governed by respect for the rule of constitutional law and human rights, by transparency, by scientific integrity and accountability, and freedom from corporatism and corruption. The BIONET project pointed at the need of further empirical research regarding the many issues of ethical governance in the life sciences and biomedical research.

### **PATH-BREAKING ADVANCEMENTS**

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The BIONET projects central research question was how a national diversity of systems of ethical governance and ethical deliberation about biological and biomedical research can cope with increasingly global life science and biomedical research collaborations. Following from that, the aim of the BIONET project was to assist in shaping conditions under which public policy decisions, in a multi-level governance perspective, concerning research and development in the life sciences and biomedicine are more effective in meeting socio-ethical concerns. Insofar, the BIONET project has contributed to pioneer 'uncharted' territory identifying opportunities and limitations of introducing ethical governance related to a highly controversial R&D area. It provided an overview on life sciences and biomedical



research in Europe and China which should be subject to ethical reflexion. The project mapped modes of governance relevant for international biomedical research cooperation. Modes for ethical reflection and deliberation were identified as relevant for the ethical governance of life science and biomedical research. The BIONET project explored how global life science collaborations must increasingly navigate through a plurality of ethical governance arenas.

According to the final report a path-breaking advancement in the general debate on Science and Ethics had been the Declaration of Helsinki. The declaration, both relevant for Europe and China, states the principle rule that considerations related to the well-being of the individual in society should take precedence over the interests of science and R&D. Since the Helsinki Declaration, a number of international guidelines and conventions related, for example, to biomedical research – in particular human subject related biomedical research – have been adopted. Yet, it also became clear through the BIONET project, that recent ethical guidelines and respective regulations are not sufficient yet for a number of reasons which the BIONET project explored.

In three years with a rather moderate budget of less than 750.000 EUR, the BIONET project was able to produce a considerable outcome (website, workshops and conferences, expert group set up, student exchanges, reports). The project was realized involving a broad range of stakeholder, amongst them representatives of high impact organisations in European countries and in China. Against the background of the controversial debate on ethical governance of science and research, it is the variety of activities, partners (20) and nationalities (10) that brought the BIONET project deliverables to a higher level, including a textbook on Ethical Governance of Research in the Life Sciences and Biomedicine and a best practice guide for European-Asian biomedical research collaborations.

### EU ADDED VALUE OF THE PROJECT

The project consortium involved twenty partner organisations from eight European member states, one associated partner country to the Framework Programme (Switzerland) and from China (two partner organisations). One partner organisation was a transnational industrial organisation with the head quarter in Switzerland (Novartis AG). The project was mapping and comparatively analysing ethical governance issues in life sciences and biomedical research in Europe and China and aimed to build up capacities for ethical governance of scientific collaboration in biomedical research between Europe and China. The BIONET project is an FP international cooperation (INCO) project. It has a high European and "EU beyond" project added value.

### PARTICIPANTS AND RESEARCH TEAM

#### Participants

Number of participants: 20

Number of countries involved: 10

	Type	Country	Role	Previous participations to FP
LONDON SCHOOL OF ECONOMICS AND POLITICAL SCIENCE	HES	GB	Coordinator	38
JOHANNES GUTENBERG UNIVERSITÄT MAINZ	HES	DE	Participant	1
LUDWIG MAXIMILIANS UNIVERSITÄT MÜNCHEN	HES	DE	Participant	1
NOVARTIS VACCINES AND DIAGNOSTICS SRL	OTH	IT	Participant	1
UNIVERSITÄTSKLINIKUM BONN FÜR DEN FACHBEREICH MEDIZIN DER UNIVERSITÄT BONN	HES	DE	Participant	1
ERASMUS UNIVERSITEIT ROTTERDAM	HES	NL	Participant	1
THE CHANCELLOR, MASTERS AND SCHOLARS OF THE UNIVERSITY OF OXFORD	HES	GB	Participant	1
UNIVERSITY OF SUSSEX	HES	GB	Participant	1
BEIJING GENOMICS INSTITUTE - CHINESE ACADEMY OF SCIENCES	REC	CN	Participant	1
INSTITUTE OF PHILOSOPHY, CHINESE ACADEMY OF SOCIAL SCIENCE	REC	CN	Participant	1
PEKING UNION MEDICAL COLLEGE, CHINESE ACADEMY OF MEDICAL SCIENCES	REC	CN	Participant	1
CENTRAL SOUTH UNIVERSITY	HES	CN	Participant	1

Stock-taking and meta-analysis of Science in Society projects throughout FP6 and FP7  
Final Case Studies

	Type	Country	Role	Previous participations to FP
PEKING UNIVERSITY HEALTH SCIENCE CENTRE	HES	CN	Participant	3
INSTITUT ZA KRIMINOLOGIJO PRI PRAVNI FAKULTETI	REC	SI	Participant	1
INSTITUT FUR ASIENKUNDE	REC	DE	Participant	1
KING'S COLLEGE LONDON	HES	GB	Participant	61
UNIwersytet LODZKI	HES	PL	Participant	12
UNIVERISTÄT BASEL	HES	CH	Participant	26
UNIVERSITÄT WIEN	HES	AT	Participant	21
CENTRE NATIONAL DE LA RECHERCHE SCIENTIFIQUE	REC	FR	Participant	540

### Team Composition

Team Size: members\*

GENDER				
Female		Male		Unknown
38%		57%		5%
SENIORITY				
Average		Junior		Senior
5%		0%		95%
PhD				
No		Yes		
0%		100%		
BACKGROUND				
Applied Sciences	Health Sciences	Humanities & Social Sciences	Natural Sciences	Unknown
0%	14%	71%	14%	0%

\*The data are based on the analysis of the provided project's Description of Work.

### DELIVERABLES AND PUBLICATIONS

DELIVERABLE NO.	DELIVERABLE NAME	DUE DATE OF DELIVERY (month)	ACTUAL SUBMISSION DATE (month)
D1	First Steering Committee and Network Meeting	1st month	1st month
D2	Launch of the project website	3rd month	3rd month
D3	Workshop 1 Report on "Informed consent in reproductive genetics, stem cell technology and the role of Ethical Review Boards"	7th month	7th month
D4	Newsletter, 1 <sup>st</sup> edition	7th month	7th month
D5	Second Steering Committee meeting	9th month	9th month
D6	3 postgraduate from China to be trained in European partner institutions	12th month	12th month
D7	First Annual Progress Report	12th month	12th month
D8	Workshop 2 Report on "Ethical governance of reproductive stem cell technologies therapeutic stem cells and stem cell banks"	13th month	13th month
D9	Newsletter, 2nd edition	13th month	13th month
D10	Third Steering Committee meeting	18th month	18th month
D11	Launch of Web Discussion Forum	18th month	18th month
D12	Report on Conference 1 on Ethical governance of reproductive technologies, therapeutic stem cells and stem cell banks	19th month	19th month
D13	Information Leaflet 1 on Ethical governance of reproductive technologies, therapeutic stem cells	19th month	19th month

Stock-taking and meta-analysis of Science in Society projects throughout FP6 and FP7  
Final Case Studies

DELIVERABLE NO.	DELIVERABLE NAME	DUE DATE OF DELIVERY (month)	ACTUAL SUBMISSION DATE (month)
	and stem cell banks		
D14	First Interim Report of Expert Group	19th month	19th month
D15	Newsletter, 3rd edition	19th month	19th month
D16	Workshop 3 Report on Ethical governance of genomic research and benefit sharing	23rd month	23rd month
D17	3 further postgraduates from China to be trained in European partner institutions	24th month	24th month
D18	Second Annual Progress Report	24th month	24th month
D19	Newsletter, 4th edition	25th month	25th month
D20	Fourth Steering Committee Meeting	27th month	27th month
D21	Workshop 4 Report on Governance and benefit sharing of biobanks of genomic materials	29th month	29th month
D22	Newsletter, 5th edition	30th month	30th month
D23	Final Steering Committee and Final Network Meeting	36th month	36th month
D24	Report on Conference 2 on Governance and benefit sharing of biobanks of genomic materials	36th month	36th month
D25	Information Leaflet 2 on Governance and benefit sharing of biobanks of genomic materials	36th month	36th month
D26	Second Interim Report of Expert Group	36th month	36th month
D27	3 further postgraduates from China to be trained in European partner institutions	36th month	36th month
D28	Report on Exchange Visits of Postgraduates from China to European Partner Institutions	36th month	36th month
D29	Textbook on Ethical Governance of Research in the Life Sciences and Biomedicine – EU-China Collaboration	36th month	36th month
D30	Best practice guide by Expert Group on informed consent in European-Asian collaborations	36th month	36th month
D31	Final report of BIONET on Ethical Governance of Research in the Life Sciences and Biomedicine – EU-China Collaboration	36th month	36th month

PUBLICATION NO.	PUBLICATION	LINK (when available)
1	Bauer, S. & Wahlberg, A. (eds.) 2009 <i>Contested Categories: Life Sciences in Society</i> , Aldershot: Ashgate.	<a href="https://www.mpiwg-berlin.mpg.de/de/node/11385">https://www.mpiwg-berlin.mpg.de/de/node/11385</a>
2	Chen, H. 2009 'Stem cell governance in China: from bench to bedside?', <i>New Genetics and Society</i> , 28(3): 267-282.	<a href="http://www.tandfonline.com/toc/cngs20/current">http://www.tandfonline.com/toc/cngs20/current</a>
3	Cong, Y. 2007 'From Chinese Values of Life to Explore the Ethical Aspects of Stem Cell Research in Mainland China', <i>Contemporary Chinese Thought</i> 2(Winter 2007-08): 18-31.	<a href="http://www.tandfonline.com/doi/abs/10.2753/CSP1097-1467390201?journalCode=mcsp20">http://www.tandfonline.com/doi/abs/10.2753/CSP1097-1467390201?journalCode=mcsp20</a>
4	Cong, Y. 2004 'Artificial insemination and happiness' <i>Eubios Journal of Asian and International Bioethics</i> 14: 48-9.	<a href="http://www.eubios.info/EJ142/ej142c.htm">http://www.eubios.info/EJ142/ej142c.htm</a>
5	Döring, O. 2009 'Probing the Trial of Medical Trials: Chinese – European Collaborations; A Conference Report', <i>Journal of International Biotechnology Law</i> 6(1): 41.	<a href="http://www.degruyter.com/view/j/jibl.2009.6.issue-1/jibl.2009.xx/jibl.2009.xx.xml">http://www.degruyter.com/view/j/jibl.2009.6.issue-1/jibl.2009.xx/jibl.2009.xx.xml</a>
6	Döring, O. 2008 'The possible role of religion in secular bioethics. Reflexions on the case of China', Kwan, T-W (ed.) <i>Responsibility and Commitment: Eighteen Essays in Honor of Gerhold K. Becker</i> , Waldkirch: Edition Gorz: 249-264	<a href="http://vg03.met.vgwort.de/na/c538cc49039f441493d502a5c5fcdcdf?l=http://edition-gorz.de/R+C-16-Doering.pdf">http://vg03.met.vgwort.de/na/c538cc49039f441493d502a5c5fcdcdf?l=http://edition-gorz.de/R+C-16-Doering.pdf</a>
7	Döring, O. 2008 'What's in a choice? Ethical, cultural and social dimension of sex selection in China', <i>human ontogenetics</i> 2(1), 2008: 11-24.	<a href="http://onlinelibrary.wiley.com/doi/10.1002/huon.200800002/pdf">http://onlinelibrary.wiley.com/doi/10.1002/huon.200800002/pdf</a>

PUBLICATION NO.	PUBLICATION	LINK (when available)
8	Döring, O. 2007 'Limits of Human Existence According to China's Bioethics', in Düwell, M., Rehmann-Sutter, C., and Mieth, D. (eds.) <a href="#">The Contingent Nature of Life. Bioethics and Limits of Human Existence</a> . Dordrecht: Springer. 2007: 289-303.	<a href="http://www.springer.com/us/book/9781402067624">http://www.springer.com/us/book/9781402067624</a>
9	Döring, O. 2006 'Steering between Humanitarian Medicine and the Commodity Market: China Sets Out to Govern Human Organ Transplants', <a href="#">CHINA aktuell – Journal of Current Chinese Affairs</a> 4: 83-98.	<a href="http://econpapers.repec.org/article/gigchaktu/v_3a35_3ay_3a2006_3ai_3a4_3ap_3a81-98.htm">http://econpapers.repec.org/article/gigchaktu/v_3a35_3ay_3a2006_3ai_3a4_3ap_3a81-98.htm</a>
10	Döring, O. 2006 'Biomedical Research and Ethical Regulations in China: Some Observations about Gene Therapy, Human Research, and Struggles of Interest' in Niewöhner, J. and Tannert, C. (eds.), <a href="#">Gene Therapy: Prospective Technology Assessment in its Societal Context</a> . Amsterdam: Elsevier: 143-58.	<a href="http://www.sciencedirect.com/science/article/pii/B9780444528063500135">http://www.sciencedirect.com/science/article/pii/B9780444528063500135</a>
11	Döring, O. 2003 'China's Struggle for Practical Regulations in Medical Ethics', <a href="#">Nature Reviews Genetics</a> 4: 233-9.	<a href="http://www.ncbi.nlm.nih.gov/pubmed/12610528">http://www.ncbi.nlm.nih.gov/pubmed/12610528</a>
12	Düwell, M., Rehmann-Sutter, C., and Mieth, D. (eds.) 2007 <a href="#">The Contingent Nature of Life. Bioethics and Limits of Human Existence</a> , Dordrecht: Springer.	<a href="http://www.springer.com/us/book/9781402067624">http://www.springer.com/us/book/9781402067624</a>
13	Gottweis, H. 2009 'Biopolitics in Asia', <a href="#">New Genetics and Society</a> , 28(3): 201-4.	<a href="http://www.tandfonline.com/doi/abs/10.1080/14636770903162411">http://www.tandfonline.com/doi/abs/10.1080/14636770903162411</a>
14	Gottweis, H. & Kim, B. 2009 'Bionationalism, stem cells, BSE, and Web 2.0 in South Korea: toward the reconfiguration of biopolitics', <a href="#">New Genetics and Society</a> , 28(3): 223-39.	<a href="http://www.tandfonline.com/doi/abs/10.1080/14636770903162437">http://www.tandfonline.com/doi/abs/10.1080/14636770903162437</a>
15	Gottweis, H., Salter B, and Waldby C., 2009 <a href="#">The Global Politics of Human Stem Cell Science: Regenerative Medicine in Transition</a> , London: Palgrave.	<a href="http://www.palgrave.com/us/book/9780230002630">http://www.palgrave.com/us/book/9780230002630</a>
16	Gottweis, H. and Minger, S. 2008 'iPS cells and the politics of promise' <a href="#">Nature Biotechnology</a> , 26(3): 271-2.	<a href="http://www.nature.com/nbt/journal/v26/n3/full/nbt0308-271.html">http://www.nature.com/nbt/journal/v26/n3/full/nbt0308-271.html</a>
17	Gottweis, H. and Petersen, A. (eds.) 2007 <a href="#">Biobanks: Governance in Comparative Perspective</a> . London: Routledge.	<a href="https://searchworks.stanford.edu/view/7649509">https://searchworks.stanford.edu/view/7649509</a>
18	Gottweis, H. and Zatloukal, K. 2007 'Biobank Governance: Trends and Perspectives', <a href="#">Pathobiology</a> , 74: 206-11.	<a href="http://www.ncbi.nlm.nih.gov/pubmed/17709961">http://www.ncbi.nlm.nih.gov/pubmed/17709961</a>
19	Gottweis, H. and Triendl, R. 2006 'South Korean policy failure and the Hwang debacle' <a href="#">Nature Biotechnology</a> , 24: 141-3.	<a href="http://www.nature.com/nbt/journal/v24/n2/abs/nbt0206-141.html">http://www.nature.com/nbt/journal/v24/n2/abs/nbt0206-141.html</a>
20	Gottweis, H. and Prainsack, P. 2006 'Emotion in political discourse: Contrasting approaches to stem cell governance: the US, UK, Israel, and Germany', <a href="#">Regenerative Medicine</a> , 1(6): 823-9.	<a href="http://www.ncbi.nlm.nih.gov/pubmed/17465763">http://www.ncbi.nlm.nih.gov/pubmed/17465763</a>
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22	Hennig, W. 2009 'Research in China : Experiences from 23 years of molecular genetics research in Shanghai', <a href="#">EMBO reports</a> , 10(6): 545-50.	<a href="http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2711828/">http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2711828/</a>

PUBLICATION NO.	PUBLICATION	LINK (when available)
23	Hennig, W. 2006 ' <u>Bioethics in China: Although national guidelines are in place, their implementation remains difficult</u> ', <u>EMBO reports</u> , 7(9): 850-4.	<a href="http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1559670/">http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1559670/</a>
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25	Qiu, R. 2006 'Cloning Issues in China', in Roetz, H. (ed.) <u>Cross-Cultural Issues in Bioethics: The Example of Human Cloning</u> . Amsterdam, New York: Rodopi.:51-75.	<a href="https://repository.library.georgetown.edu/handle/10822/548063?show=full">https://repository.library.georgetown.edu/handle/10822/548063?show=full</a>
26	Qiu, R. 2001 'Sociocultural dimensions of infertility and assisted reproduction in the Far East' in <u>Current Practices and Controversies in Assisted Reproduction</u> , Report of a meeting on "Medical, Ethical and Social Aspects of Assisted Reproduction" WHO Headquarters, Geneva, Switzerland, 17-21 September 2001	<a href="http://www.ncbi.nlm.nih.gov/nlmcatalog/101285045">http://www.ncbi.nlm.nih.gov/nlmcatalog/101285045</a>
27	Rehmann-Sutter, C., and Müller, H. 2009 <u>Disclosure Dilemmas: Ethics of Genetic Prognosis after the 'Right to Know/Not to Know' Debate</u> , Aldershot: Ashgate.	<a href="http://onlinelibrary.wiley.com/doi/10.1111/j.1753-6405.2010.00606.x/pdf">http://onlinelibrary.wiley.com/doi/10.1111/j.1753-6405.2010.00606.x/pdf</a>
28	Rehmann-Sutter, C., Porz, R. and Leach Scully, J. 2008 'Sourcing human embryonic tissue: the ethical issues', in H. Wiesmann (ed) <u>Fundamentals of Tissue Engineering and Regenerative Medicine</u> , London: Springer.	<a href="http://rd.springer.com/chapter/10.1007%2F978-3-540-77755-7_4#page-1">http://rd.springer.com/chapter/10.1007%2F978-3-540-77755-7_4#page-1</a>
29	Rose, N. 2008 ' <u>The value of life: somatic ethics &amp; the spirit of biocapital</u> ', <u>Daedalus</u> , 137(1): 36-48.	<a href="http://www.mitpressjournals.org/doi/abs/10.1162/daed.2008.137.1.36?journalCode=daed">http://www.mitpressjournals.org/doi/abs/10.1162/daed.2008.137.1.36?journalCode=daed</a>
30	Rose, N. 2007 'Beyond medicalisation', <u>The Lancet</u> , 369: 700-1.	<a href="http://www.ncbi.nlm.nih.gov/pubmed/17321317">http://www.ncbi.nlm.nih.gov/pubmed/17321317</a>
31	Rose, N. 2007 ' <u>Molecular Biopolitics, Somatic Ethics and the Spirit of Biocapital</u> ', <u>Social Theory and Health</u> , 5(1): 3-29.	<a href="http://www.ingentaconnect.com/content/pal/sth/2007/0000005/0000001/art00002?crawler=true">http://www.ingentaconnect.com/content/pal/sth/2007/0000005/0000001/art00002?crawler=true</a>
32	Rose, N. and Rabinow, P. 2006 ' <u>Biopower today</u> ', <u>BioSocieties</u> , 1, 2, 195-218.	n/a
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34	Singh, I. & Rose, N. 2009 ' <u>Biomarkers in psychiatry: Promises and perils in the real world</u> ', <u>Nature</u> , 460(7252): 202-7.	<a href="http://www.nature.com/nature/journal/v460/n7252/full/460202a.html">http://www.nature.com/nature/journal/v460/n7252/full/460202a.html</a>
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36	Sleeboom-Faulkner, M. (ed.) 2009 <u>Human Genetic Biobanks in Asia: Politics of Trust and Scientific Advancement</u> , London: Routledge.	<a href="https://www.routledge.com/Human-Genetic-Biobanks-in-Asia-Politics-of-trust-and-scientific-advancement/Sleeboom-Faulkner/p/book/9780710313416">https://www.routledge.com/Human-Genetic-Biobanks-in-Asia-Politics-of-trust-and-scientific-advancement/Sleeboom-Faulkner/p/book/9780710313416</a>
37	Sleeboom-Faulkner, M. 2008 'The Changing Nature of Ideology in the Life Sciences in Mainland China: Case-studies of Human Cloning and Human Embryonic Stem Cell Research (hESR) in Medical Textbooks (1996-2005)', <u>BioSocieties</u> 3(1): 21-36.	<a href="http://sro.sussex.ac.uk/10517/">http://sro.sussex.ac.uk/10517/</a>
38	Sleeboom-Faulkner, M. 2007 ' <u>Social-science</u>	<a href="http://sro.sussex.ac.uk/10326/">http://sro.sussex.ac.uk/10326/</a>



PUBLICATION NO.	PUBLICATION	LINK (when available)
	<a href="#"><u>perspectives on bioethics: Predictive Genetic Testing (PGT) in Asia</u></a> , <a href="#"><u>Journal of Bioethical Inquiry</u></a> , 4(3): 197-206.	
39	Sleeboom-Faulkner, M. 2007 ' <a href="#"><u>Predictive Genetic Testing in Asia: Social Science Perspectives on the Bioethics of Choice</u></a> ', <a href="#"><u>Journal of Bioethical Inquiry</u></a> , 4(3): 193-5.	<a href="http://sro.sussex.ac.uk/57354/">http://sro.sussex.ac.uk/57354/</a>
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41	Sleeboom-Faulkner, M. 2006 ' <a href="#"><u>How to define a population: Cultural politics of genetic sampling in the People's Republic of China and the Republic of China</u></a> ', <a href="#"><u>BioSocieties</u></a> , 1(4): 399-419.	<a href="http://journals.cambridge.org/action/displayAbstract?fromPage=online&amp;aid=570552">http://journals.cambridge.org/action/displayAbstract?fromPage=online&amp;aid=570552</a>
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44	Wahlberg, A. 2008 ' <a href="#"><u>Reproductive medicine and the concept of 'quality'</u></a> ', <a href="#"><u>Clinical Ethics</u></a> , 3(4): 189-93.	<a href="http://cet.sagepub.com/content/3/4/189.abstract">http://cet.sagepub.com/content/3/4/189.abstract</a>
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46	Wahlberg, A. 2008 ' <a href="#"><u>Pathways to Plausibility: When Herbs Become Pills</u></a> ', <a href="#"><u>BioSocieties</u></a> , 3(1): 37-56	<a href="http://rd.springer.com/article/10.1017%2FS1745855208005942">http://rd.springer.com/article/10.1017%2FS1745855208005942</a>
47	Wahlberg, A. 2007 ' <a href="#"><u>Measuring progress – calculating the life of nations</u></a> ', <a href="#"><u>Distinktion – Scandinavian Journal of Social Theory</u></a> , 14, 65-82.	<a href="http://www.tandfonline.com/doi/abs/10.1080/1600910X.2007.9672939">http://www.tandfonline.com/doi/abs/10.1080/1600910X.2007.9672939</a>
48	Wahlberg, A. and McGoey, L. 2007, ' <a href="#"><u>An elusive evidence base – the construction and governance of randomised controlled trials</u></a> ', <a href="#"><u>BioSocieties</u></a> , <a href="#"><u>Special issue 'The Construction and Governance of Randomised Controlled Trials'</u></a> , 2(1): 1-10.	<a href="http://journals.cambridge.org/action/displayAbstract?fromPage=online&amp;aid=1002656&amp;fileId=S1745855207005017">http://journals.cambridge.org/action/displayAbstract?fromPage=online&amp;aid=1002656&amp;fileId=S1745855207005017</a>
49	Wahlberg, A. & Streitfellner, T. 2009 'Tourisme de cellules souches, désespoir et pouvoir des nouvelles thérapies [Stem cell tourism, desperation and the governing of new therapies]' in Leibing, A. & Tournay, V. (eds.) <a href="#"><u>Technologies de l'espoir. Les débats publics autour de l'innovation médicale – un objet anthropologique à définir</u></a> , Québec : Presses Universitaires de Laval, collection Société, cultures et santé.	<a href="http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3325467/">http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3325467/</a>
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**MAIN SOURCES**

DoW

36788\_\_26\_D31 - BIONET Final Report FINAL

36788\_\_7\_D7\_BIONET 1st Periodic Activity Report - Oct06-Sep07-final

36788\_\_18\_BIONET 2nd Periodic Activity Report - Oct07-Sep08-Final

36788\_\_27\_D31bis\_BIONET 3rd Periodic Activity Report  
36788\_\_24\_D29 - BIONET Textbook FINAL  
36788\_\_25\_D30 - BIONET Expert Group - Final Report  
36788\_\_23\_D28 - BIONET Exchange Student Report

## **EIROFORUM EUROPEAN SCIENCE TEACHER INITIATIVES - "ESTI"**

**Framework Programme: FP6**

**Action line/Part: PART C: STEPPING UP THE SCIENCE/SOCIETY DIALOGUE AND WOMEN IN SCIENCE**

**Activity: 4.3.4 Scientific and technological culture, young people, science education and careers**

**Area: 4.3.4.3 Promoting young people's interest in science, enhancing science education and monitoring scientific careers**

**Dimension: SCIENCE AND ETHICS**

**Tool: Specific Support Actions**

**Project Call For Proposal: FP6-2003-SCIENCE-AND-SOCIETY-5**

**Status: Closed**

**Total cost: € 3 833 526.00**

**Total EU funding: € 2 417 490.00**

**Website: [www.scienceonstage.net](http://www.scienceonstage.net) / [www.scienceinschool.org](http://www.scienceinschool.org) / [www.eurovolvox.org](http://www.eurovolvox.org) / [www.xplora.org](http://www.xplora.org)**

**Subjects: Women in science**

**Project ID and Acronym: 511180 - ESTI**

### **BACKGROUND AND CONTEXT OF THE PROJECT AND STRATEGIC NEEDS**

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Whilst supporting cutting-edge research is crucial to advancing science and creating the basis of an innovation economy, equally important is ensuring a high level of basic science education for students across Europe. This ensures that the foundations are in place for the scientists of tomorrow and that there is an adequate level of scientific culture and literacy amongst the general public. Providing students with the methodological foundations to turn curiosity into knowledge empowers them and encourages innovation and problem-solving whether this is in the sciences or elsewhere.

### **SPECIFIC PROJECT OBJECTIVES**

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#### **Project objectives**

Recognising the importance of ensuring a solid scientific basis for secondary students, the EIROforum European Science Teachers Initiative (ESTI) was set up as an integrated programme of major events, training and support with the objective **of improving science teaching in schools across the EU**, establishing new links between research and schools, creating new and innovative educational resources, and making science more attractive to students. This wide-reaching initiative was part of an intensive collaboration launched by seven European intergovernmental research organisations (which together form EIROforum) in support of the European Research Area. It built on a history of highly-successful EIROforum projects that were supported by the European Commission and directly benefited thousands of teachers and students, engaging researchers, teacher networks, and science centres.

The ESTI project included three complementary initiatives: i) the Science on Stage festivals; ii) the Science in School education journal; and iii) the Volvox project.

The Science on Stage festivals and Science in School journal had three shared objectives:

- To increase teacher engagement in science through major, high-profile festivals, new opportunities for training, new mechanisms to exchange the best teaching practices across national and disciplinary boundaries and the provision of new teaching resources based on cutting-edge science;
- To create new opportunities for European scientists to participate in education-related events and to acquire didactic skills;
- To identify and monitor trends related to the current decline in the choice of scientific careers and in the interest in scientific literacy observed in Europe.

The Volvox project aimed to enliven school biology teaching in order to encourage more young Europeans to continue to study biological science, follow scientific careers and help to shape Europe's scientific culture and economy. In this context, Volvox aimed to:

- Implement mechanisms to help teachers, scientists and others develop, exchange, translate and adapt resources for biology teaching;
- Identify barriers that prevent the exchange of new and innovative ideas among those with a professional interest in bioscience education;
- Investigate practical means of enhancing the uptake of new and innovative ideas by European biology teachers;
- Investigate the ways in which such innovation networks can be expanded to create a 'critical mass' and thus become sustainable.



The first two initiatives were carried out by the EIROforum consortium, whilst the Volvox project was implemented by the University of Reading together with nine other project partners<sup>69</sup>.

### **SaS/SiS Programme objectives/Activity Lines**

The ESTI project was designed to **raise awareness about science and research among young people** (which corresponds to the first SaS objectives) and more specifically to “promot[e] young people’s interest in science, enhance[e] science education and monitor[e] scientific careers” (Area line 4.3.4.3) through the implementation of a pedagogic programme aiming at improving science teaching in schools across the EU and establishing new links between research and schools. In addition, the project is relevant for the deployment ERA which proposed to in particular “*give the young a taste for careers in science*”. (COM (2000) 6 final).

### **SaS dimensions**

The ESTI project was relevant for the SaS science Literacy dimension. The project was designed around the willingness to foster the links between science and schools. Indeed, as the project aimed at improving science teaching in schools across the EU, establishing new links between research and schools, creating new and innovative educational resources, and making science more attractive to students it was consistent with the science-society theme of this dimension.

### **Innovation Union objectives**

Since the ESTI project aimed at improving science teaching in schools across the EU, it was directly linked to the Innovation Union objective of strengthening the knowledge base and reducing fragmentation among Europe. Indeed, the project was focusing on promoting excellence in education and skills development, which is also one of the Innovation Union goals.

### **European Research Area (ERA) objectives:**

ESTI objectives were in line with the ERA priorities since the ambition of improving science teaching was directly linked to the ERA ambition to build a more effective research system.

### **SaS Action Plan**

The ESTI project objectives were in line with the SaS Action plan, which notably consisted in “Promoting scientific education and culture in Europe”. More specifically, they were consistent with the following actions:

- Action 7 : Network scientific events throughout Europe, e.g. Science Weeks and other events, as the project aimed at organising events like the Science on stage festivals;
- Action 5: Help create multimedia products (TV programmes and publications) for broad dissemination, as one of the project objectives was to create the Science in School education journal;
- Action 11: Strengthen links between working life, research and society, as the project was willing to encourage young people to follow scientific careers; Action 16: Promote more attractive methods for science education in schools, since the project aimed at encouraging the exchange of best teaching practices between teachers.

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## **PROJECT RESULTS AND OUTCOMES**

### **Main achievements according to Project objectives**

The ESTI project was considered to have achieved its initial objectives, most notably having directly involved over 4,000 teachers per year as participants in ESTI initiatives (i.e. Sciences on Stage, Science in Schools and Volvox).

With regard to **Science on Stage**, two series of national and international events for science teachers took place. The first international festival took place in November 2005 at CERN in Geneva, Switzerland and the second in April 2007 in Grenoble, France. The participants were selected through national competitions and events in 29 European countries. Each festival brought together over 500 people (approximately 450 science teachers and education professionals and 50 scientists and staff members from EIROforum organisations). The activities were coordinated by the ESTI consortium, but largely driven by National Steering Committees bringing together members of the national science education systems.

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<sup>69</sup> Association of Danish biologists, the max-planck-gymnasium, University of tartu, coinor, University of Naples, University of Padova, the European school, Science festival school, international institute of molecular and cell biology, Ciência viva, National agency for scientific and technological culture, and the Göteborg University.

The **Science in Schools** project succeeded in establishing a high quality and popular journal, which addressed science teaching both across Europe and across disciplines and highlighted good practices in teaching and cutting-edge research. It covered not only biology, physics and chemistry but also earth sciences, engineering and medicine, focusing on interdisciplinary work. The official launch of the Science in School journal took place at the European Molecular Biology Laboratory in Heidelberg, Germany, on 28 March 2006. The contents of the journal included **teaching materials, cutting-edge science, important science topics, projects in science education, interviews with inspiring scientists and teachers, reviews of books and other resources, information on European events for teachers and schools**, and many other useful resources for science teachers.

The **Volvox project** suffered a delayed start due to administrative and contractual issues but was officially launched at the European Commission in Luxembourg in October 2006. The project developed **guidelines and tools** to help teachers and other stakeholders to develop, exchange, translate and adapt resources for biology teaching. Eight local websites were created and maintained in order to provide resources to participating countries. Throughout the project, Volvox consortium members also worked closely with other projects in the Nucleus cluster in order to exchange resources and ensure effective integration of projects in the cluster and identify and implement appropriate strategies for marketing.

As confirmed in the ESTI Final Activity Report, it can be stated that the intentions of the project were met or exceeded.

However, according to the ESTI and VOLVOX Activity Reports, minor difficulties and corrective changes were observed during the project lifecycle.

In the case of the ESTI project, delays were caused by the difficulty of hiring an editor and the limited resources of two organisations (ESRF and ILL).

In the case of the VOLVOX project, the delayed contract negotiations and the lack of funds until the 9<sup>th</sup> months of the project prevented the completion of a project plan and caused delays all along the project lifecycle. Minor difficulties were also related to the use of a virtual system initially set up to facilitate the exchange of documents. Moreover, the Nuclear cluster turned out to be less effective than expected although project cooperation was deemed successful. Finally, the reporting for the Commission turned out to be especially burdensome.

#### **Main achievements according to Programme objectives**

ESTI results were totally in line with the main objective of the 4.2.4.3 area of the SaS programme, which consisted in “promoting young people’s interest in science, enhancing science education and monitoring scientific careers”. Indeed, with the organisation of Science on Stage and its two series of national and international events for science teachers and the publication of the journal Science in Schools, the project participated in establishing a pan-European initiative to enhance science teaching in schools.

#### **Main achievements according to SaS Dimensions**

the project aimed to improve the way science is taught at school, by suggesting new methodologies but also by giving an increased importance to informal education. For example, a festival was organised and a high quality and popular journal developed to stimulate the engagement of young people.

#### **DISSEMINATION AND ENGAGEMENT ACTIVITIES AIMED AT TRANSFERRING THE PROJECT RESULTS TO WIDER COMMUNITIES**

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The ultimate impact of the ESTI was largely dependent on the effective dissemination of the knowledge and tools generated by the project. Dissemination activities were a core component of each of the three initiatives of the ESTI project:

- The **Sciences on Stage activities** were coordinated by the ESTI consortium members, but largely driven by National Steering Committees. These committees played a critical role in promoting the Science on Stage project. Following each festival, there were several publications of teaching material, workshop discussions and ideas both in hard copy and in online and video format. The material is now archived on the Science on Stage website. Finally, several National Steering Committees held follow-up events in order to allow participating teachers to share what they had learned with other teachers who did not attend the festival.
- The **Science in School journal** was published quarterly and was made available for free online. In addition, free print copies in English were distributed across Europe and many articles were translated by volunteers and made available on the project website. These archived journals remain freely available to the public on the project website and the journal continued to be published in 2015 (issue no. 34 was published in the winter 2015).
- To support **Volvox**, workshops were organised for biology teachers across the EU and consortium members worked closely with other projects in the Nucleus Cluster to develop marketing activities. Following the completion of the project, Volvox resources continue to be made available via eight individual websites maintained by Volvox partners.

On the basis of the collected documentation, it is not possible to detect any unachieved dissemination activity.

## PROJECT IMPACTS

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### Potential impact

The ESTI project was expected **to improve the teaching materials and methods across the EU** through the organisation of festivals (Science on stage), the development of resources to be accessible via the portal (Volvox) and the drafting of the Science in School education journal. Accordingly the project is supposed to stimulate innovation, discussion and comparison between national systems with respect to teaching contents and methods. In addition, the ESTI project was designed to place a heavy emphasis on creating new teaching materials made accessible via the European Science Education Portal (ESEP). The resources will include all types of media such as Facebook and Twitter.

Potential impacts can be further assessed through the following indicators:

- **Betweenness centrality:** Only 3 institutions out of the six participating in the project were in the top 5% most central institutions in FP6, and none were in the top 1%;
- **Scientific attractiveness:** None of the 6 institutions participating in the project were ranked in the Leiden university ranking. This can notably be explained by the fact that most of them were not universities;
- **Business attractiveness:** No participants from ESTI were ranked amongst the biggest R&D investors having participated in SaS. This can notably be explained by the fact that participants were mainly research institutes.

### Actual impact

Beyond expectations, the project's actual impacts can be clustered into the following categories:

- **Scientific impacts** resulting from the ESTI project can be reported as follows:
  - Scientific impact: The independent evaluation<sup>70</sup> of the **Science on Stage** activities concluded that the events were perceived by participants as extremely valuable and rewarding, with participants interviewed indicating that they integrated the resources and ideas collected at the event in their own teaching. Likewise, participants indicated that the initiative provided them with an impetus to teach science more creatively and consider the importance of engaging students through their teaching.
  - According to external evaluators<sup>71</sup>, the **Science in School journal** has become well established amongst the science teaching community. This can be attested to by the steadily rising number of subscriptions and distribution partners: bulk distribution of each issue supported by the project varied between 16,000 and 22,000 copies distributed in up to 38 countries and the website received at the time of the evaluation an average of 50,000 page views per month. The evaluation showed that readers of the journal considered the publication 'motivating' and 'relevant' and that teachers have used the journal contents in their teaching. As outlined above, the Science in School website remains active today with the 34<sup>th</sup> issue of the journal published in the winter of 2015.
- Based on the initial proposal, the **Volvox** project was expected to improve the quality and novelty of teaching and address barriers that prevent the exchange of new and innovative ideas. The project generated useful knowledge on the practical means to enhance the uptake of new and innovative ideas by European biology teachers and suggested ways to widen the scope of the networks using such innovations.
- **Social media impact:** 67 posts on blogs, 34 publications on Facebook and BlogSpot, as well as 11 tweets on Twitter referring to the project could be found, suggesting a relatively significant coverage of the project in social media.
- **Institutional and organisational impact:** several participating countries maintained the momentum of the initiative beyond the ESTI project and leveraged the success of the initiative to attract funding to organise other national and/or international Science on Stage events.
- **Policy impact:** through the drafted recommendations to widen the scope of teachers' networks with innovative ideas produced by the Volvox project, ESTI results could be used by policy-makers in order to build the bridge between science and schools. However, no specific mention to the project in following policies could be identified.

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<sup>70</sup> Independent External Evaluation of the European Science Teachers Initiative carried out by EdComs

<sup>71</sup> Ibid.

## PATH-BREAKING ADVANCEMENTS

The project can be considered having path-breaking advancements due to its stakeholder engagement and scientific impact. By involving over 4,000 teachers per year as participants in ESTI initiatives, the project was considered as particularly impacting stakeholder engagement. Moreover, the scientific impact of the project is apparent since participants at the events organised by the project integrated the resources and ideas collected at the event in their own teaching. The participants also indicated that the events provided them with the impetus to teach science more creatively. The project also had an impact on the number of subscriptions of the Science in school journal, thereby also demonstrating the scientific impact of the project.

## BEST PRACTICES

The initiatives relating to stakeholder engagement can be considered to be as a best practice since by including scientific teachers in initiatives, the project had a direct impact both on stakeholder engagement but also on the potential for the uptake of science in schools.

## EU ADDED VALUE OF THE PROJECT

Project partners did not specify in the deliverables their analysis of the EU added value in the ESTI project however they specified in the "Description of work" that "only an activity carried out on a European scale can achieve these results at a level that will have a meaningful impact on European science education". The FP6 programme fosters the implementation of project at the European scale: ESTI was implemented by six participants from three countries and they implemented events across the EU. Second, the financing plan of the project suggests the leverage effect of the EU funds: 63% of ESTI is financed by FP6.

## PARTICIPANTS AND RESEARCH TEAM

### Science on Stage / Science in School

Number of participants: 6

Number of countries involved: 3

### Volvox (sub-contracted)

Number of participants: 10

Number of countries involved: 9

	Type	Country	Role	Previous participations to FP
<i>Science on Stage / Science in School</i>				
EUROPEAN SPACE AGENCY	REC	FR	Coordinator	8
INSTITUT MAX VON LAUE - PAUL LANGEVIN	REC	FR	Participant	4
EUROPEAN ORGANIZATION FOR NUCLEAR RESEARCH	REC	CH	Participant	34
EUROPEAN MOLECULAR BIOLOGY LABORATORY	REC	DE	Participant	103
EUROPEAN SOUTHERN OBSERVATORY	REC	DE	Participant	9
INSTALLATION EUROPÉENNE DE RAYONNEMENT SYNCHROTRON	REC	FR	Participant	12
<i>Volvox</i>				
THE NATIONAL CENTRE FOR BIOTECHNOLOGY EDUCATION, UNIVERSITY OF READING	HES	UK	Coordinator	-
ASSOCIATION OF DANISH BIOLOGISTS	OTH	DK	Participant	-
THE MAX-PLANCK-GYMNASIUM	REC	DE	Participant	-

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	Type	Country	Role	Previous participations to FP
UNIVERSITY OF TARTU	HES	EE	Participant	-
COINOR, UNIVERSITY OF NAPLES	HES	IT	Participant	-
UNIVERSITY OF PADOVA		IT	Participant	-
THE EUROPEAN SCHOOL	HES	LU	Participant	-
SCIENCE FESTIVAL SCHOOL, INTERNATIONAL INSTITUTE OF MOLECULAR AND CELL BIOLOGY	REC	PL	Participant	-
CIÊNCIA VIVA, NATIONAL AGENCY FOR SCIENTIFIC AND TECHNOLOGICAL CULTURE	REC	PT	Participant	-
GÖTEBORG UNIVERSITY	HES	SE	Participant	-

**Team Composition**

Team Size: 7 members\*

GENDER				
Female		Male		Unknown
14%		86%		0%
SENIORITY				
Average		Junior		Senior
-		-		-
PhD				
No			Yes	
29%			71%	
BACKGROUND				
Applied Sciences	Health Sciences	Humanities & Social Sciences	Natural Sciences	Unknown
14,29%	0%	43%	43%	0%

\*The data are based on the analysis of the provided project's Description of Work.

**DELIVERABLES AND PUBLICATIONS**

DELIVERABLE NO.	DELIVERABLE NAME	DUE DATE OF DELIVERY (month)	ACTUAL SUBMISSION DATE: (month)
D1	Presentation of the ESEP as the main internet-based communication tool for NUCLEUS	4	Not delivered
D2	Development of a common NUCLEUS communication programme	4	Not delivered
D3	Press Releases/Press meetings	1, 12, 14, 18, 31	16, 29
D4	Promotional material for science on stage	2, 19	16
D5	Information webpages, also hosting on-line editions of the Journal	4	77
D6	Input to ESEP	16, 33	Not delivered
D7	Regular impact evaluation reports	12, 24, 36, 38	77
D8	Regular financial reports	12, 24, 36, 38	-
D9	Project Presentation required by the EC	6	77
D10	Final plan for using and disseminating knowledge	6	77
D11	Report on raising public participation and awareness	6	77
D12	SOS1 Guidelines for national steering committees	2	19

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Final Case Studies

DELIVERABLE NO.	DELIVERABLE NAME	DUE DATE OF DELIVERY (month)	ACTUAL SUBMISSION DATE: (month)
D13	National activity plans, budgets and websites for Science on stage 1	2	16
D14	SOS1 national activity reports and financial reports from each participating country	16	29
D15	Multiple national activities and events for Science on stage 1	6	19
D16	Publication of international festival programme for SOS1	13	16
D17	Science on stage 1 festival	15	29
D18	European science teaching awards at SOS1	15	29
D19	SOS2 guidelines for national steering committees	19	29
D20	National activity plans, budgets and websites for science on stage 2	19	29
D21	SOS2 national activity reports and final reports from each participating country	33	77
D22	Multiple national activities and events for science on stage 2	23	29
D23	Publication of international festival programme for SOS2	30	77
D24	Science on stage 2 festival	32	77
D25	European science teaching awards at SOS2	32	77
D26	Journal website	12	29
D27	Journal publicity	12	29
D28	Schedule and guidelines for journal	8	29
D29	Periodic editions of the journal	15, 18, 21, etc. (monthly to 48)	29
D30	Regularly updated webpage and electronic version of journal	15, 18, 21, etc. (monthly to 48)	77

Publications no.	PUBLICATION	LINK (when available)
	<i>Irish science takes centre stage</i>	0
2.	<i>Claus Madsen, Science on stage – Towards a rejuvenated science teaching in Europe</i>	2

## MAIN SOURCES

### main sources of information include::

eCorda;  
 CORDIS database;  
 ESTI CONSORTIUM (2004). Description of Work. Annex 1;  
 ESTI CONSORTIUM progress reports;  
 ESTI CONSORTIUM (2010).final activity report;  
 Independent External Evaluation of the European Science Teachers Initiative;  
 Project websites;  
 Communication from the Commission to the Council, the European Parliament, the Economic and Social Committee and the Committee of the Regions of 18 January 2000: Towards a European research area (COM(2000) 6 final).

## **NETWORKING FOR ETHICS ON BIOMEDICAL RESEARCH IN AFRICA – "NEBRA"**

**Framework Programme: FP6**

**Action line/Part: B. Responsible research and application of science and technology**

**Activity: 4.3.2 Ethics**

**Area: 4.3.2.1 Dialogue and information exchange between groups concerned with ethical issues**

**Dimension: SCIENCE AND ETHICS**

**Tool: Specific Support Actions**

**Project Call For Proposal: FP6-2002-SCIENCE-AND-SOCIETY-1**

**Status: Closed**

**Total cost: € 380 000.00**

**Total EU funding: € 380 000.00**

**Website: -**

**Period: 03/01/2005 - 02/12/2006**

**Subjects: Coordination and Cooperation; Medicine and Health; Policies; Scientific Research**

**Project ID and Acronym: 513341 - NEBRA**

### **BACKGROUND AND CONTEXT OF THE PROJECT AND STRATEGIC NEEDS**

Biomedical research in human beings, including large scale and multicentre clinical trials, was a major tool for the success of a patient-oriented strategy for health improvement within FP6. The European and Developing Countries Clinical Trials Partnership (EDCTP), for example, was funded with the goal of strengthening the development of interventions into clinical trials tailored to the needs of African countries. The experience of projects like EDCTP illustrated that the necessary capacity for ethics review was essential for ensuring the feasibility of the initiatives.

However, the ethics review capacity remains critically underdeveloped in many parts of the world, meaning that effective collaboration between the EU and these countries requires significant capacity building. Few studies have been undertaken to identify these needs, particularly in Western and Central Africa. While African networks fostering ethics in biomedical research such as AMANET (African Malaria Network Trust), PABIN (Pan African Bioethics Initiative) and SARETI (South African Research Ethics Training Initiative) have been particularly involved in Eastern and Southern Africa, this is not the case in Western and Central Africa.

For this reason, stakeholders identified a pressing need to survey existing capacity and to clarify needs in order to propose relevant training programmes for African biomedical researchers/ethics committee members. In addition, it was felt that a North-South and South-South network of ethics committees reviewing trials would contribute to strengthening and promoting the creation and the working of these structures in host countries.

### **SPECIFIC PROJECT OBJECTIVES**

#### **Project objectives**

Four African research and medical institutions together with two European counterparts and the World Health Organisation decided to launch the Networking for Ethics on Biomedical Research in Africa (NEBRA) project aiming at **fostering networking of medical research ethics committees in Africa**. The project covered fifteen African countries from Western and Central Africa.<sup>72</sup>

The overall objective of the project was to foster ethics structures involved in biomedical research in Western and Central Africa and to promote their integration in the international debate in ethics in order to allow them to participate in international biomedical research as equal partners. Furthermore, the project sought to foster networking amongst the different African and European countries involved in the project and to open the platform created, through dissemination activities, to other countries in coordination with other initiatives.

Two operational objectives were identified, each associated with a project component:

- To **conduct an inventory of resources and specify the needs of the existing structures** dedicated to ethics in biomedical research in the region covered by the project; and
- To **design a strategy to foster the African ethics structures** and their integration in the international debate on ethics in biomedical research, build a sustainability plan for implementing this strategy and disseminate the work achieved by NEBRA through the network.

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<sup>72</sup> Three coordinating countries and seven participating countries from the Economic Community of West African States and One coordinating country and three participating countries from the Economic Community of Central African States.

The proposed project approach began with the gathering of in-depth information on the ethics capacity in Africa and from the understanding of people needs in this field to design and disseminate a bottom-up capacity building strategy.

#### **SaS/SiS Programme objectives/Activity Lines**

The NEBRA project was implemented under the project call for proposals FP6-2002-SCIENCE-AND-SOCIETY-1 and more specifically took part at the Activity line 4.3.2 . With its ambition to foster networking between ethics structures involved in biomedical research in Africa, the project was consistent with the Activity Lines objectives as it contributed to investigating the relation between ethics and science and to ensure a harmonious relationship between ethics and science.

#### **SaS dimension objectives**

The NEBRA project aimed at fostering ethics matters in the biomedical research area. In that respect, the project's objective was consistent with the purpose of the Science and Ethics dimension that consisted in promoting the ethics question in the research activities.

#### **Innovation Union objectives**

The NEBRA project was divided in two parts: gathering of in-depth information of the ethics structure in Africa and from the understanding of people needs, design and dissemination of a bottom-up building strategy. The project was therefore in line with the first intermediate objective of the Innovation Union namely "*strengthening the knowledge base and reducing fragmentation*".

#### **European Research Area (ERA) objectives**

The conduct of the NEBRA project was designed for the design of a bottom-up building strategy to foster ethics matter in biomedical research area. The project contributed therefore to an "*optimal circulation, access to and transfer of scientific knowledge including via digital ERA*" (fifth ERA priority).

#### **SaS Action Plan**

The project was consistent with Action 32 (Foster local and national networks of ethical committees) and 33 (Develop international dialogue on ethical issues) of the SaS Action Plan as it aimed at fostering international dialogue on ethical issues through the development of networks of medical research ethics committees in Africa.

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### **PROJECT RESULTS AND OUTCOMES**

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#### **Main achievements according to Project objectives**

Overall, the NEBRA project obtained the results expected as presented in the initial project documents. The project was structured around two work-streams corresponding to the aforementioned operational objectives.

One of the major outputs of the project was the "**Description and analysis of resources and needs in ethics on biomedical research in Western and Central Africa**" report. Information on the existing structures dedicated to ethics in biomedical research were collected through a survey. The survey was conducted by African students who were trained under the guidance of both African and European supervisors on existing ethics review capacities and needs in 15 African countries. NEBRA's Steering Committee was assisted during key steps by the expertise of the Advisory Group established for the project, which included representatives of the existing African Networks.

The final step in the project was to build a sustainable **strategy** for appropriate and tailored **capacity building of the ethics structures** involved in biomedical research. A group of Observers from international public and private institutions interested in ethical aspects of biomedical research in developing countries contributed to the elaboration of this strategy. The outcomes of the NEBRA project were also disseminated amongst stakeholders having some personal and/or professional interest in the issues.

On the basis of the collected documentation, it can be concluded that the two identified objectives were achieved.

#### **Main achievements according to Programme objectives**

By encouraging ethics structures to integrate in the international debate in ethics on international biomedical research, the projects contributed to the programme's expected impact of deepening and informing dialogue on ethical issues. No evidence can be found, however, to indicate that it directly contributed to leading to responsible research in the ERA.

#### **Main achievements according to SaS Dimensions**

The conduct of the NEBRA project led to the development of a strategy for capacity building of the ethics structures involved in biomedical research area. Accordingly, the project was deemed successful in contributing to the objective of the Science and Ethics dimension. The project specifically investigated the resources and needs in ethics on biomedical research in Africa through surveys for students and contributed to developing a strategy for ethics structures. For those reasons, it can be assessed that it contributed somewhat to increasing the focus on the ethical implications of innovation in technology and fostered debates on ethics between civil society and researchers.



## **DISSEMINATION AND ENGAGEMENT ACTIVITIES AIMED AT TRANSFERRING THE PROJECT RESULTS TO WIDER COMMUNITIES**

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Dissemination was a key component of the NEBRA project as it was critical to circulate the results of the survey in order to involve stakeholders in the elaboration of the capacity-building strategy. A preliminary dissemination plan was elaborated and then progressively updated throughout the project. A final plan for post-project dissemination was also elaborated in order to develop the strategy for disseminating knowledge created by NEBRA. The dissemination activities involved:

- **Outreach activities** with local institutions involved in biomedical research in order to acquaint them with the project, its objectives and methods of implementation;
- Creation of a NEBRA project **website**; and
- **Steering Committee and plenary meetings** to present intermediate and final findings to key project stakeholders (during the third plenary meeting, a wide variety of actors from the region and beyond were assembled for the presentation of the final results and the strategy).

In conclusion, unachieved dissemination activities as described in the DoW (WP4 "Dissemination") could not be identified. However, there is no evidence of the Final Visibility and Dissemination Plan, since the corresponding deliverable was not collected.

## **PROJECT IMPACTS**

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### **Potential impacts**

The NEBRA project was expected to **promote ethical issues awareness** through the promotion of ethics structure involved in biomedical research in Western and Central Africa. No ex-post evaluation was conducted for this project, but project documents point to a number of potential impacts for both African countries and European partners as follows:

- **Scientific impact:** The NEBRA project was expected to strengthen ethics review capacity in order to boost Africa's scientific capacity. It was also expected that the capacity-building activities made possible by NEBRA would empower Central and West African countries to become global players in biomedical research and participate in worldwide research. As a result of becoming more active in the international arena, it was expected that the countries may benefit from important medical research which can lead to improved management of public health issues like malaria, AIDS and tuberculosis. Building on the achieved results, NEBRA may be extended to other African nations in the future. The project is structurally designed to be sustained and prolonged in other projects.
- **Policy impact:** As for the European Union and Member States, NEBRA was expected to contribute to one of the objectives of the European Commission as presented by the European Group on Ethics in Science and New Technologies (2003): "build[ing] local ethical Committees in the host countries (...) should be considered as a priority in terms of capacity building". NEBRA was also expected to directly contribute to the implementation of the European & Developing Countries Clinical Trials Partnership (EDCTP) by providing it with an operational platform which could be used during the implementation phase of the partnership. Beyond EDCTP, the North-South / South-South platform built within the framework of the NEBRA project may also be leveraged by other research and/or capacity building collaborations in the future.

The project's potential impact can be further assessed through the following indicators:

- **Betweenness centrality:** One participating organisation of the NEBRA project were amongst the most central FP6 participants.
- **Scientific attractiveness:** None participant was ranked in the Leiden University ranking.
- **Business attractiveness:** The NEBRA project had no participant ranked as one of the biggest R&D investors amongst SaS participants.

### **Actual impacts**

Beyond expectations, the NEBRA project **actual impacts** can be classified into:

- **Scientific impact:** as reported in the final report, the project conducted interviews with health ministers or university representatives from 15 participating African countries in order to identify the existing ethics review capacity and further needs for each individual country. That suggests a positive effect of the project on raising awareness of the ethics issues in the scientific area. However, the scientific impact depends of the strategy designed by the project partners to foster the African ethics structures and how broadly, it is integrated in the international debate on ethics in biomedical research. At the moment of the case study drafting, the final report does not mention any information regarding the actual scientific impact.
- **Institutional and organisational impact:** The NEBRA project aimed at having an impact on the structure of biomedical research by fostering ethics structures. More precisely, the project responds to the need to

identify the existing research capacity ethics in Africa and their needs in order to build a strategy that aims to boost Africa's scientific capacity and make African countries international players in biomedical research. However, no data can be found on the impact of the project on the institutions and organisations.

- **Social impact:** there has been no relevant social impact in terms of social media listening buzz results. That can be partially explained by the state of the technology at the time of project implantation as well as the location of the project (Africa).

## EU ADDED VALUE OF THE PROJECT

Project partners did not specify in the deliverables their analysis of the EU added value in the NEBRA project however it seems to be relevant. First, the FP6 programme fosters the implementation of the project at an international scale: NEBRA was implemented by eight participants from seven countries (whose majority comes from Africa). Second, the project is fully financed by EU funds that suggest that without EU funding, the project partners were unlikely to be able to implement the project.

## PARTICIPANTS AND RESEARCH TEAM

### Participants

Number of participants: 8

Number of countries involved: 7

	Type	Country	Role	Previous participations to FP
INSTITUT NATIONAL DE LA SANTE ET DE LA RECHERCHE MEDICALE	REC	FR	Coordinator	21
UNIVERSITÉ DU MALI	REC	ML	Participant	1
MEDICAL RESEARCH COUNCIL	REC	GM	Participant	1
HÔPITAL ALBERT SCHWEITZER	HES	GA	Participant	1
INSERM-TRANSFERT SA	IND	FR	Participant	-
UNIVERSITÉ D'ABOMEY CALAVI	HES	BJ	Participant	1
WORLD HEALTH ORGANISATION	REC	CH	Participant	9
EBERHARD-KARLS UNIVERSITÄT TÜBINGEN	HES	DE	Participant	13

### Team Composition

Team Size: members\*

GENDER				
Female		Male		Unknown
47%		53%		0%
SENIORITY				
Average		Junior		Senior
13%		20%		67%
PhD				
No			Yes	
53%			47%	
BACKGROUND				
Applied Sciences	Health Sciences	Humanities & Social Sciences	Natural Sciences	Unknown
0	67%	27%	0%	7%

\*The data are based on the analysis of the provided project's Description of Work.

## DELIVERABLES AND PUBLICATIONS

DELIVERABLE NO.	DELIVERABLE NAME	DUE DATE OF DELIVERY (month)	ACTUAL SUBMISSION DATE: (month)
D1	<i>Good and transparent financial management by country and participant to ensure financial accountability</i>	1	-
D2	<i>Survey protocol</i>	3	-
D3	<i>Dissemination and visibility plan</i>	7	-
D4	<i>Intermediary report from M1 to M7 including D2 D3 for the European Commission</i>	8	7
D5	<i>Interim report "Description and analysis of resources and needs in ethics on biomedical research in Western and Central Africa"</i>	9	9
D6	<i>Preliminary "Strategy and sustainability plan"</i>	13	-
D7	<i>Intermediary report from M8 to M13 including D5 D6 for the European Commission</i>	13	13
D8	<i>Final report Description and analysis of resources and needs in ethics on biomedical research in Western and Central Africa"</i>	18	18

No publications are associated with this project.

## MAIN SOURCES

### Main sources of information include:

eCorda;  
 CORDIS database;  
 OPENAIRE database,  
 The project application;  
 Project monitoring reports including:  
 NEBRA Consortium (2004). Description of Work". Annex 1  
 NEBRA Consortium (2005). Good and transparent financial management by country and participant to ensure financial accountability  
 NEBRA Consortium (2005). Dissemination and visibility plan  
 NEBRA Consortium (2005). Intermediary report from M1 to M7 including D2 D3 for the European Commission  
 NEBRA Consortium (2005). Interim report  
 NEBRA Consortium (2006). Intermediary report from M8 to M13 including D5 D6 for the European Commission  
 NEBRA Consortium (2006) Final report

## Science and Ethics: Science in Society

## **SENSITIVE TECHNOLOGIES AND EUROPEAN PUBLIC ETHICS - "STEPE"**

**Framework Programme: FP7**

**Action line/Part: 5.1 A more dynamic governance of the science and society relationship**

**Activity: 5.1.1 Better understanding of the place of science and technology (S & T) in society**

**Area: 5.1.1.2. Research on ethics in science and technology**

**Dimension: SCIENCE AND ETHICS**

**Tool: Collaborative project**

**Project Call For Proposal: FP7-SCIENCE-IN-SOCIETY-2007-1**

**Status: Closed**

**Total cost: € 896 216.00**

**Total EU funding: € 689 054.00**

**Website: Website no longer available**

**Period: 01/05/2008 - 31/12/2011**

**Subjects: Evaluation -Innovation and Technology Transfer - Research ethics**

**Project ID and Acronym: ID: 217815, ACRONYM: STEPE**

### **BACKGROUND AND CONTEXT OF THE PROJECT AND STRATEGIC NEEDS**

Progresses in scientific research, especially in the domain of modern biotechnology, are under the eyes of laypeople. General public has often shown concerns towards these developments, as it was, for example, with the case of GM food in Europe. Taking into account public concerns is crucial for sustainable technology development. These concerns do not ground only on sound science understandings of risks and utilities. They are affected by people sensitivity on ethical issues. Understanding the concerns of lay people and foreseeing them is then necessary to enhance the sustainability of sensitive technology, such as embryonic stem cell research, synthetic biology or chimeras.

### **SPECIFIC PROJECT OBJECTIVES**

The STEPE project aimed at **investigate the realm of public ethics** as far as new technologies and biotechnologies are concerned, by systematically taking into account the point of view of different stakeholders, researchers, industry and citizens of 25 European countries, as well as analysing national and trans-national policies in this field. In particular, the early investigation of new public ethical concerns was to be used to inform and renew the 2008 Eurobarometer Survey on the Life Sciences and Sensitive Technologies. Furthermore, the project wanted to improve the interpretation of these data in making comparative cross-country analysis more effective with multivariate statistical procedures and filtering data in order to enhance the relevance of the survey to the development and analysis of science governance in Europe.

#### **SaS/SiS Programme objectives/Activity Lines**

The analysis envisaged by the project Consortium moved towards a more dynamic governance of the science and society relationship, as the FP7-SiS-2007-1 Call for Proposal explicitly stated in the action line 5.1. The objectives of the project participate in the overarching goal of the Activity line, of expanding at European level the knowledge in the history, sociology, and philosophy of sciences in order to inform sound policies which address the relationship between science and society. The Consortium saw the need of putting society into science as a key feature of European democracy and therefore it addressed public ethics both from the point of view of governance, professional stakeholders and laypeople. In fact, the related action line stated that, in the overall context of ethical issues in Europe and internationally, there is a continuing need to consider ethics in the fields of research, new technologies, science and academia, taking full account of the opinions and concerns of European citizens. At the same time, in aiming at anticipating public concerns on new technologies, the project aimed at answering to the strategic need of enhancing «research on appropriate ethical frameworks of new technologies» and «research on foresight of ethical issues likely to emerge in the context of the societal embedding of new technologies», as expressed by the first Area topic of the abovementioned Call. The project's objective was furthermore relevant for the Innovation Union commitment of providing European regulatory bodies with scientific evidence underpinning decision taking on science governance.

#### **SaS Action Plan**

Project's objectives are relevant with regards to action 29 (Help set up information and documentation observatory for ethical issues) of SaS Action Plan.

### **PROJECT RESULTS AND OUTCOMES**

#### **Main achievements according to project objectives**

The main achievement of the project was the **production and distribution of 2010 Eurobarometer Survey** on the Public Ethics and Socially Sensitive Technologies and the related in-depth analyses of data, compared both diachronically and transnationally. Main results and outcomes were:

- A **battery of interviews with national stakeholders** (10 to 17 interviewees per country), investigating the situation and state-of-the-art of sensitive technologies as far as the public consensus and national governance are concerned. The interviews highlighted a number of tendencies for different technologies in different countries and the impossibility of considering countries as 'pure cases';
- **Questionnaire and survey design** for the 2010 Eurobarometer Survey on the Life Sciences and Sensitive Technologies; effective translation of the questionnaire into different European languages;
- **Designing sophisticated statistical procedures** in order to exploit 2010 Eurobarometer Survey data analyses more effectively: it led to an evaluation of the comparability of cross-national data, a clustering of Europeans in different latent classes, and an assessment on how values and attitudes are affected by multi-level systems in which they occur;
- The **production of two reports on the Eurobarometer Survey**, one exploiting the statistically analysed data and one focusing on national and transnational governance of Sensitive Technologies.

Progress of each WP including deliverables and associated milestones were sensitively delayed and the project lifetime doubled because of lack of financial funding for 2008 Eurobarometer Surveys. The wave of surveys was then procrastinated to 2010 and the project lifetime extended to 36 months. Those problems were promptly discussed and the coordinator effectively managed to let the Consortium achieve its expected results. Due to the procrastination of the Survey, deliverables due dates were re-scheduled and WP order were re-designed in the team Meetings and Workshops.

#### **Main achievements according to Programme objectives**

With the participation of the project in the production and analysis of the 2010 Eurobarometer Survey, the project contributed to produce research in the field of ethics of new technologies and to the early identification of ethical issues and the effectiveness of EU policy over the years 2007 – 2013. The surveys, attempted within the project activities, produced new knowledge on the relationship between science and society, with special regard for ethics and emerging: they contributed to form a framework through which it is also possible to predict technologies ethical issues likely to emerge in the context of the societal embedding of new technologies. These achievements are only indirectly linked to the expected impact for the relevant Activity line.

#### **Main achievements according to SiS Dimensions**

The STEPE project was relevant for the SiS Science and Ethics dimension. However, the focus of the research is more on public ethics and emerging technology, rather than on ethics, law and science, and therefore the project position within the dimensions is actually transversal, including interests for both public policies and laypeople engagement with and concerns about scientific progresses. Ex-ante identification of ethical issues for scientific research and the focus on ethical implications of innovation in technology are coexisting interests within the projects.

#### **DISSEMINATION AND ENGAGEMENT ACTIVITIES AIMED AT TRANSFERRING THE PROJECT RESULTS TO WIDER COMMUNITIES**

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The Consortium launched at the very outset of the project a web platform, which was updated during the period of life of the project with news and reports. This mirrors the initial dissemination plan, as far as the general public outreach is concerned. The dissemination activities addressing specific stakeholders were implemented after the survey analyses in the last months, and they included workshops, presentations and publications in order to inform academia and policy makers on project's outcomes, it was envisaged in the initial dissemination plan:

- **Workshops/Conferences:** "CNR Round table in Rome (2011)"; ECPR General Conference in Reykjavik (2011); "Public Communication in Science and Technology" Conference in Florence (2012); "Thinking Ahead: Bioethics and the Future, and the Future of Bioethics" in Rotterdam (2012); ESRC Festival of Methods and ESRA Conference in 2013; among others;
- **Publications:** at least two refereed publications in academic journals, one article online and one research report (see Publications table below).

#### **PROJECT IMPACTS**

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The impact of STEPE project was expected to be significant in three ways: by understanding the future development of trends in emerging sensitive technologies and by investigating the past trajectories of public concerns about them, the research was expected to help policy makers with valuable foresights; to foster a sound debate on public ethics, grounded on the project's surveys and findings; to produce an analysis method of data which would enhance the developments of standards for conducting statistical comparative research in social sciences. The Consortium included nine institutions with a high centrality (nine among the top 5%, of whom two among the top 1%), and two academic institutions very well positioned in the Leiden Ranking (the Coordinator LSE ranking 56<sup>th</sup> and Stuttgart University 90<sup>th</sup>).

The STEPE project **actual impacts** can be classified into:

- **Scientific impact:** As reported in the last table of this document, two refereed articles related to the project have been published. Furthermore, a number of related publications have been distributed. That suggests a positive effect of the project from the scientific point of view: the number of publications related to STEPE is above the average number of scientific outputs of SiS projects (0,5 publication per project).
- **Institutional impact:** Among the outcomes of the project there is the design of the 2010 Eurobarometer Special Survey on the Public Ethics and Socially Sensitive Technologies and the analysis of its data.
- **Social media impacts:** There has been no relevant social impact in terms of social media listening buzz results. That can be partially explained by the specialised approach of the project and by the relatively low commitment of the Consortium in the outreach of the research findings among laypeople.

## PATH-BREAKING ADVANCEMENTS

The STEPE project investigated the public concerns about sensitive technologies. The project was innovative in contributing to design standards to implement the early identification of potentially controversial technological developments and related public ethics. Its methodology implies the consideration of both key stakeholders points of view in technological, political and societal life and the perception of European citizens and Member States.

## BEST PRACTICES

No best practice could be identified.

## EU ADDED VALUE OF THE PROJECT

The Consortium stated that its key role in designing and processing the 2010 Eurobarometer Survey on the Public Ethics and Socially Sensitive Technologies was made possible thanks to the participation of the project into the FP7 Programme and the European dimension of this cooperation. In fact, without producing an ad hoc questionnaire and involving more than 27,000 citizens Europe-wide, the validity of the survey would have been compromised.

## PARTICIPANTS AND RESEARCH TEAM

### Participants

Number of participants: 13

Number of countries involved: 10

	Type	Country	Role	Previous participations to FP
LONDON SCHOOL OF ECONOMICS AND POLITICAL SCIENCE		GB	Coordinator	100
UNIVERSITÀ DEGLI STUDI DI SIENA		IT	Participant	62
UNIVERSITY OF ESSEX		GB	Participant	57
TALLINN UNIVERSITY OF TECHNOLOGY		EE	Participant	44
UNIVERSITY OF LINZ		AT	Participant	69
INSTITUTO DE BIOLOGIA MOLECULAR E CELULAR – IBMC		PT	Participant	20
POMPEU FABRA UNIVERSITY		ES	Participant	140
UNIVERSITY OF STUTTGART		DE	Participant	233
ECOLE DES HAUTES ETUDES EN SCIENCES SOCIALES		FR	Participant	32
CENTRO DE INVESTIGACAO E DE INTERVENCAO SOCIAL ASSOCIACAO		PT	Participant	4
BAHCESEHIR UNIVERSITESI FOUNDATION		TR	Participant	6
AUSTRIAN ACADEMY OF SCIENCES		AT	Participant	70
UNIVERSITY OF AALBORG		DK	Participant	135

## Team Composition

Team Size: members\*

GENDER				
Female		Male		Unknown
32%		68%		0%
SENIORITY				
Average		Junior		Senior
16%		0%		84%
PhD				
No			Yes	
11%			89%	
BACKGROUND				
Applied Sciences	Health Sciences	Humanities & Social Sciences	Natural Sciences	Unknown
5%	21%	63%	11%	0%

\*The data are based on the analysis of the provided project's Description of Work.

## DELIVERABLES AND PUBLICATIONS

DELIVERABLE NO.	DELIVERABLE NAME	DUE DATE OF DELIVERY (month)	ACTUAL SUBMISSION DATE: (month)
D1	Project Management Structure	1	14
D2	Project meetings minutes	1	14
D3	Web site completed	2	14
D4	Interview guidelines	2	14
D5	Mapping of key issues for the survey	4	14
D6	Coding frame	4	14
D7	Sets of batteries of new survey questions (in English)	5	14
D8	Batteries of survey questions translated into several EU languages actual title: Mapping of key issues for the Survey and Challenges to Sustainable Technological Development	6	14
D9	Survey questionnaire, including D5, D7 and D8 actual title: First Periodic Report Month 1-18	8	?
D10	Briefing note on 'challenges to sustainable technological development', including D4 and D6 actual: Batteries of survey questions translated into several EU languages		
D11	First project activity and financial report Actual title: Final Survey Questionnaire	12	
D12	Tables of descriptive statistics for all European member states	15	
D13	Tools for cross-national analysis: Comparative assessment of survey indicators	17	
D14	Report on the 2008 Eurobarometer survey on Public Ethics and Socially Sensitive Technologies, including D12	18	
D15	Tools for cross-national analysis: Segmenting European citizens by attitudes towards science and technology	20	
D16	Tools for cross-national analysis: Segmenting European countries by attitudes towards science and technology actual title: Getting the most out of cross-national data. A user guide on statistical methodologies for cross-national comparisons (including D12-d15)	20	44
D17	Tools for cross-national analysis: Multi-level analysis of citizens in their national contexts actual title: Tables of descriptive statistics for all European member states	20	
D18	Technical report on statistical methodologies for cross-national comparisons, including D13, 15, D16 and D1 actual title: Europeans and Biotechnology in 2010: Winds of change?	22	



Stock-taking and meta-analysis of Science in Society projects throughout FP6 and FP7  
Final Case Studies

DELIVERABLE NO.	DELIVERABLE NAME	DUE DATE OF DELIVERY (month)	ACTUAL SUBMISSION DATE: (month)
D19	<i>Report on Technological Policy and Public Ethics in Europe</i> <i>actual title: Sensitive technologies and European Public Ethics: 40 years of modern biotechnology</i>	24	50
D20	<i>Second project activity and financial report</i>	24	
D21	<i>Final project reports</i> <i>actual title: Final plan for the use and dissemination</i>	24	
D22	<i>Final plan for the use and dissemination of foreground, including D1, D2, D3, D11, D20 and D21</i>	24	—

Publications no.	PUBLICATION	LINK (when available)
	<i>Gaskell, G.; Allansdottir, A.; Allum, N.; Castro, P.; Esmer, Y. et al. [...] (2011) "The 2010 Eurobarometer on the life sciences". Nature Biotechnology, No. 29 (2).</i>	
2.	<i>Degelsegger, A.; Torgersen, H. (2011) "Participatory paternalism – Citizens' conferences in Austrian technology governance". Science and Public Policy, 38/5.</i>	
3.	<i>Degelsegger, A.; Torgersen, H. (2010) Instructions for being unhappy with PTA – The impact on PTA of Austrian technology policy experts' conceptualisation of the public. ITA-manu:script 10-2.</i>	<a href="http://epub.oeaw.ac.at/ita/ita-manuscript/ita_10_02.pdf">http://epub.oeaw.ac.at/ita/ita-manuscript/ita_10_02.pdf</a>
4.	<i>Gaskell, G.; Stares, S.; Allansdottir, A.; Kronberger, N.; Hampel, J. et al. (2010) Europeans and Biotechnology in 2010: Winds of Change? A report to the European Commission's Directorate-General for Research on the Eurobarometer 73.1 on Biotechnology; FP7 project 'Sensitive Technologies and European Public Ethics' [STEPE]. London School of Economics: London</i>	<a href="http://ec.europa.eu/public_opinion/archives/s/ebs/ebs_341_winds_en.pdf">http://ec.europa.eu/public_opinion/archives/s/ebs/ebs_341_winds_en.pdf</a>

## MAIN SOURCES

STEPE Consortium (2007). Description of Work. Annex I.  
 STEPE Consortium (2009). Project meetings minutes.  
 STEPE Consortium (2009). Mapping of key issues for the Survey and Challenges to Sustainable Technological Development.  
 STEPE Consortium (2009). First Periodical project activity and financial report.  
 STEPE Consortium (2011). Getting the most out of cross-national data. A user guide on statistical methodologies for cross-national comparisons (including D12-d15)  
 STEPE Consortium (2011). Europeans and Biotechnology in 2010: Winds of change?.  
 STEPE Consortium (2011). Sensitive technologies and European Public Ethics: 40 years of modern biotechnology.  
 STEPE Consortium (2011). Final plan for the use and dissemination of foreground.  
 Websites:  
<http://www.oeaw.ac.at/ita/en/projects/stepe/overview/>  
<http://www.oeaw.ac.at/ita/en/projects/stepe/publications/>  
[http://ec.europa.eu/public\\_opinion/archives/eb\\_special\\_359\\_340\\_en.htm](http://ec.europa.eu/public_opinion/archives/eb_special_359_340_en.htm)

## **RISING PAN-EUROPEAN AND INTERNATIONAL AWARENESS OF BIOMETRICS AND SECURITY ETHICS - "RISE"**

**Framework Programme: FP7-SiS**

**Action line/Part: 5.1 A more dynamic governance of the science and society relationship**

**Activity: 5.1.2 Developing governance to anticipate and clarify political, societal and ethical issues**

**Area: 5.1.2.2 Conditions for an informed debate on ethics and science**

**Dimension: Science and Ethics**

**Tool: Coordination and support action**

**Project Call For Proposal: FP7-SCIENCE-IN-SOCIETY-2008-1**

**Status: Closed**

**Total cost: € 1 016 686,35**

**Total EU funding: € 919 501**

**Website: <http://www.riseproject.eu/>**

**Period: 01/03/2009 - 29/02/2012**

**Subjects: Security**

**Project ID and Acronym: ID: 230389, ACRONYM: RISE**

### **BACKGROUND AND CONTEXT OF THE PROJECT AND STRATEGIC NEEDS**

Ethical aspects of Biometrics and Security Technologies constitute a crucial topic for an ethically sustainable development of European research, economy and society. Transnational and international dialogue was already promoted by the international conferences on Ethics and Biometrics organised by the EC DG Research in Brussels (2005) and by the US DHS Privacy Office in Washington DC (2006). Moreover, the new political landscape determined by the Treaty of Lisbon of the European Union welcomed upcoming reforms and decisions regarding rules for security. There was then a need to investigate these new issues from the point of view of the possible ethical and political implication. The new situation determined by Treaty needed to be analysed from the perspective of the relationship between ethics and biometrics/security technologies and the new issues to be discussed on the international scale.

### **SPECIFIC PROJECT OBJECTIVES**

The project aimed at raising awareness and fostering a transnational and international dialogue on ethical aspects of Biometrics and Security Technologies. In particular, the specific objectives of the project were:

- to organise an international Conference in China to discuss on ethical, social and privacy aspects of biometrics and security technology;
- to convey three preparatory stakeholder workshops and a final European multi-stakeholder conference in order to increase stakeholders' involvement in setting technology security policies in Europe;
- to organise, in Europe, the fourth International Conference on ethical, social and privacy implications of biometrics; and
- to launch a permanent international interest group devoted to this topic.

### **SaS/SiS programme objectives/Action lines**

The objectives of the project could indirectly foster innovation by providing key policy makers in Europe and in European countries, as well as on the international scale, with theoretical instruments to tackle growing societal challenges, such as those regarding the growing need for security *versus* respect of privacy.

The project's conferences are a chance to call for trans-national efforts towards common research agendas on grand-challenges. Fostering international dialogue and implementing a common framework of debate with Asian countries is also relevant for the cross-cutting priority of ERA of enhancing international cooperation on research and innovation. The purpose of the project is in line with 2008 SiS priority of highlighting some key 'Science in Society' topics at the European (and global) levels, topics which concern all the European citizens and for which a workable stock of knowledge can be exploited in the shorter term. In particular, among the project's objectives are specifically actions to continue the dialogue started with the international conferences in Brussels and Washington DC. The fulfilment of these objectives is a prerequisite for enhancing the integration of society's aspirations and concerns, and fundamental ethical principles in research policy.

### **SaS Action Plan**

Project's objectives are relevant for a number of actions within the SaS Action Plan, such as action 30 (establish public dialogue in Europe on ethics and science) and 33 (develop international dialogue on ethical issues), but also action 31 (raise researchers' awareness of ethical issues).

## PROJECT RESULTS AND OUTCOMES

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### Main achievements according to project objectives

The project consortium successfully **organised ten events worldwide**: several conferences and workshops were arranged in Asia (four events), North America (one event) and in European countries (five events). At the same time, the Consortium implemented a set of networking and capacity building activities. The duration of the project was 36 months and RISE's main results and outcomes can be summarised as follows:

- the **organisation of 4 conferences in Asia**, including one in New Delhi (2009), one in Hong Kong (3<sup>rd</sup> International conference of biometric and international data sharing, 2010), one in Taipei (2010) and one in Beijing (2011); the **organisation of 3 stakeholder workshops and one multi-stakeholder workshop in Europe**; the **arrangement of a EU-US meeting** in Washington and the **arrangement of the final conference** of the project in Brussels; this action included the **production of conference proceedings and meeting reports**, which helped epitomising and disseminating the findings and the conclusions of the events;
- the **arrangement of a dissemination and networking campaign**, including press release for each event, networking (675 contacts from USA, Europe and Asia, including representatives from Government, Industry, Academia and Civil Society Organizations), and a public awareness campaign; networking activities included the establishment of a **special interest group** on biometrics within the European Association of Biometrics;
- the **launch of the project web site** as documented in the Dissemination section below;

The Consortium decided to add two other international meetings, one in New Delhi in preparation of the Hong Kong 3<sup>rd</sup> Conference and one in Washington in preparation of the Final Conference. Furthermore, it managed to successfully involve another China-based institution within the activities, resulting in the organisation of the Taipei and Beijing Conferences, which had not been envisaged at the outset of the project. Furthermore, the organisation of the 4<sup>th</sup> International Conference of biometric and international data sharing, expected for 2011 was procrastinated to 2012, outside the funding scheme, and substituted by the Final European conference of RISE. Progress of each WP including deliverables and associated milestones were generally submitted on due time during the project lifetime, except for some minor delay, always reported and carefully explained in subsequent reports. Some problems concerning the project management were encountered, mainly because of the liquidation of EBF, one of the partners. However, this partner's work package was promptly re-allocated and major delays were avoided.

### Main achievements according to Programme objectives

The project positively answered to the need, expressed in 2008 Call for Proposals of SiS Programme, of promoting pan-European and international awareness of the ethical aspects of security technologies (activity line 5.1.2.2). The project not only implemented several events in order to foster an international dialogue among stakeholders, but also disseminated widely the results of these meetings. The geographical coverage requested by the Call was successfully achieved: the Consortium in fact welcomed attendees from 22 countries, both European and non-European. Activities of the project successfully discussed on and structured networks in science and ethics-related issues.

### Main achievements according to SiS Dimensions

The project participated in the 'Science and Ethics' dimension of SiS. The debates and meetings conducted by the Consortium addressed the ethical framework of emerging Security technologies from an international and comparative perspective. This outcome was then in line with the trend that sees efforts on formulating ethical frameworks of new technologies, as a phasing-in activity within the dimension. On the other side, several stakeholders were successfully engaged in the debate and the resulting network database is an evidence of the fact that capacity building activities and creation of transnational platforms were central within Science and Ethics dimension in FP7.

## DISSEMINATION AND ENGAGEMENT ACTIVITIES AIMED AT TRANSFERRING THE PROJECT RESULTS TO WIDER COMMUNITIES

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An important dissemination and networking campaign was carried out during the project.

The Consortium could count on a list of 200 press and communication contacts and exploited them in the publication of 13 **press releases**, advertising the events and outcomes of the project. The media coverage of the project, especially on online platforms and webzines, was consistent. The Consortium also produced and distributed two sets of Toolkits, a Policy Toolkit and a Toolkit for Industry, along with a newsletter (4 issues), which was not included in the initial dissemination plan. The partners **presented the outcomes of the project also in national and international venues**, namely a total of 16 events such as conferences, seminars and congresses relevant to the theme of security technologies and privacy as an ethical issue. A number of academic **publications** resulted by the project's activities, such as 10 peer-reviewed articles, 4 non reviewed articles and 3 policy briefs, along with the proceedings of major conferences.

The newsletters and the production of abstracts for presentations were produced as an "extra" to the initial programme. The network campaign included 675 contacts from 3 continents.

It should be also underlined that the attendance to the Final conference and the set of contacts mobilised within the networking campaign covered 22 countries: some of them were European, such as Austria, Belgium, Estonia, France, Germany, Greece, Italy, Luxembourg, Norway, Portugal, Spain, Switzerland, The Nederland, UK, European Union institutions; and some were extra-European, such as China, India, South Korea, Taiwan, Russia, United States, South Africa. Furthermore, all main stakeholder categories were represented such as industry, academia, policy makers, data protection authorities, independent think-tanks.

The dissemination activities included the project web site, which was an information-based web platform that included several sections presenting Consortium partners, project's activities, objectives, events, documents and news. It also included links to Twitter and LinkedIn profiles. The website was visited by at least 10,000 users during the lifetime of the project.

The project's initial dissemination plan also included the exploitation of social media and blogs, which however were not effectively used for dissemination, because of the lack of rich media to distribute and the lack of time. Links to external websites in the network database were included instead.

## PROJECT IMPACTS

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At the outset of the project, RISE was expected to largely **exploit the already existing networks in the field** of Technology and Ethics and the well positioned partners' links in order to contribute towards a better coordination and collaboration between national actors at the European and international levels on important ethical issues of European significance, as expressed in the SiS 5.1.2.2.1 action line.

As already mentioned with regard to the project objectives, RISE was intended to exploit already existing networks. To this end, the Consortium showed a good potential, given that two institutions ranked among the 5% most central in FP7. Being central means that the organisation does not only participate in several projects in the FP but it also participates with other important organisations, and has a high capacity to diffuse and spread information and knowledge, which increases the potential impact of the project.

The potential impact of the project was also favoured by the fact that two academic institutions were among the 1% most central in FP7 and ranked at 516<sup>th</sup> and 601<sup>st</sup> in the Leiden University Ranking.

As for the project actual impacts, these were:

- **Scientific impact:** the **scientific impact** of the project went far beyond the expectations: 10 peer-reviewed articles were published and 4 more publications were disseminated.
- **Social media impact:** the project had a moderate **social media impact**, as the Consortium itself admitted in its final reports: 50 posts were counted from the outset of the project to 2/2014
- **Institutional and organisational impact:** The actual impact of the project regards the implementation of an international multi-stakeholder dialogue about the ethical framework of biometrics and emerging security technologies, which took place through the conferences organised following the initial Description of work and the two extra meetings convened by the Chinese partner, involved in the network thanks to the successful communication and mobilisation campaign of the Consortium. The project successfully organised the 3rd International Conference on ethics and biometrics organised by the EC DG Research and the US DHS Privacy Office respectively in Brussels and Washington DC in 2005 and 2006 and announced a forthcoming 4<sup>th</sup> Conference but it has not been possible to find any data about any new related institutional event beyond the end of the project life. Furthermore, in occasion of the Final Conference a new organ of EAB European Association of Biometrics was presented: EAB Special Committee on Ethical, Social and Privacy aspects of Biometrics, chaired by the coordinator of the RISE project, and driven by RISE. All RISE partners have been formally enlisted in this Committee. On February 2012, during EAB foundational meeting in Brussels, the Committee presented its charter.
- **Policy impact:** No policy impact was reported for this project.

## PATH-BREAKING ADVANCEMENTS

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The activities carried out within the project were shaped as the continuation of an on-going international dialogue on ethical issues related to security technologies, therefore no path-breaking advancements were reported.

## BEST PRACTICES

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It is to mention that the policy brief on "Whole body imaging at airports checkpoints: the ethical and policy context", formulated jointly by the Consortium of RISE and that of its sister project HIDE, was included into the DG RTD book on Responsible Research and Innovation. The book epitomises the foreground outcomes of more than 20 EU funded research projects on societal and stakeholders involvement in technological change.

## EU ADDED VALUE OF THE PROJECT

The EU added value of the RISE project was not mentioned in the project reports or in the Description of work. Anyway, the European dimension undoubtedly helped the project in shaping cross-continent comparisons with Asia and North America, as well as in enhancing the high profile of guests and speakers in the Conferences, and in building the expected international network.

## PARTICIPANTS AND RESEARCH TEAM

### Participants

Number of participants: 10

Number of countries involved: 10

	Type	Country	Role	Previous participations to FP
CENTRE FOR SCIENCE, SOCIETY AND CITIZENSHIP		IT	Coordinator	20
NATIONAL CHENGCHI UNIVERSITY		TW	Participant	1
UNIVERSITY OF LANCASTER		GB	Participant	108
HONG KONG POLYTECHNIC UNIVERSITY		HK	Participant	2
GLOBAL SECURITY INTELLIGENCE		US	Participant	1
EUROPEAN BIOMETRIC FORUM		IE	Participant	2
UNIVERSITY OF TARTU		EE	Participant	101
DATA SECURITY COUNCIL OF INDIA		IN	Participant	1
CENTER FOR POLICY ON EMERGING TECHNOLOGIES		US	Participant	1
ARISTOTELES UNIVERSITY OF THESSALONIKI		GR	Participant	146

### Team Composition

Team Size: members\*

GENDER				
Female		Male		Unknown
0%		0%		0%
SENIORITY				
Average		Junior		Senior
0%		0%		0%
PhD				
No				Yes
0%				0%
BACKGROUND				
Applied Sciences	Health Sciences	Humanities & Social Sciences	Natural Sciences	Unknown
0%	0%	0%	0%	0%

\*The data are based on the analysis of the provided project's Description of Work.

## DELIVERABLES AND PUBLICATIONS

DELIVERABLE NO.	DELIVERABLE NAME	DUE DATE OF DELIVERY (month)	ACTUAL SUBMISSION DATE: (month)
D1.1	Kick off meeting Report	1	1
D1.2	Project logo & brochure	2	4
D1.3	Web site launching Report	3	5
D2.1	India Preparatory Meeting Report	5	10
D2.2	HK Conference Report	13	15
D2.3	Conference Position Paper	16	15
D3.1	Stakeholder Group Workshop 1 Report	9	10
D3.2	Stakeholder Group Workshop 2 Report	15	15
D3.3	Stakeholder Group Workshop 3 Report	19	20
D3.4	Multi Stakeholder Meeting Report	22	24
D4.1	Preparatory Meeting Report	29	29

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DELIVERABLE NO.	DELIVERABLE NAME	DUE DATE OF DELIVERY (month)	ACTUAL SUBMISSION DATE: (month)
D4.2	4th Conference Report	36	36
D4.3	Taiwan Conference Report	(22)	22
D4.4	Beijing Conference Report	(33)	33
D5.1	Press and Communication Yearly Report	12, 24, 36	12, 25, 36
D5.2	Web Site Yearly Report	12, 24, 36	12, 25, 36
D5.3	Policy Brief Yearly Report	12, 24, 36	19, 31, 37
D5.4	International Networking Report	12, 24, 36	1, 25, 36
D5.5	Public Awareness Report	12, 24, 36	13, 25, 37
D6.1	Mid-term Activity & Financial Reports	18	19
D6.2	Final Activity & Financial Reports	36	36

Publications no.	PUBLICATION	LINK (when available)
	Vinayak Godse, "Building an Ecosystem for Cyber Security and Data Protection in India", in: A. Kumar and D. Zhang (Eds.), <i>Ethics and Policy of Biometrics, ICEB 2010, LNCS 6005, Springer-Verlag Heidelberg 2010, pp. 138-145.</i>	
2.	Margit Sutrop, "Ethical Issues in Governing Biometric Technologies", in: A. Kumar and D. Zhang (Eds.), <i>Ethics and Policy of Biometrics, ICEB 2010, LNCS 6005, Springer-Verlag Heidelberg 2010, pp. 102-114</i>	
3.	Emilio Mordini, <i>Policy Report: "Whole Body Imaging at Airport Checkpoints: The Ethical and Policy Context"</i> , in: R. von Schomberg (Ed.), <i>Towards Responsible Research and Innovation in the Information and Communication Technologies and Security Technologies Fields, Brussels: Directorate General for Research and Innovation of the European Commission, 2011, pp. 165-209.</i>	
4.	Emilio Mordini and Andrew P. Rebera, "No Identification without Representation: Constraints on the Use of Biometric Identification Systems", <i>Review of Policy Research, Volume 29, Number 1, 2012, pp. 5-20</i>	
5.	Margit Sutrop and Katrin Laas-Mikko, "From Identity Verification to Behavior Prediction: Ethical Implications of Second Generation Biometrics", <i>Review of Policy Research, Volume 29, Number 1, 2012, pp. 21-36.</i>	
6.	Alan Gelb and Caroline Decker, "Cash at Your Fingertips: Biometric Technology for Transfers in Developing Countries", <i>Review of Policy Research, Volume 29, Number 1, 2012, pp.91-117</i>	
7.	Harry Wechsler, "Biometric Security and Privacy Using Smart Identity Management and Interoperability: Validation and Vulnerabilities of Various Techniques", <i>Review of Policy Research, Volume 29, Number 1, 2012, pp. 63-89</i>	
8.	Chi-shing Chen, "Privacy and the New Legal Paradigm: Tradition and Development in Taiwan", <i>Review of Policy Research, Volume 29, Number 1, 2012, pp. 119-130.</i>	
9.	Kamlesh Bajaj, "Promoting Data Protection Standards through Contracts: The Case of the Data Security Council of India", <i>Review of Policy Research, Volume 29, Number 1, 2012, pp. 131-139.</i>	
10.	Paul McCarthy, "Biometric Technologies", in: Chadwick, Ruth (Ed.), <i>Encyclopaedia of Applied Ethics, 2nd Edition, Amsterdam: Elsevier, 2012.</i>	
11.	Silvia Venier (CSSC); <i>Global Mobility and Security, Biometrics Technology Today, May 2010 (non peer-reviewed)</i>	
12.	Emilio Mordini (CSSC); <i>Establishing trust in biometrics use, CORDIS Market place, March 2011 (non peer-reviewed)</i>	
13.	Silvia Venier (CSSC); <i>BIRD platform for responsible innovation takes wing, Biometrics Technology Today, May 2011 (non peer-reviewed)</i>	
14.	Emilio Mordini (CSSC); <i>Bin Laden and biometrics - killing two birds with one stone?, Planet biometrics e-newsletter, September 2011 (non peer-reviewed)</i>	

## MAIN SOURCES

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<http://www.riseproject.eu/>

- RISE Consortium (2008). Description of Work. Annex I.
- RISE Consortium (2009). Kick off meeting Report.
- RISE Consortium (2009). Web site launching Report.
- RISE Consortium (2009). International Networking Report.
- RISE Consortium (2010). Hong Kong Conference Report.
- RISE Consortium (2010). Taiwan Conference Report.
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- RISE Consortium (2010). Press and Communication Yearly Report.
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- RISE Consortium (2011). Policy Brief Yearly Report. 2nd Edition.
- RISE Consortium (2011). International Networking Report. 2nd Edition.
- RISE Consortium (2011). Public Awareness Report. 2nd Edition.
- RISE Consortium (2012). Final Conference Report.
- RISE Consortium (2012). Press and Communication Yearly Report. 3rd Edition.
- RISE Consortium (2012). Web Site Yearly Report. 3rd Edition.
- RISE Consortium (2012). Policy Brief Yearly Report. 3rd Edition.
- RISE Consortium (2012). International Networking Report. 3rd Edition.
- RISE Consortium (2012). Public Awareness Report. 3rd Edition.
- RISE Consortium (2012). Final Activity & Financial Reports.



## **ETHICAL AND REGULATORY ISSUES RAISED BY SYNTHETIC BIOLOGY "SYNTH-ETHICS"**

**Framework Programme: FP7**

**Action line/Part: 5.1 A more dynamic governance of the science and society relationship**

**Activity: 5.1.1 Better understanding of the place of science and technology in society**

**Area: 5.1.1.2 Research on ethics in science and technology**

**Dimension: Science and ethics**

**Tool: Collaborative project**

**Project Call For Proposal: FP7-SCIENCE-IN-SOCIETY-2008-1**

**Status: Closed**

**Total cost: € 770 608.00**

**Total EU funding: € 531 276.00**

**Website: <http://www.synthethics.eu> (offline)**

**Period: 1 March 2009 – 31 August 2011**

**Subjects: Ethics**

**Project ID and Acronym: 230464 Synth-Ethics**

### **BACKGROUND AND CONTEXT OF THE PROJECT AND STRATEGIC NEEDS**

Synthetic biology contains huge promises for society, but also large potential perils. The field has been defined as the engineering of biological components and systems that do not exist in nature and the re-engineering of existing biological matters. Back in 2008, at the beginning of the project Synth-Ethics, synthetic biology has been a promising new area of research and at a very early stage. More precisely, it has been at a stage that ethical and legal analysis should be attempted, based on transdisciplinary research, including expertise in various disciplines such as ethics, law, science and technology foresight. Given the experiences with related areas of R&D (such as biotechnology, nanotechnology and converging technologies) and applications (e.g. GMO crops), it is of utmost importance to integrate the whole range of ethical, legal and societal aspects and concerns from the start of this emerging science and technology area. It is also arguable that the general public needs to be made aware of the implications of this new engineering approach to biology, and to be enabled to have a qualified position into the manner in which it is arrogated to be regulated. What has been needed to support EU level policies with respect to this new science and technology area was the early identification of ethical issues raised by synthetic biology, the anticipation of public concerns, a strategy to include stakeholders and experts and the public, and a common European understanding of a newly emerging area of science and technology. An early identification of ethical issues and S&T foresight exercise with respect to potential public concerns are therefore much needed.

### **SPECIFIC PROJECT OBJECTIVES**

In Europe, there is a wide range of socio-ethical, philosophical and socio-economic expertise on synthetic biology, biotechnology and related issues, but it is often dispersed and unconnected. With regard to this, the overall aim of the Synth-Ethics project was to contribute substantially to the development of a European socio-ethical approach to synthetic biology. The agenda-setting in the US was planned to be taken into account and was analysed, but the diversity of cultures and ethics in Europe and the political specificities ruled out a simple copy of the US approach. The project aimed at a proactive concept in which the specific European strengths and needs and wants, relevant public values and potential societal concerns are taken into account regarding the development of synthetic biology. The benefits of this emerging technology have to be safeguarded for society while minimising social costs.

The specific aims of the project are:

- To identify actual and emerging ethical and social issues raised by developments in synthetic biology and the embedding of the developed technologies in society;
- To trace and analyse the public discourse on these issues;
- To analyse whether ethical issues, and the concerns raised in the public discourse, can be adequately addressed with the current normative frameworks existing for synthetic biology and in closely related fields such as biotechnology and genetic engineering, and identify shortcomings; and
- To analyse topics in synthetic biology on which EU policy and regulation might be required and to make recommendations on these issues.

### **SaS/SiS Programme objectives/Activity Lines**

The specific aims of Synth-Ethics project are addressing one topic of the 2008 **FP7-SiS Work Programme** that has called for research about ethical frameworks of new and emerging science and technology areas in order to achieve insights on how socio-ethical issues in these areas could be considered in EU policy-making. Through several activities such as philosophical in-depth analysis of a number of relevant ethical and moral dilemmas regarding synthetic biology, in-depth analysis of the public discourse, and close interaction with different and relevant stakeholders that



altogether aim for the description of a relevant normative socio-ethical framework with regard to synthetic biology, Synth-Ethics is corresponding to this call.

### SaS Action Plan

Referring to the **Science and Society Action Plan**, the Synth-Ethics project clearly contributes to the goal to put responsible science at the heart of policy making, by analysing the current normative framework of synthetic biology in order to discuss challenges and related policy recommendations being associated to this framework (Action 32), and by establishing an international dialogue on ethical and social issues regarding synthetic biology with other regions of the world, in particular through the interaction with the US debate and active project participation of an Australian-based research partner. Regarding the **European Research Area**, the Synth-Ethics project can be seen as one pillar of jointly developing a European answer and amendment to the already on-going public dialogue on synthetic biology in the US. The project explicitly stated that the diversity of European cultures and the diversity of European ethical positions and other relevant expertise should not only be taken into account, but enrich the socio-ethical reflection on synthetic biology and strengthen its societal embedding.

## PROJECT RESULTS AND OUTCOMES

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### Project objectives

Synth-Ethics has defined four milestones for the project that are each corresponding with the mentioned objectives and defined deliverables that again allow for a measurement of a successful project realization. In addition, a meeting of the project team at each of the four milestones was planned in order to verify that the milestones are indeed achieved and managerial measures can immediately be taken if one of the milestones has not been achieved. Following milestones were formulated:

- **Identification of ethical issues and public discourse:** Synth-Ethics has produced a report on ethical and social issues raised by synthetic biology that was developed on the basis of literature studies, media analyses, and expert interview and workshops, and analyses of relevant data. The deliverable was produced in time.
- **Identification of normative frameworks:** Synth-Ethics has produced a report on relevant normative frameworks. It does so by reconstructing the legal and ethical frameworks applicable to synthetic biology in Europe, while referring to a broad notion of synthetic biology. Norms and standards deriving from both hard and soft regulations and are already in force for specific regulation purpose. The reason behind is to pursue a well-timed regulation policy that avoids the risk of insufficient regulation. Relevant regulation domains comprise environmental risks, biomedical applications, cosmetics regulation, intellectual property, bio-informatics, occupational health and human rights. On the basis of this analysis, it was maintained that respective parts of the normative frameworks of the areas analysed are applicable to synthetic biology.
- **Identification of gaps in normative frameworks:** This deliverable, being publicly available only in a draft version, is divided into several fields of investigation. It starts with the dual use problem, usually meant to refer to research, knowledge, technology, or materials that can be used for both beneficial/good and harmful purposes and which therefore raises ethical questions about the individual and collective responsibilities of scientists, government officials, public administrators and private sector actors. It calls for ethical decision-making (with individual and collective responsibilities) at different levels. The report concludes with the presentation of a small set of policy measures that might be implemented to address dual use threats that however should not be considered a "magic bullet" for preventing against risks and uncertainty.
- **Recommendations and dialogue:** The final deliverable presented the results of the Synth-Ethics project analysis of a number of reports and other documents that dealt with issues of synthetic biology governance and of the relevant research conducted. Recommendations were divided into the three categories consensual recommendations, ongoing controversies and other noteworthy recommendations concerning safety, security, economic prospects and expected scientific progress.

In the Synth-Ethics project a couple of activities were organized in order to generate useful inputs for the above mentioned milestones – and to communicate the relevant project results.

- **Project-internal workshops:** A small number of workshops were performed in the Synth-Ethics project. In the Synth-Ethics workshops, a large number of natural scientists, social scientists, philosophers and ethicists and other scholars participated:
  - 2009, 1<sup>st</sup> Workshop "*Perceived ethical issues by expert scientists working in synthetic biology*" in Delft (with unknown number of participants). A group of scientists and other experts with diverse backgrounds (science, industry, humanities, policy making) gave feedback to the workshop results, which was then included in the further course of the project.
  - 2011, 2<sup>nd</sup> Workshop "*Synthetic Biology – Hopes, Concerns & the Requirements of Fair and Rational Social Discourse*" in Karlsruhe (with unknown number of participants). It was a major Synth-Ethics public dialogue activity, where the opportunities and risks presented by synthetic biology and questions from the public audience were discussed. The stakeholder workshop not only included representatives of

several civil society organisations (such as “VivAgora”, „Für und Wider”; „Bio:Fiction Science, Art and Film Festival” and „Woodrow Wilson International Center for Scholars”), but also a wide range of European and international experts on science in society issues as well as representatives of the synthetic biology community and public policy actors. It was attended by scientists that were actively pursuing synthetic biology in their laboratories and social scientists familiar with public debates on emerging technologies, but also included the viewpoints of civil society organisations (CSOs), biotechnology industry, philosophy and ethics, theology, jurisdiction and governance, as well as the media. During the workshop it became clear that synthetic biology is an issue that is not only controversial and stipulating public interest, but also one that is complicated and rather unclear, partly due to the fact that it is difficult to define.

- **Project-external workshops:** In the project partners raised additional attention to the work done in Synth-Ethics on other workshops and meetings of related European and national projects and policy initiatives, for example:
  - In a workshop on Synthetic Biology (synbio) in January 2011 in Berlin in which representatives of major German research and technology organisations (RTOs) such as the Helmholtz Association of German Research Centres participated,
  - And in a meeting of a delegation of the French Parliamentary Office for Science and Technological Assessment (OPECST) with members of the Office of Technology Assessment at the German Parliament (TAB) in Berlin in August 2011.

Vice versa, project participants of some other related FP7 projects participated in the internal Synth-Ethics stakeholder workshop in Karlsruhe in June 2011.

- **Expert Input:** a questionnaire to gain input on scientists’ views on regulatory frameworks for synthetic biology was prepared. About 150 scientists working in synthetic biology and related fields were approached and asked to complete the questionnaire, which was Likert-scale-based but also contained open questions.
- **Interviews:** Within Synth-Ethics several expert interviews were conducted. These interviews informed a number of key experts as well about the project results. In addition dissemination of Synth-Ethics findings to a large group of younger life sciences students and academics was performed
- **Dissemination:** During the project, various means were used to communicate the Synth-Ethics results to the three main target groups: the synthetic biology research community, policy makers and public administration and civil society and general public. This included workshops, interviews, public dialogue activities, and various stakeholder meetings. In addition, leaflets with the main results of the project tailored to the needs of the target groups were produced. The leaflets were also used to disseminate main results of Synth-Ethics in a non-academic approach. A project website was developed and published the project results. The project website was linked to the project partners’ websites.

### Main achievements according to Programme objectives

The Synth-Ethics project was approaching central **Programme Objectives of the FP7-SiS Work Programme:** “to strengthen the scientific and technological bases and to build an open, effective and democratic European Knowledge society”. Moreover, the project aimed to stimulate the integration of scientific and technological progress and associated research and innovation policies in the European Union, by encouraging at the European scale socio-ethical reflection and dialogue on emerging science and technology issues – their relation with the whole spectrum of society and culture. That included amongst others society’s ambitions and concerns, and fundamental ethical principles, which need to be better integrated throughout the research and innovation process. In several respects, the Synth-Ethics project has contributed to these goals. For example, it aimed for the understanding of the normative and regulatory frameworks of synthetic biology in Europe and beyond, and thereby developed the basis for a code of conduct for future research activities and the integration of scientific results into on-going science-society debates. In order to do so, it had to connect several disciplines and fields of expertise. The Synth-Ethics project positioned itself at the intersection of ethics, technology assessment and technology foresight and law making for new technologies. The project built on insights and discussions from other emerging science and technology areas as biotechnology and nanotechnology. This has strengthened the networking and interconnection of research activities. Through interviews, expert workshops and panel discussions the project increased awareness regarding synthetic biology. The Synth-Ethics investigations have encouraged the up growth of a better-informed public when it comes to synthetic biology.

The Synth-Ethics project formulated the following expectations regarding its impacts regarding the “science and ethics” dimension in the FP7-SiS Work Programme:

- An improved quality of research on ethical aspects of new fields of science and technology.
- The early identification of ethical and social issues in synthetic biology and foresight actions regarding their relevance for the social embedding of new technologies related to.
- Strengthening and supporting the European synthetic biology science and research community, especially in their capability for dealing with ethical, legal and social issues.

- A positive contribution to the public debate on ethical issues of synthetic biology
- A contribution to the effectiveness of EU policy over the years 2007-2013 and beyond, on synthetic biology and other newly emerging technologies in “nano-bio” technology.

### **Main achievements according to SiS Dimensions**

In addition, in the Synth-Ethics project was contributing to the science education dimension by producing education material for synthetic biology as the public engagement dimension by facilitating the public dialogue and engaging with civil society.

### **DISSEMINATION AND ENGAGEMENT ACTIVITIES AIMED AT TRANSFERRING THE PROJECT RESULTS TO WIDER COMMUNITIES**

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To ensure successful dissemination of the project results and involvement of stakeholders and the general public, the dissemination plan in the Synth-Ethics Description of Work (DoW) included workshops, interviews, public dialogue actions, and various meetings amended by an external website, leaflets and booklets to transfer the project results to specific target groups. Members of the Synth-Ethics project consortium also used various opportunities to disseminate the project outcome in lectures and panel discussions, which were open or even targeted to the general public. Respective budget shares were foreseen for dissemination activities. All planned deliverables and information outcomes were submitted. The final dissemination plan provided more detail. For example, first and foremost interesting target groups were defined as European public policy-makers and interest groups in scientific research, technology and innovation (including scientists and engineers). In the second place, the project addressed civil society organisations (CSOs) and the general public. Only after these two target groups, academic communities were important for the Synth-Ethics dissemination activities. Although the academic outreach was not the main task of the Synth-Ethics project, in order to ensure as well that the results are widely disseminated scholarly communities, scientific articles were submitted to relevant science journals.

The project partners were engaged in a number of other related research projects such as the FP7 projects “*Synthetic biology for human health: Ethical and legal issues*” (SYBHEL) and “*The Landscape and Isobars of European Values in Relation to Science and New Technology*” (VALUE ISOBAR), the German national projects “*Engineering Life*” and “*Synthetische Biologie*”, and the “*Synthetic Biology Project*” of the Woodrow Wilson International Centre (USA). Contacts with various other European projects, including the projects EPOCH, Technolife, Nanonbio raise were also established. Furthermore, the Synth-Ethics project served an important point of reference for an on-going project on synthetic biology by the Office of Technology Assessment to the German parliament (TAB), which was commissioned by the German parliament to create a better information basis for decision-making on synthetic biology research funding, governance and regulation policies.

### **PROJECT IMPACTS**

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The **potential impact** in terms of enablers regarding the dissemination of Synth-Ethics project results can be assessed as relatively high, facing the circumstance that 4 of 6 participating organisations are among the top 1% of the most central organisations in the overall European Framework Programme network. The more central an organisation is the more it does not only participate in several projects in the Framework Programme, but it also participates with other relevant organisations, which is again increasing the occasions for networking and channels of information exchange and dissemination action. In addition, two of the participating organisations are highly ranked according to the Leiden European University ranking.

The Synth-Ethic project impacts can be classified into:

- **Scientific impact:** In order to ensure that the results of the project are also widely disseminated in scientific and scholarly communities, the Synth-Ethic project announced to not only distribute their main findings within their professional networks, but also to submit articles to relevant journals and pursue other publication plans. Several papers for submission to academic journals and book chapters were foreseen in the project. Two (non-peer reviewed) publications were finally submitted. With regard to publishing activities in scientific impact journals, it was stated that several publications need to be further developed before submitted.
- **Social media impact:** Apart from 34 social media posts, the Synth-Ethics project shows a close to zero collection and social media mentions.
- **Policy impact:** In an ex-post project evaluation it was stated that the Synth-Ethics project results are used by European policy makers in a variety of different areas. Specific gender equality actions were carried out in the Synth-Ethics project. On the basis of the results of the Synth-Ethics project, it can generally be concluded that much of the ethical debate on emerging science and technology issues is focusing on potential risks and uncertainties. This leads in general to a rather restrictive governance of technology in emerging areas. The ethical and social assessment of science and technology is criticised in not sufficiently contributing to a positive shaping of science and technology. Patents play an important role in how investments in research, technology and innovation is motivated. This also goes for synthetic biology. However, the idea that

rewarding intellectual achievement through patents, is showing an innovation systems failure; it seems that certain innovations are not in the interest of large patent holders. Ethical assessments often miss out this issue.

### PATH-BREAKING ADVANCEMENTS

The Synth-Ethics project assessed which aspects of synthetic biology might give rise to ethical and social problems. As such it contributed to a more adequate and proactive approach to the ethical aspects of synthetic biology related technologies. All activities targeted to the general public had to take into account the fact that synthetic biology is not yet clearly delineated from other areas of biotechnology and the life sciences. Furthermore, it had to be taken into account that synthetic biology technologies are not yet out on the market and large parts of research is still basic research. Synth-Ethics project activities therefore had a precautionary character, following the rationale that public involvement should start at an early stage of development and not be postponed to shortly when products are to be introduced into the market. The Synth-Ethics project concept, identification of recent normative and regulatory frameworks and identification of relevant socio-ethical issues with regard to the new emerging science and technology area synthetic biology can be seen as advancement and good practice approach.

### EU ADDED VALUE OF THE PROJECT

The Synth-Ethics project contributed to a common understanding of synthetic biology and the ethical, legal and social aspects involved with this new emerging science and technology area across Europe, and beyond. The project provided a sound basis for subsequent European Union policy-making regarding synthetic biology science and technology governance and regulation, also by cooperation and using synergies with other EU-funded and international projects. Thus, the Synth-Ethics project can be estimated as having a high European added value regarding, for example, international cooperation in research on ethical and social issues of synthetic biology as the visibility of socio-ethical issues and public expectations and concerns regarding synthetic biology across the European Union and at an international scale.

### PARTICIPANTS AND RESEARCH TEAM

#### Participants

Number of participants: 6

Number of countries involved: 5

	Type	Country	Role	Previous participations to FP
DELFT UNIVERSITY OF TECHNOLOGY	HES	NL	Coordinator	79
LONDON SCHOOL OF ECONOMICS AND POLITICAL SCIENCE	HES	GB	Participant	38
FORSCHUNGSZENTRUM KARLSRUHE	HES	DE	Participant	314
NEDERLANDSE ORGANISATJE VOOR TOEGEPAST-NATUURWETENSCHAPPELIJK ONDERZOEK	REC	NL	Participant	n/a
UNIVERSITÀ DEGLI STUDI DI PADOVE	HES	IT	Participant	n/a
AUSTRALIAN NATIONAL UNIVERSITY	HES	AU	Participant	9

#### Team Composition

Team Size: members\*

GENDER		
Female	Male	Unknown
27%	73%	0%
SENIORITY		
Average	Junior	Senior
27%	20%	53%
PhD		
No	Yes	
13%	87%	

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BACKGROUND				
Applied Sciences	Health Sciences	Humanities & Social Sciences	Natural Sciences	Unknown
7%	7%	87%	0%	0%

\*The data are based on the analysis of the provided project's Description of Work.

### DELIVERABLES AND PUBLICATIONS

DELIVERABLE NO.	DELIVERABLE NAME	DUE DATE OF DELIVERY (month)	ACTUAL SUBMISSION DATE (month)
D1	Report on ethical issues raised by synthetic biology and on the public discourse	12th month	12th month
D2	Report on relevant normative frameworks	15th month	16th month
D3	First project activity and financial report	18th month	18th month
D4	Report of gaps in the current normative frameworks	21st month	n/a
D5	Report with recommendations	30th month	n/a
D6	Second project activity and financial report	30th month	n/a
D7	Dialogue events	24th to 30th month	n/a
D8	Website, leaflets, booklets / briefing papers for various target groups	1st to 30th month	1st to 30th month

PUBLICATION NO.	PUBLICATION	LINK (when available)
1	"Synthetic biology, a problem of semantics?"	
2	"Synthetic biology as engineering science."	

### MAIN SOURCES

230464\_1\_1\_Report on Ethical issues  
 230464\_2\_2\_Report on relevant normative frameworks  
 230464\_3\_4\_Report on gaps in current normative frameworks  
 230464\_4\_5\_Report with recommendations  
 230464\_5\_3\_Periodic\_activity\_report Synth-Ethics first period  
 230464\_5\_10\_SynthEthics\_Dissemination plan  
 230464\_Final\_Report-12\_20120508\_154547\_CET

## **THE LANDSCAPE AND ISOBARS OF EUROPEAN VALUES IN RELATION TO SCIENCE AND NEW TECHNOLOGY "VALUE ISOBARS"**

**Framework Programme: FP7-SiS**

**Action line/Part: 5.1 A more dynamic governance of the science and society relationship**

**Activity: 5.1.1 Better understanding of the place of science and technology (S & T) in society**

**Area: 5.1.1.2. Research on ethics in science and technology**

**Dimension: SCIENCE AND ETHICS**

**Tool: Collaborative project**

**Project Call For Proposal: FP7-SCIENCE-IN-SOCIETY-2008-1**

**Status: Closed**

**Total cost: € 1 085 295.4**

**Total EU funding: € 819 971.00**

**Website: <http://www.value-isobars.eu/>**

**Period: 01/06/2009- 30/11/2011**

**Subjects: Research ethics – Scientific research**

**Project ID and Acronym: ID: 230557, ACRONYM: VALUE ISOBAR**

### **BACKGROUND AND CONTEXT OF THE PROJECT AND STRATEGIC NEEDS**

Lay people's response towards new research and technology is often ambivalent: civil society has often shown concerns towards development in science and technology but, at the same time, it typically shows a positive attitude towards knowledge and technological innovation. This depends on structures of values underpinning the response of lay citizens. In recent times, research on public attitudes towards biotechnology highlighted that ethics and underlying value issues are at least equally ambivalent as the resulting attitudes. Scrutinising and understanding these European values related to science and technology is thus necessary to improve governance of science and technology.

### **SPECIFIC PROJECT OBJECTIVES**

The VALUE ISOBAR project aimed at producing a survey study which would help to define an action plan for a value-based and value-informed new and flexible governance of the science-society relation in Europe. The study was envisaged so as to also provide concrete guidance to governance and to identify new research needs in order to move from a generic understanding of value-based and value-informed governance to more specific mechanisms of governance that improve current practice. In particular, the following specific objectives were identified:

- Attempting to review and critically discuss social values and the underlying conceptual differences across various disciplines in humanities, social sciences and natural sciences, in order to design a theoretical framework for further study;
- Identifying potential drivers of science and technology attitudes by investigating the relation between preferences, values and norms;
- Analysing and re-shaping methodologies for the empirical mapping of social values; identifying within these values dominant value sets relevant for science and technology;
- Reviewing existing participatory approaches of science and society dialogue and developing innovative ones that are attentive to social values;
- Reviewing and putting into discussion legal, regulatory and other mechanisms, including soft-law, in regard to their potential to stimulate value-based and value-informed flexible governance and to respond to existing value isobars in European publics; and
- Testing through two case studies (dual-use biotechnology and security technology) the basic emergent governance framework.

### **SaS/SiS Programme objectives/Activity Lines**

The study planned by the project Consortium aimed at suggesting to policy makers an effective action plan towards a more dynamic and values-aware governance of the science and society relationship (inform sound policies), which encompasses societal concerns and involves civil society and its organisations in research policy (responding to the 5.1 Action line of the Call FP7-SiS-2008-1 - *A more dynamic governance of the science and society relationship*). Furthermore, the case studies identified within the project objectives are in line with those proposed by the Commission in thematic area 5.1.1.2.1, namely information and communication technologies, dual use, and technologies in the field of security.

The project's objectives do not tackle directly strategic needs highlighted among the **Innovation Union** commitments.



Furthermore, it does not refer to any of the **ERA** priorities; anyway, the goal of re-shaping regulatory frameworks and understanding the kernel of values underpinning citizens' attitude towards science and technology are indirectly relevant to enhance a knowledge based society, to promote the harmonization of European compatible policies related to governance of emerging technologies and to highlight new paths to be taken in research.

### **SaS Action Plan**

The project's objectives are relevant to action 29 (Help set up information and documentation observatory for ethical issues) of SaS Action Plan. Indirectly, aiming at fostering a public dialogue in Europe on ethics and science, and highlighting the need of raising researchers' awareness of ethical issues, they also partially concern action 30 and 31.

## **PROJECT RESULTS AND OUTCOMES**

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### **Main achievements according to project objectives**

The Consortium worked on analyses of existing literature and data, and eventually formulated on these bases a blueprint for value-informed governance of science and society relation, which was presented in the Final Conference in Brussels. Main specific findings of the preliminary research actions were:

- A **theoretical attempt of conceptual clarification of the terminology**, including the **concept of value**, defined as a reference point for evaluating something as positive or negative, and as being rationally and emotionally binding and giving long-term orientation and motivation for action;
- A study investigating previous and current approaches to value analysis and mapping of values, and identifying successful methodologies for obtaining and analysing data;
- **Design and arrangement of role-playing sessions of participatory actions**, focused on two controversies in science ethics, such as biometrics and dual use in relation to biotechnology;
- A **thorough analysis of the relation between values, legal principles and rights**, focused on two particular case studies put into comparison, biometrics and human cloning; in particular the role of soft law and self-regulation has been addressed both from the point of view of their potential and that of their actual implementation within European governance of S&T;
- An **analysis of the value dilemmas** involved in two technological areas, namely biometrics and dual use.

Furthermore, the project's outcomes included active proposals addressing future research, governance and survey of values in Europe:

- The **blueprints for a value-informed flexible governance of science and society relation**, that should be more holistic, circular and process-oriented: three inputs were highlighted by the project, namely (1) providing empirical information on values in relation to Science and Technology, (2) designing and testing innovative participatory exercises, and (3) strengthening soft law as value-oriented instruments of governance;
- The **proposal** of the edition of a European Science and Technology **Value Atlas** at regular intervals, based on a prototype produced by the Consortium: its function would be to identify issues of current concern and analyse them from the point of view of interested values. Contextually, the project formulated recommendations towards the **implementation of participatory actions** such as science parliaments and other form of self-regulation, and advocated **the need for fora** where scientists and academics participating in different projects can exchange views and practices;
- The identification of a number of research needs to be addressed in the future.

Progress of each WP including deliverables and associated milestones were submitted with minor delays (dates in the table at the end of this document refer to delivery of final versions of most documents). Management of the project envisaged a number of meetings of the Consortium that made it able to keep all the partners up to date about the development of the work packages and proceed in mutual coordination in case of multi-disciplinary tasks.

### **Main achievements according to Programme objectives**

Along with contributing to produce research in the field of ethics of new technologies, the project identified two case studies, such as biometrics in security technology and dual use, which are included in topics needing for further analysis from the point of view of Science and Society relation in SiS-2008-1.1.2.1 - Ethics and new and emerging fields of science and technology. One achievement of the project was the cooperation between actors from different disciplines in working on science and culture relation.

### **Main achievements according to SiS Dimensions**

The VALUE ISOBAR project participated in the SiS "Science and Ethics" dimension: it contributed to better explore the relationship between ethics, law and science for newly emerging science and technology areas, focusing on specific case studies but seeking to formulate blueprints applicable to a wider range of issues. The issues included in the focus

of this research are therefore specific and the overall principle is that of investigating overarching values in society to better analyse the ethical implications of science and technology.

### **DISSEMINATION AND ENGAGEMENT ACTIVITIES AIMED AT TRANSFERRING THE PROJECT RESULTS TO WIDER COMMUNITIES**

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The Consortium envisaged a dissemination strategy for work Package 7 in the Description of Work and implemented the plan accordingly. The project website was an important tool for dissemination: it included a completely public part, with information on the project and the Consortium, as well as a semi-public part used for internal communication. The project produced three communication papers and distributed them to selected end-users, some of whom attended the Final conference of the project in Brussels. A manual (Manual on Improved Governance: Prototype of the proposed "European Science and Technology Value Atlas") was published online. Other dissemination activities were implemented in the following ways:

- Conferences addressing the European scientific community: "EurSafe (2010)", "Fifth Pan-European Conference on EU Politics (2010)" in Porto and another conference in Florence; a presentation to the civil society in Germany;
- A **video published online and a TV clip** addressed to the Norwegian audience;
- **Publications:** along with articles published in the non-academic journals, in United Kingdom and Norway, a number of academic publications have been released (see table below).

### **PROJECT IMPACTS**

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As the Final Report of the project stated, the impact of VALUE ISOBAR project was expected to be significant in several ways, such as **informing future research** about research topics to be further investigated; **supporting decision making in the field of governance** of science and society relation; **implementing foresights and scenario surveys** on civil society response to S&T including European values landscape as a significant factor; and **enhancing the development of the debate on biometrics and dual use** by actively considering the role of the values landscape. The Consortium included four institutions with a very high centrality: three among the top 1% and one among the top 5%. Being central in a network means that the organisation does not only participate in several projects in the FP but it also participates with other important organisations, and has a high capacity to diffuse and spread information and knowledge, which increases the potential impact of the project. Moreover, with regard to the scientific attractiveness<sup>73</sup>, three academic institutions were very well positioned in the Leiden Ranking (LSE ranking 56<sup>th</sup>, Maastricht University 156<sup>th</sup> and Bergen University 259<sup>th</sup>).

The project actual impacts were:

- **Scientific impact:** the VALUE ISOBAR project had a relevant **scientific impact**. As reported in the last table of this document, three scientific articles related to the project were published. Furthermore, one chapter in a book, two papers in conference proceedings and two working papers were distributed. This suggests that the number of publications related to the project was above the average number of scientific outputs of SiS projects (0,5 publication per project).
- **Social media impact:** no relevant social impact in terms of social media listening buzz results was recorded
- **Institutional and organisational impact:** the project appears not to have had any institutional or organisational impact
- **Policy impact:** the project's Consortium undertook a European perspective through all the research activity, referring to European data on values and societal attitudes towards science and technology. This enabled to address policy makers all over Europe, with a potential impact on the entire continent. More concretely, the Consortium constantly informed about its activity the end users panel, including European policy makers and key figures in governance of research; although no concrete policy impact was recorded, the communication reports to end users enhanced the outreach of key policy makers in Europe and in the community of researchers.

### **PATH-BREAKING ADVANCEMENTS**

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The VALUE ISOBAR project investigated the public attitudes about sensitive technologies from the perspective of values behind such attitudes. It therefore attempted to provide policy makers with a framework where to ground a

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<sup>73</sup> Potential scientific attractiveness of the participating organisations to the project is used, in our study, to evaluate the potential of the project to produce publications and other scientific outputs.



more flexible governance of S&T in relation with society. The implementation of a Value Atlas relevant to specific issues concerning science and technology, such as biometrics and dual use, was seen by the Consortium as possibly inspirational for future research on science and ethics.

### EU ADDED VALUE OF THE PROJECT

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The thorough analysis of data regarding attitudes and concerns of citizen in Europe and the formulation of sound recommendations for policy makers were the result of joint research activities of six European institutions. The coordination of these activities and the relevance of its scientific results, were presumably helped by the European dimension of the project.

### PARTICIPANTS AND RESEARCH TEAM

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#### Participants

Number of participants: 6

Number of countries involved: 6

	Type	Country	Role	Previous participations to FP
UNIVERSITY OF BERGEN		NO	Coordinator	102
OPEN SCIENCE - LEBENSWISSENSCHAFTENIM DIALOG VEREIN		AT	Participant	2
LONDON SCHOOL OF ECONOMICS AND POLITICAL SCIENCE		GB	Participant	100
UNIVERSITY OF TUBINGEN		DE	Participant	161
DINAMIA -CET, CENTRO DE ESTUDOS SOBRE A MUDANCA SOCIOECONOMICA E O TERRITORIO ASSOCIACAO		PT	Participant	1
MAASTRICHT UNIVERSITY		NL	Participant	150

#### Team Composition

Team Size: members\*

GENDER				
Female		Male		Unknown
29%		71%		0%
SENIORITY				
Average		Junior		Senior
21%		0%		79%
PhD				
No		Yes		
7%		93%		
BACKGROUND				
Applied Sciences	Health Sciences	Humanities & Social Sciences	Natural Sciences	Unknown
0%	14%	79%	7%	0%

\*The data are based on the analysis of the provided project's Description of Work.

### DELIVERABLES AND PUBLICATIONS

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DELIVERABLE NO.	DELIVERABLE NAME	DUE DATE OF DELIVERY (month)	ACTUAL SUBMISSION DATE: (month)
D1.1	Review of literature on values	12	13
D1.2	Conceptual analysis of values, norms, preferences and attitudes	18	22
D1.3	Sketch of pragmatically justified theory of values for governance	30	31
D2.1	Review of data quality from value surveys	12	14
D2.2	Comparison of methodological approaches to value studies	18	21
D2.3	An improved scheme for value surveys and analysis actual title: deliverable 2.2.b Comparison of methodological approaches to value studies – annex	30	33
D3.1	Protocol for role play of ethics council	12	14

DELIVERABLE NO.	DELIVERABLE NAME	DUE DATE OF DELIVERY (month)	ACTUAL SUBMISSION DATE: (month)
D3.2	Report on experiences with role play exercises	12	22
D3.3	Protocol for participative method exercise	18	33
D3.4	Report on participative method on values for governance	30	30
D4.1	An analytical review of the part of ethics in EU S&T law and regulations	12	21
D4.2	A critical discussion of soft law in a governance perspective	18	28
D4.3	Sketch of value based governance tools for S&T	30	30
D5.1	Introductory overview over ethical issues and values relating to 2 technologies	12	21
D5.2	Value dilemmas in 2 technologies	18	29
D5.3	Article on ethical issues in 2 technologies	30	33
D6.1	Analysis of difficulties of value based governance of S&T	12	17
D6.2	Ways of understanding social values in the European public	24	30
D6.3	Recommendations concerning research needs for implementing value based governance of S&T	30	30
D6.4	Value-informed governance of science and technology – a blueprint.	30	32
D6.5	Joint Scientific publications	30	33
D7.1	Project website	6	21
D7.2	List of targeted end users	6	21
D7.3	First communication to targeted end users	8	14
D7.4	Second communication to targeted end users	18	21
D7.5	Third communication to targeted end users	26	30
D7.6	Program of final conference	30	33
D7.7	Report from final conference	30	30
D7.8	Manual on improved governance	30	32
D7.9	Scientific publication(s)	30	43
D8.1	Minutes from first consortium meeting	6	21
D8.2	Minutes from second consortium meeting	12	21
D8.3	Minutes from third consortium meeting	18	21
D8.4	First project activity and financial report	18	21
D8.5	Minutes from fourth consortium meeting	24	33
D8.6	Minutes from fifth consortium meeting	30	33
D8.7	Second project activity and financial report	30	46
D8.8	Final reports including final plan for the use and dissemination of foreground	30	43

Publications no.	PUBLICATION	LINK (when available)
	Gaskell, G.; Allansdottir, A.; Allum, N.; Castro, P.; Esmer, Y. et al. [...] (2011) "The 2010 Eurobarometer on the life sciences". <i>Nature Biotechnology</i> , No. 29 (2).	<a href="http://bookshop.europa.eu/is-bin/INTERSHOP.enfinity/WFS/EU-Bookshop-Site/en_GB/-/EUR/ViewPublication-Start?PublicationKey=KINA24537">http://bookshop.europa.eu/is-bin/INTERSHOP.enfinity/WFS/EU-Bookshop-Site/en_GB/-/EUR/ViewPublication-Start?PublicationKey=KINA24537</a>
2.	Almaas, Vibeke & Kaiser, Matthias (2010) "Governance addressing societal values". In <i>Global food security: ethical and legal challenges</i> (C.M.Romeo Casabona, L.E.San Epifanio, A.E.Cirion). Wageningen Academic Publishers, pp. 269-274.	
3.	Tsirogianni, S., & Gaskell, G. (2011) "The role of plurality and context in social values". <i>Journal for the theory of social behaviour</i> , 41 (4), pp. 441-465.	
4.	Gaskell, G.; Stares, S.; Allansdottir, A.; Kronberger, N.; Hampel, J. et al. (2010) <i>Europeans and Biotechnology in 2010: Winds of Change? A report to the European Commission's Directorate-General for Research on the Eurobarometer 73.1 on Biotechnology; FP7 project 'Sensitive Technologies and European Public Ethics' [STEPE]</i> . London School of Economics: London	<a href="http://ec.europa.eu/public_opinion/archives/ebs/ebs_341_winds_en.pdf">http://ec.europa.eu/public_opinion/archives/ebs/ebs_341_winds_en.pdf</a>
5.	Roman Beck, Simon Meisch, Thomas Potthast (2012). "The value(s) of sustainability within a pragmatically justified theory of values: considerations in the context of climate change". <i>Climate change and sustainable development</i> . Wageningen Academic Publisher, pp. 49-54.	

Publications no.	PUBLICATION	LINK (when available)
6.	<i>Simon Meisch, Roman Beck, Thomas Potthast (2012). "Towards a value-reflexive governance of water". Climate change and sustainable development. Wageningen Academic Publisher, pp. 413-418.</i>	
7.	<i>Maria Eduarda Goncalves, Maria Ines Gameiro (2012). "Security, privacy and freedom and the EU legal and policy framework for biometrics". Computer Law &amp; Security Review, 28, pp. 320-327.</i>	
8.	<i>Cristina Pace, Robert Alexy's A Theory of Constitutional Rights critical review: key jurisprudential and political questions. Working Paper n° 2012/01.</i>	<a href="http://dinamiacet.iscte-iul.pt/wp-content/uploads/2012/01/DINAMIA_WP_2012-01.pdf">http://dinamiacet.iscte-iul.pt/wp-content/uploads/2012/01/DINAMIA_WP_2012-01.pdf</a>

## MAIN SOURCES

www.value-isobars.eu

- VALUE ISOBARS Consortium (2009). Description of Work. Annex I.
- VALUE ISOBARS Consortium (2010). Review of literature on values.
- VALUE ISOBARS Consortium (2010). Review of data quality from value surveys.
- VALUE ISOBARS Consortium (2010). Analysis of difficulties of value based governance of S&T.
- VALUE ISOBARS Consortium (2010). First communication to targeted end users.
- VALUE ISOBARS Consortium (2011). Conceptual analysis of values, norms, preferences and attitudes.
- VALUE ISOBARS Consortium (2011). Sketch of pragmatically justified theory of values for governance.
- VALUE ISOBARS Consortium (2011). Comparison of methodological approaches to value studies.
- VALUE ISOBARS Consortium (2011). Report on experiences with role play exercises.
- VALUE ISOBARS Consortium (2011). Report on participative method on values for governance.
- VALUE ISOBARS Consortium (2011). An analytical review of the part of ethics in EU S&T law and regulations
- VALUE ISOBARS Consortium (2011). A critical discussion of soft law in a governance perspective
- VALUE ISOBARS Consortium (2011). Sketch of value based governance tools for S&T.
- VALUE ISOBARS Consortium (2011). Introductory overview over ethical issues and values relating to two technologies
- VALUE ISOBARS Consortium (2011). Value dilemmas in two technologies.
- VALUE ISOBARS Consortium (2011). Ways of understanding social values in the European public.
- VALUE ISOBARS Consortium (2011). Recommendations concerning research needs for implementing value based governance of S&T.
- VALUE ISOBARS Consortium (2011). Panel of targeted end users.
- VALUE ISOBARS Consortium (2011). Second communication to targeted end users.
- VALUE ISOBARS Consortium (2011). Third communication to targeted end users.
- VALUE ISOBARS Consortium (2011). Minutes from final conference
- VALUE ISOBARS Consortium (2011). Minutes from first consortium meeting.
- VALUE ISOBARS Consortium (2011). Minutes from second consortium meeting
- VALUE ISOBARS Consortium (2011). Minutes from third consortium meeting
- VALUE ISOBARS Consortium (2011). First project activity and financial report
- VALUE ISOBARS Consortium (2012). Comparison of methodological approaches to value studies – annex.
- VALUE ISOBARS Consortium (2012). Value-informed governance of science and technology – a blueprint.
- VALUE ISOBARS Consortium (2012). Manual on improved governance.
- VALUE ISOBARS Consortium (2012). Minutes from fourth consortium meeting
- VALUE ISOBARS Consortium (2012). Minutes from fifth consortium meeting
- VALUE ISOBARS Consortium (2013). Second project activity and financial report
- VALUE ISOBARS Consortium (2013). Final reports including final plan for the use and dissemination of foreground

## Science and Ethics: FP6 Related to SaS

## **IMPROVING THE UNDERSTANDING OF THE IMPACT OF NANOPARTICLES ON HUMAN HEALTH AND THE ENVIRONMENT - "IMPART"**

**Framework Programme: FP6**  
**Action line/Part: -**  
**Activity: -**  
**Area: -**  
**Dimension: Science and Ethics**  
**Tool: Coordination Actions**  
**Project Call For Proposal: FP6-2003-NMP-TI-3-MAIN**  
**Status: Closed**  
**Total cost: € 699 913**  
**Total EU funding: € 699 913**  
**Website: - (the link [www.impart-nanotox.org](http://www.impart-nanotox.org) does not work anymore)**  
**Period: 01/02/2005 - 31/07/2008**  
**Subjects: Environmental Protection - Industrial Manufacture - Medicine and Health**  
**Project ID and Acronym: 13968 - IMPART**

### **BACKGROUND AND CONTEXT OF THE PROJECT AND STRATEGIC NEEDS**

Nanotechnology is involved in an increased number of applications with industries mass-producing nanoparticles (particles less than 100 nm in size) for use in many day-to-day products. The production of nanoparticles inevitably results in the introduction of these materials to the environment. However, despite rapid advances in nanotechnology, knowledge of the potential risks of nanoparticles to human health and the environment is limited.

There are concerns that size matters with respect to toxicity, and that those biologically inert in bulk materials tend to become harmful in ultrafine particle form. There is a need to encourage greater understanding of the short and long term implications of nanotechnology for health and the environment.

### **SPECIFIC PROJECT OBJECTIVES**

#### **Project objectives**

The objective of IMPART was to keep knowledge of the health and environmental implications of nanoparticles at the level of technological advances. IMPART was expected to foster communication links between numbers of regional, national and international initiatives in order to reduce duplication of effort, pool expertise and facilitate co-operation between networks.

The specific scientific and technological objectives of the IMPART co-ordination action were:

- **Objective 1:** To co-ordinate the efforts of regional, national and international initiatives represented in the consortium.
- **Objective 2:** To create and enhance good communication and permanent links between the partners.
- **Objective 3:** To carry out a review of the latest scientific and technological developments related to the risks of Nanoparticle exposure on human health and the environment.
- **Objective 4:** To disseminate the project's results through a specialised website and knowledge transfer workshops.
- **Objective 5:** To make recommendations to major funding bodies for the future research direction in the field.
- **Objective 6:** To produce guidelines and recommendations for the institution of future Nanoparticle standards and exposure limits.

#### **Programme objectives**

The objective of IMPART was to co-ordinate initiatives related to the risks of Nanoparticle exposure on human health and the environment. The objectives of IMPART were thus consistent with the SaS objective of strengthening synergies between local initiatives.

#### **Innovation Union Objectives**

Strengthening the knowledge base and reducing fragmentation is an objective of the Innovation Union. In that respect, IMPART's purpose was consistent with the Innovation Union objectives as it aimed to co-ordinate initiatives related to the risks of Nanoparticle exposure on human health and the environment.

### European Research Area Objectives

Optimal transnational co-operation is an objective of ERA. In that respect, IMPART's purpose was consistent with the Innovation Union objectives as it aimed to co-ordinate initiatives related to the risks of Nanoparticle exposure on human health and the environment.

### SaS Action Plan

The project provided documents including recommendations on the health and environmental implications of nanoparticles at the level of technological advances, addressed to policy makers, research policy makers and other stakeholders. It was indeed consistent with Action 29 of the SaS Action plan, as it helped set up information and documentation on ethical issues. Also IMPART can also be considered to be consistent with Action 31, as it raised researchers' awareness of ethical issues.

With regard to objective 4 concerning knowledge transfer, it can also be considered that the project aimed to contribute to Action 33 relating to the development of international dialogue on ethical issues through the use of knowledge transfer workshops.

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### PROJECT RESULTS AND OUTCOMES

#### Main achievements according to Project outcomes

On the basis of a review of the outcomes of IMPART, the project can be considered as a success:

- Concerning **objective 1** and **objective 2**, all objectives were reached: initiatives' activities were effectively coordinated, data were collected according to quality assurance procedures and the safety and risk database was installed and regularly updated. The "input report" was decided to be made public due to the high degree of actuality and quality of the content.
- Concerning **objective 3**, four internal assessments of existing and missing data were performed: Existing legislation applicable to Nanomaterials, Toxicology, Risks and Best Practices. However, due to controversial discussions with experts about the state-of-the-art, this internal report was decided not to be published but to remain available on request.
- Concerning **objective 4**, see the dissemination section below.
- Concerning **objective 5** and **objective 6**, three public documents including recommendations were elaborated depending on the audience targeted: one for legislation policy makers, one for research policy makers and finally one for the industry, public and other stakeholders.

According to the project Final Activity Report, all objectives were achieved.

#### Main achievements according to Programme objectives

As stated in the project objectives section and confirmed by a review of project deliverables, the IMPART project results were in line with the SaS objective of strengthening synergies between local initiatives.

#### Main achievements according to SaS Dimensions

The IMPART project was in line with the Science and Ethics SaS dimension as it contributed to exploring the impacts of a new technology on human health and the environment, opening the way to an in-depth analysis of security and ethical issues.

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### DISSEMINATION AND ENGAGEMENT ACTIVITIES AIMED AT TRANSFERRING THE PROJECT RESULTS TO WIDER COMMUNITIES

Main dissemination vectors of IMPART were:

- The database on Nano Safety & Risk publications, including all relevant publications on Nano Safety & Risk (NS&R) issues, was accessible to the public. All main stakeholders across Europe were informed about the future use of the database and collaborated with the project.
- The report "Working Report on the Status Quo of Nanomaterials Impact on Health and Environment" and the recommendations and guidelines for legislation policy makers, research policy makers and Industry, public and other stakeholders were made available to the public through the database.

The final IMPART International event (September 30, 2008, Brussels) addressed 65 registered participants. The targeted audience for the combined meetings consisted of legislation policy makers, research policy makers, opinion leaders from industry and industry associations, researchers, public authorities and NGOs. All given presentations of the conference were made available on the IMPART website.

According to the project's Final Activity Report, all objectives related to the dissemination of knowledge were reached. However, due to the lack of the Description of Work, it is not possible to assess whether all planned dissemination activities were implemented.

## PROJECT IMPACTS

### Potential impact of the project

IMPART was expected to improve the understanding of the potential impact of nanoparticles on human health and the environment.

- **Betweenness centrality:** Nine participants were included in the top 1% in terms of centrality of the "Strengthening the ERA" network in FP6.
- **Scientific attractiveness:** The best ranked university participating in the project was the UNIVERSITY OF MANCHESTER (177<sup>th</sup>).
- **Business attractiveness:** No highly ranked R&D investors participated in the project.

**Actual impact** as resulting from the project documents and/or commented during the interviews with project coordinators. Impacts can be clustered into four types:

- **Scientific impact:** the publication "Nanotechnology and the environment: A European perspective" was cited 129 times.
- **Social Media impact:** No significant impact on social media.
- **Institutional and organisational impact:** No impact on the institutions nor on the organisation was reported.
- **Policy impact:** the IMPART conference, held in Brussels in September 2008, confirmed the appreciation of the IMPART project and the recommendations developed, which were expected to have a significant impact on future policy-making related to nanotechnologies.

## EU ADDED VALUE OF THE PROJECT

Funding the IMPART project at EU-level made sense since the aim of the project was to co-ordinate European initiatives related to the risks of Nanoparticle exposure on human health and the environment.

The Team working at a European scale enabled the sharing of available knowledge to create a long-lasting network between European nanoparticle research teams, to cover more research topics during the project and to avoid duplication of efforts, and finally to benefit from a wider perspective for the production of guidelines and recommendations as well as ensuring a more efficient dissemination of results through participants' respective networks.

## PARTICIPANTS AND RESEARCH TEAM

### Participants

Number of participants: 25

Number of countries involved: 16

	Type	Country	Role	Previous participations in FP
TEMAS AG TECHNOLOGY AND MANAGEMENT SERVICES	OTH	CH	Coordinator	2
HELSINKI UNIVERSITY OF TECHNOLOGY	HES	FI	Participant	2
NOFER INSTITUTE OF OCCUPATIONAL MEDECINE	REC	PL	Participant	1
UNIVERSITY OF CRETE	HES	GR	Participant	1
LATVIJAS TOKSIKOLOGU BIEDRIBA	OTH	LV	Participant	1
STICHTING BIOMADE TECHNOLOGY	REC	NL	Participant	4
DUBLIN INSTITUTE OF TECHNOLOGY	HES	IE	Participant	1
NATIONAL INSTITUTE OF RESEARCH AND DEVELOPMENT FOR TECHNICAL PHYSICS	REC	RO	Participant	3
KATHOLIEKE UNIVERSITEIT LEUVEN	HES	BE	Participant	1
CMP CIENTIFICA S.L.	OTH	ES	Participant	1
VDI TECHNOLOGIEZENTRUM	OTH	DE	Participant	1

Stock-taking and meta-analysis of Science in Society projects throughout FP6 and FP7  
Final Case Studies

	Type	Country	Role	Previous participations in FP
GMBH				
KAUNO TECHNOLOGIJOS UNIVERSITETAS	HES	LT	Participant	1
UNIVERSITY OF LEICESTER	HES	GB	Participant	1
INSTITUTE OF PHYSICAL CHEMISTRY I.G.MURGULESCU OF THE ROMANIAN ACADEMY	REC	RO	Participant	1
NANO FUNCTIONAL MATERIALS CONSORTIUM	OTH	IL	Participant	1
TECHNOLOGY CODES LTD	OTH	IE	Participant	3
CHALEX RESEARCH LTD	OTH	GB	Participant	7
BULGARIAN ACADEMY OF SCIENCES	HES	BG	Participant	5
THE UNIVERSITY OF SURREY	HES	GB	Participant	34
UNIVERSITATEA DIN CRAIOVA	HES	RO	Participant	4
JOZEF STEFAN INSTITUTE.	REC	SI	Participant	46
THE VICTORIA UNIVERSITY OF MANCHESTER	HES	GB	Participant	110
FORSCHUNGSZENTRUM KARLSRUHE GMBH	REC	DE	Participant	73
TECHNISCHE UNIVERSITÄT MÜNCHEN	HES	DE	Participant	75
EIDGENÖSSISCHE MATERIALPRÜFUNGS- UND FORSCHUNGSANSTALT	REC	CH	Participant	27

**Team Composition**

No data was available on team composition.

**DELIVERABLES AND PUBLICATIONS**

Deliverables

DELIVERABLE NO.	DELIVERABLE NAME	DUE DATE OF DELIVERY (month)	ACTUAL SUBMISSION DATE: (month)
D1.0	Co-ordinated project, approved reports to EC (mid-term report after 7 months)	0.32	1.00
D1.1	Update communication with EC and from EC to the partners, reporting to EC	0.46	0.46
D1.2	Financial reporting to EC and distribution of funds to the partners	0.46	0.46
D1.3	Relaunch meeting, minutes	1.18	1.09
D1.4	Continuous quality control and reporting to the partners.	0.61	0.61
D2.0	Minutes, activity and financial reporting	0.62	0.75
D2.1	Reworked input report for WP	2.05	2.11
D2.2	Project list of all ongoing projects	1.32	1.45
D2.3	Validation letters of each WP leader	0.87	1.45
D2.4	Consolidated draft of input report for WP	1.76	2.00
D2.5	Database operational	1.32	2.12
D2.6	Final input-report about the state of the art	0.88	0.87
D3.0	Minutes, activity and financial reporting	0.92	1.06
D3.1	Internal report and input for database	2.64	2.86
D3.2	Internal report "Toxicology" and input for database	2.99	4.07
D3.3	Internal report on "Risks" and input for database	3.22	3.33
D3.4	Internal report "Best Practices" and input for database	2.57	2.74
D3.5	Permanently updated database	0.68	0.65
D4.0	Minutes, activity and financial reporting	0.60	0.66
D4.1	structured templates for the reports	0.88	0.86
D4.2	Recommendations for legislation policy makers	2.01	3.32
D4.3	Recommendations for research policy makers	2.15	2.21
D4.4	Guidance booklet	2.48	3.52
D4.5	Permanently updated database	0.45	0.46



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<i>DELIVERABLE NO.</i>	<i>DELIVERABLE NAME</i>	<i>DUE DATE OF DELIVERY (month)</i>	<i>ACTUAL SUBMISSION DATE: (month)</i>
D5.0	<i>Minutes, activity and financial reporting</i>	<i>0.71</i>	<i>1.80</i>
D5.1	<i>Co-ordinated actions</i>	<i>0.92</i>	<i>1.27</i>
D5.2	<i>Final Home Page and IMPART promotional leaflet</i>	<i>0.51</i>	<i>1.21</i>
D5.3	<i>Conference with "opinion leaders" proceedings</i>	<i>1.87</i>	<i>1.71</i>
D5.4	<i>Main IMPART conference proceedings</i>	<i>1.89</i>	<i>2.63</i>
D5.5	<i>Country reports with the results of the national workshops</i>	<i>3.95</i>	<i>4.75</i>

**Related publications**

<i>PUBLICATION TITLE</i>	<i>Number of citations</i>
<i>Nanotechnology and the environment: A European perspective</i>	<i>129</i>

**MAIN SOURCES**

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IMPART Final Report

## **DEVELOPMENT OF A COHERENT APPROACH TO HUMAN BIOMONITORING IN EUROPE - "ESBIO"**

**Framework Programme: FP6**  
**Action line/Part: -**  
**Activity: -**  
**Area: -**  
**Dimension: Science and Ethics**  
**Tool: Coordination Actions**  
**Project Call For Proposal: FP6-2004-SSP-4**  
**Status: Closed**  
**Total cost: € 1 055 000**  
**Total EU funding: € 1 055 000**  
**Website: - (the link does not work anymore)**  
**Period: 01/10/2005 - 30/09/2007**  
**Subjects: -**  
**Project ID and Acronym: 22580 - ESBIO**

### **BACKGROUND AND CONTEXT OF THE PROJECT AND STRATEGIC NEEDS**

The European Environment and Health Strategy, adopted by the European Commission in 2003, presented a new vision on how to address environment and health in an integrated way and put health at the centre of environmental policy. Based upon this strategy, the Commission adopted in 2004 a Communication on the Environment and Health Action Plan 2004–2010. In Action 3 of this Action Plan, the European Commission announced the development of a coherent approach to Human Biomonitoring (HBM) in Europe, in close cooperation with the Member States.

For the implementation of Action 3, the Commission set up a Technical Working Group (TWG) on HBM, consisting of HBM experts from several European countries. This TWG was expanded to include more Member States and was then called the Implementation Group (IG). Given the complexity of the issues at stake, a step-by-step approach was set up for the realisation of action 3: the first step (2004-2006) consisted in the technical preparation of the European pilot project. For this reason, the EU Commission launched the ESBIO project.

### **SPECIFIC PROJECT OBJECTIVES**

#### **Project objectives:**

The objective of the ESBIO project was to prepare the second development step of a coherent approach to Human Biomonitoring (HBM) in Europe: to test out the developed coordinated approaches in an EU HBM pilot project.

The ESBIO project was outlined as a coordination action which aimed to enable networking and co-ordination of institutes playing an active role in European biomonitoring research, with a focus on the integration of environmental monitoring and health data and transposition of research results into policy programmes.

The overall objectives of the ESBIO project were the following:

- **Objective 1:** To develop a coordinated approach for biomonitoring based on existing expertise and experiences available in Member States surveillance programmes and results from research.
- **Objective 2:** To investigate how biomonitoring results can be integrated most efficiently with environmental monitoring and registered health data.
- **Objective 3:** To develop strategies to communicate biomonitoring results to stakeholders (populations affected, regulators, politicians), including the establishment of websites publicly available listing links to national and international activities, resulting in full transparency for all stakeholders.
- **Objective 4:** To elaborate scenarios for the use of biomonitoring results for policy-making.

#### **Programme objectives**

The objective of ESBIO was to coordinate European initiatives in the field of Human Biomonitoring (HBM). The objectives of ESBIO were thus consistent with the SaS objective of supporting coordination initiatives towards policy-related research in relation to science, technology developments and their applications.

#### **Innovation Union Objectives**

Strengthening the knowledge base and reducing fragmentation is an objective of the Innovation Union. In that respect, ESBIO's purpose was consistent with the Innovation Union objectives as it aimed to coordinate European initiatives in the field of Human Biomonitoring (HBM).

#### **European Research Area Objectives**

Optimal transnational cooperation is an objective of ERA. In that respect, ES BIO's purpose was consistent with the Innovation Union objectives as it aimed to coordinate European initiatives in the field of Human Biomonitoring (HBM).

### **SaS Action Plan**

The project was in line with the SaS Action Plan and in particular with:

- Action 29, as it provided information and documentation for ethical issues through the creation of an electronic HBM inventory that enabled the dissemination of know-how and coordinated approaches;
- Action 30, as it established public dialogue in Europe on ethics and science, through the organisation of a conference on HBM in Europe which served as a basis for the future EU network on HBM;
- Action 31, as it raised researchers' awareness of ethical issues, through the organisation of the above mentioned conference, the development of a communication concept and related guidelines to involve all stakeholders including the scientific world.

## **PROJECT RESULTS AND OUTCOMES**

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### **Main achievements according to Project outcomes**

The ES BIO project successfully contributed to enhance the situation concerning HBM in Europe. The project achieved its aims and objectives and enabled the formation of an effective network on HBM at European level:

- Concerning **objective 1**, a conference "State of the art" on HBM in Europe was organised at the beginning of the project and contributed to improving communication between all stakeholders, to increasing know-how sharing within the scientific community, and served as a basis for the future EU network on HBM. The creation of an electronic HBM inventory enabled the dissemination of know-how and coordinated approaches. Finally, measures were taken to ensure confidentiality and security of data, as well as ethical advice such as the maximum volume of blood samples which could be taken.
- Concerning **objective 2**, beside the definition of objectives for an EU HBM approach and the EU pilot project, a proposal for pollutants and biomarkers, a draft questionnaire for the pilot study, a proposal for harmonised way of collecting and analysing selected pollutants and for data management, models for inter-laboratory comparison and a proposal for organisation of laboratory work, as well as a proposal for population sampling, recruitment and biological sampling were produced and made available for use. ES BIO also provided an extensive scientific basis for the utility and sensitivity of biomarkers, which linked biomarkers to health consequences. Moreover the cost-value ratio of Different study approaches were assessed to identify the most effective and economic way to perform an HBM pilot project.
- Concerning **objective 3**, a communication concept was set up to guarantee an effective communication among all actors involved. The project team especially worked on the improvement of communication and involvement of Member State representatives and the scientific world.
- Concerning **objective 4**, ES BIO project prepared a concept to establish biomonitoring as a policy making tool and provided guidelines for integrating scenarios and implementation strategies for biomonitoring.

On the basis of the Final Activity Report, it seems that all planned objectives were achieved.

### **Main achievements according to Programme objectives**

As stated in the project objectives' section and confirmed by a review of project deliverables, the ES BIO project results were in line with the SaS objective of supporting coordination initiatives towards policy-related research in relation to science, technology developments and their applications.

### **Main achievements according to SaS Dimensions**

The ES BIO project was in line with the Science and Ethics SaS dimension as it contributed to exploring ethics issues in Human Biomonitoring, and consequently to focusing on the ethical implications of innovation in technology. One of the project's work package focused on the analysis of ethical issues practices in the different countries and projects, through the review of current legalisation and harmonised procedures. After desk research and interviews, a workshop was held in Copenhagen in March 2007. In this context, more than 50 attendants from industry, governments and science from Europe and the USA were invited to exchange experiences and comment on guidelines for dissemination and communication of results within participants of human biomonitoring. Indeed, it can be assessed that the project also fostered the debate on ethics between civil society and researchers.

## **DISSEMINATION AND ENGAGEMENT ACTIVITIES AIMED AT TRANSFERRING THE PROJECT RESULTS TO WIDER COMMUNITIES**

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A major task of ES BIO was the continuous communication with MS, involved stakeholders and the scientific world. During the project period, several workshops and one conference were organised. The conference led to the publication of a special issue of the International Journal of Hygiene and Environmental Health on Human biomonitoring in Europe. A second special issue on ethics and communication was also published in the online based Environmental Health after the end of the project running time.

A project website provided all prepared deliverables and information on background. New developments and meetings, a project brochure and two information posters were also prepared.

However, it is not possible to assess whether all planned dissemination activities were implemented due to the lack of the Description of Work.

## PROJECT IMPACTS

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**Potential impact** of the project

- **Institutional and organisational impact:** The availability of harmonised standards were expected to facilitate the organisation and realisation of biomonitoring laboratory work. The realisation of numerous synergies related to planning, organisation, realisation and evaluation of biomonitoring activities were expected to lead to decreased costs for biomonitoring.
- **Policy impact:** Coordinating European biomonitoring approaches was expected to result in broader and more representative data, allowing the acceleration of the evaluation and utilisation of scientific results as a basis for policy making. As a consequence, policy development would rely on more significant scientific information and better policy making tools.

Potential impacts can be further assessed through the following indicators:

- **Betweenness centrality:** Four participants out of twenty-two were included in the top 1% most central institutions having participated in FP6.
- **Scientific attractiveness:** Only two institutions out of the twenty-two project participants were ranked in the Leiden University ranking, at the 182th and 136<sup>th</sup> position.
- **Business attractiveness:** No highly ranked R&D investors participated in the project.

### Actual impact

Impacts can be clustered into four types:

- **Scientific impact:** Six scientific publications (see details in the deliverables and publications section below) were cited 67 times.
- **Social Media impact:** No reference to the ESBIO project could be found in the social media, suggesting a non-existent impact of the project through this channel.
- **Institutional and organisational impact:** Harmonised approaches developed by the ESBIO project increased cost-efficiency of the EU HBM pilot project. Synergies should bring financial savings and ensure that the information generated has full significance under a European scope. A fully coordinated approach was developed: obtained biomonitoring data would be comparable and harmonized, and the evaluation of results would benefit to the efficient use of resources.
- **Policy impact:** The communication concept developed by the ESBIO project should ensure awareness raising, transparency and appropriate communication of results during the next steps of the process. ESBIO results highlighted possibilities on how policy makers could benefit from the outcomes of biomonitoring projects.

## EU ADDED VALUE OF THE PROJECT

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Funding the ESBIO project at EU-level made sense since the aim of the project was to conduct research on Human Biomonitoring at a European scale.

Team working at a European scale enabled to share available knowledge, to create a long-lasting network between European Human Biomonitoring research teams, to cover more research topics during the project and to avoid duplication of efforts, and finally to benefit from a wider perspective for the production of guidelines and recommendations as well as ensuring a more efficient dissemination of results through participants' respective networks.

## PARTICIPANTS AND RESEARCH TEAM

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### Participants

Number of participants: 22

Number of countries involved: 19

	Type	Country	Role	Previous participations in FP
BIPRO GMBH	OTH	DE	Coordinator	1

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	Type	Country	Role	Previous participations in FP
FINNISH INSTITUTE OF OCCUPATIONAL HEALTH	OTH	FI	Participant	1
UMWELTBUNDESAMT GMBH (FEDERAL ENVIRONMENT AGENCY)	OTH	AT	Participant	1
REGIONAL AUTHORITY OF PUBLIC HEALTH BANSKÁ BYSTRICA	OTH	SK	Participant	1
INSTITUTE OF ENVIRONMENTAL MEDICINE, KAROLINSKA INSTITUTET	HES	SE	Participant	1
NATIONAL HELENIC RESEARCH FOUNDATION	REC	GR	Participant	1
AGENZIA REGIONALE PER LA PROTEZIONE DELL' AMBIENTE DELLA LOMBARDIA	HES	IT	Participant	1
INSTITUTE FOR MEDICAL RESEARCH AND OCCUPATIONAL HEALTH	REC	HR	Participant	1
SHELL INTERNATIONAL HEALTH SERVICES	IND	NL	Participant	1
INITIATIV LIEWENSUFANK ASSOCIATION SANS BUT LUCRATIF IBFAN-LUXEMBOURG	N/A	LU	Participant	1
STATE GENERAL LABORATORY, MINISTRY OF HEALTH	OTH	CY	Participant	1
ENVIRON NETHERLANDS B.V.	IND	NL	Participant	1
INSTITUT DE VEILLE SANITAIRE / NATIONAL INSTITUTE OF PUBLIC HEALTH SURVEILLANCE	OTH	FR	Participant	1
INSTITUTE OF PREVENTIVE MEDICINE - FACULTY OF MEDICINE OF LISBON	HES	PT	Participant	1
FEDERAL ENVIRONMENTAL AGENCY (UMWELTBUNDESAMT)	OTH	DE	Participant	1
VLAAMSE INSTELLING VOOR TECHNOLOGISCH ONDERZOEK NV	REC	BE	Participant	1
NATIONAL HEALTH DEVELOPMENT INSTITUTE	REC	EE	Participant	2
UNIVERSITY OF COPENHAGEN	HES	DK	Participant	55
STATNI ZDRAVOTNI USTAV	REC	CZ	Participant	10
HEALTH PROTECTION AGENCY	REC	GB	Participant	21
NOFER INSTITUTE OF OCCUPATIONAL MEDICINE	REC	PL	Participant	9
KATHOLIEKE UNIVERSITEIT LEUVEN	HES	BE	Participant	164

#### Team Composition

No data was available on team composition.

#### DELIVERABLES AND PUBLICATIONS

Deliverables

DELIVERABLE NO.	DELIVERABLE NAME	DUE DATE OF DELIVERY (month)	ACTUAL SUBMISSION DATE: (month)
1	Concept for communication to stakeholders accompanying a HBM pilot project	-	-
2	Socio economic optimization and concept for coordination for a harmonised approach to HBM in Europe	-	-
3	Ethical issues related to present and future biomonitoring programs in EU countries by describing rules and practices in a number of countries and by organizing a workshop from which proceedings will result.	-	-

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DELIVERABLE NO.	DELIVERABLE NAME	DUE DATE OF DELIVERY (month)	ACTUAL SUBMISSION DATE: (month)
4	<i>Updated European inventory of biomonitoring and concept for a platform for exchange of expertise and experience</i>	-	-
5	<i>Questionnaire to be used in a EU Human Biomonitoring Pilot Study</i>	-	-
6	<i>Guideline for data collection (sampling, chemical analysis and data management) in the framework of a EU Human Biomonitoring Pilot Study</i>	-	-
7	<i>Guideline for laboratory selection (invitation to tender and evaluation of proposals) in the framework of a EU Human Biomonitoring Pilot Study</i>	-	-
8	<i>Proposal for pollutants/biomarkers in regard to a EU Human Biomonitoring Project</i>	-	-
9	<i>Guideline on the possibilities to link HBM with environment and health data</i>	-	-
10	<i>Concept to establish biomonitoring as a policy making tool</i>	-	-
11	<i>Guidelines for integration scenarios and implementation strategies for biomonitoring results to be tested in a pilot study</i>	-	-
12	<i>Report on the utility and sensitivity of biomarker</i>	-	-

#### Related publications

PUBLICATION TITLE	Number of citations
<i>Conceptual framework for a Danish human biomonitoring program</i>	8
<i>Ethical issues related to biomonitoring studies on children</i>	9
<i>Human Biomonitoring and the Inspire Directive: Spatial Data as Link for Environment and Health Research</i>	8
<i>Human biomonitoring data interpretation and ethics; obstacles or surmountable challenges?</i>	12
<i>Human biomonitoring programmes and activities in the European Union</i>	14
<i>Translating biomonitoring data into risk management and policy implementation options for a European Network on Human Biomonitoring</i>	16

#### MAIN SOURCES

ESBIO Final Report

CORDIS Database

*The Description of Work was not available*

## Science and Ethics: FP7 Related to SiS

## **NANOMEDICINE ETHICAL, REGULATORY, SOCIAL AND ECONOMIC ENVIRONMENT - "NANOMED"**

**Framework Programme: FP7**

**Action line/Part: -**

**Activity: -**

**Area: -**

**Dimension: Science and Ethics**

**Tool: Coordination and support action**

**Project Call For Proposal: FP7-NMP-2007-CSA-1**

**Status: Closed**

**Total cost: € 784 582**

**Total EU funding: € 687 135**

**Website: - (the link - [www.nanomedroundtable.org](http://www.nanomedroundtable.org) - does not work anymore)**

**Period: 01/01/2009 - 30/06/2010**

**Subjects: Medicine and Health - Nanotechnology and Nanosciences - Research ethics**

**Project ID and Acronym: 218732 - NANOMED ROUND TABLE**

### **BACKGROUND AND CONTEXT OF THE PROJECT AND STRATEGIC NEEDS**

Nanomedicine is the application of nanotechnology in medicine and healthcare at the molecular level. To put this in context, the molecules in our bodies and the structures inside our cells operate at the scale of about 100 nanometres or less - a nanometre being one-billionth of a metre.

Although very promising, nanomedicine may add new dimensions to many ethical, societal and economic issues. For the promises to be realised and to achieve the maximum benefit of nanomedical innovations for everyone, the way has to be paved for a safe, integrated and responsible approach to nanomedicine. This will also be a necessary condition for the sustainable competitiveness of nanomedical research and development in Europe, and of its healthcare industry. It is therefore of primary importance to understand the possible impacts and consequences of nanomedicine in advance.

### **SPECIFIC PROJECT OBJECTIVES**

#### **Project objectives**

The main purpose of NANOMED ROUND TABLE was to provide European stakeholders with a set of recommendations to support decision-making regarding nanomedical innovations. These recommendations were expected to be based on a thorough analysis of existing documents, multi-stakeholder debate, and construction of scenarios on the possible consequences and impacts of nanomedicine.

To achieve this overarching goal, five main objectives were defined:

- Objective 1: To prepare a detailed, current state-of-the-art report on the expectations of patients and issues for them from likely developments in the nanomedical field taking into account ethical, regulatory, social and economic issues with conclusions and recommendations.
- Objective 2: To prepare a detailed, current state-of-the-art report on the ethical implications and possible societal impacts of likely developments in the nanomedical field taking into account patients' needs and regulatory and economic issues with conclusions and recommendations.
- Objective 3: To prepare a detailed, current and prospective report on the economic impact of nanomedicine taking into account technology offer, health policies in particular related to cost management, position of health insurers, strategies of industrial companies, current regulations and expectations of clinicians and patients.
- Objective 4: To prepare a detailed, current state-of-the-art report on the regulatory implications of likely developments in the nanomedical field taking into account patients' needs and ethical, social and economic issues.
- Objective 5: To prepare a detailed, current state-of-the-art report on the public communication implications of likely developments in the nanomedical field taking into account patients' needs and ethical, regulatory, social and economic issues, and to advise on a communication plan to achieve maximum impact for the Round Table and its outcomes and to carry out the communication activities.

#### **Programme objectives**

As it was aimed to produce a set of recommendations to support decision making regarding nanomedical innovations, and therefore to enable a better understanding of the place of science and technology in society, the objectives of NANOMED ROUND TABLE were consistent with the SiS objective of establishing scholars' networks to structure research and debates capable of revealing the real participation of science in building a European society and identity.



### **Innovation Union Objectives**

Strengthening the knowledge base and reducing fragmentation is an objective of the Innovation Union. In that respect, the purpose of NANOMED ROUND TABLE was consistent with the Innovation Union goals as it was aimed to produce a set of recommendations to support decision making regarding nanomedical innovations.

### **European Research Area Objectives**

Optimal transnational co-operation is an objective of ERA. In that respect, NANOMED ROUND TABLE's purpose is consistent with ERA goals as it was aimed to produce a set of recommendations based on multi-stakeholder debate to support decision making regarding nanomedical innovations.

### **SaS Action Plan**

Through the development of reports and recommendations on specific issues related to nanomedicine and mentioned in the paragraph below, the project helped setting up information and documentation observatory for ethical issues and was indeed in line with Action 29 of the SaS Action Plan.

## **PROJECT RESULTS AND OUTCOMES**

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### **Project outcomes**

Based on the available documentation, all the project objectives seem to have been completed:

- Concerning objective 1, a report on patient views and understanding of nanomedicine was produced. A set of recommendations was also produced.
- Concerning objective 2, a report on ethical and societal aspects of nanomedicine was produced. A set of recommendations was also produced.
- Concerning objective 3, a report on economic impact and understanding of nanomedicine was produced. A set of recommendations was also produced.
- Concerning objective 4, a report on establishing a science-based societal learning mechanism and understanding of nanomedicine was produced. A set of recommendations was also produced.
- Concerning objective 5, a report on communication and understanding of nanomedicine was produced. A set of recommendations was also produced. Finally, a communication plan was produced in order to achieve maximum impact for NANOMED ROUND TABLE's activities.

### **Programme objectives**

As stated in the project objectives section and confirmed by project deliverables, the NANOMED ROUND TABLE project results were in line with the SiS objective of establishing scholars' networks to structure research and debates capable of revealing the real participation of science in building a European society and identity.

### **Main achievements according to SiS Dimensions**

The NANOMED ROUND TABLE project results were in line with the Science and Ethics SiS dimension as they contributed to better explore the relationship between ethics, law and science for newly emerging science and technology areas.

Moreover, through the production of several reports related for example to the ethical and societal aspects of nanomedicine, the project managed to focus on the ethical implications of innovation in technology.

Conferences and presentations were also planned and were supposed to foster debates on ethics. However, as specified below, there is no evidence that they happened.

## **DISSEMINATION AND ENGAGEMENT ACTIVITIES AIMED AT TRANSFERRING THE PROJECT RESULTS TO WIDER COMMUNITIES**

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Dissemination was explicitly identified in the objectives of the NANOMED ROUND TABLE project and was managed through a dedicated work package:

- A project website ([www.nanomedroundtable.org](http://www.nanomedroundtable.org)) was established for the project. The final report and other public documentation were made available on the website. Video contents were also produced and broadcast on a dedicated YouTube channel;
- Conference presentations, Press releases and articles in specialist and popular journals, magazines and newspapers were expected to be disseminated. Such activities could however not be checked as the final report was not made available.

## PROJECT IMPACTS

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The NANOMED ROUND TABLE was expected to have an impact on its participants and their constituencies, and then by effective dissemination more broadly among policy makers and the public at large. In particular it was intended to have an impact by providing guidance for the development of policy in this field at both the EU and Member State levels and globally beyond, and of research during the European Commission's current Seventh and possibly later Framework Programmes.

Specifically the Round Table was expected to have important impacts by:

- Establishing a clear set of recommendations to support decision making at the European level regarding nanomedical innovations;
- Identifying priority areas for research and development and for societal actions;
- Significantly enhancing the flow of knowledge reciprocally between each of the key stakeholder groups along the chain from research to patient, both directly among the Round Table participants and indirectly by them to their own organisations and networks;
- Helping to reduce fragmentation in nanomedical research across Europe;
- Contributing to mobilising additional public and private investment in nanomedical research and development in Europe by providing clear assessments of its potential impacts agreed by all stakeholders thus enabling investors to better evaluate risk;
- Overall thereby stimulating innovation in Nano biotechnologies for medical use;

Potential impacts can be further assessed through the following measuring tools:

- **Betweenness centrality:** Among the ten projects participants, three participants (COMMISSARIAT A L'ENERGIE ATOMIQUE, DARMSTADT UNIVERSITY OF TECHNOLOGY and TECHNICAL UNIVERSITY DELFT) were amongst the top 1% most central organisations in FP7. These organisations were able to diffuse and spread information and knowledge efficiently within the network, therefore we expect project results to be efficiently diffused and to have a significant impact on the European research community.
- **Scientific attractiveness:** No highly ranked universities participated in the project.
- **Business attractiveness:** No highly ranked R&D investors participated in the project.

### Actual impact

As a result of the project documents and/or as commented during the interviews with project coordinators, actual impacts can be clustered into four types:

- **Scientific impact:** No scientific publication stemming from the project could be identified;
- **Social Media impacts:** between 2009 and 2012, only 14 posts referring to the NANOMED ROUND TABLE project could be found;
- **Institutional and organisational impact:** NANOMED ROUND TABLE was expected to have an impact on decision making at the European level regarding nanomedical innovations through a clear set of recommendations;
- **Policy impact:** NANOMED ROUND TABLE was expected to have an impact on policies at the European level regarding nanomedical innovations through a clear set of recommendations.

## EU ADDED VALUE OF THE PROJECT

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As the main goals of the project were to produce a set of recommendations to support decision making regarding nanomedical innovations, it made sense to organise the NANOMED ROUND TABLE project at the EU level. One Member State would not have had the legitimacy nor the will to take responsibility for setting recommendations to be used internationally.

## PARTICIPANTS AND RESEARCH TEAM

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### Participants

Number of participants: 10

Number of countries involved: 4

	Type	Country	Role	Previous participations in FP
TECHNISCHE UNIVERSITEIT DELFT	HES	NL	Coordinator	406
COMMISSARIAT A L'ENERGIE	REC	FR	Participant	745

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	Type	Country	Role	Previous participations in FP
ATOMIQUE ET AUX ENERGIES ALTERNATIVES				
TECHNISCHE UNIVERSITAET DARMSTADT	HES	DE	Participant	110
GENETIC ALLIANCE UK LTD	OTH	GB	Participant	5
GESELLSCHAFT FUR BIOANALYTIK MUNSTER EV	REC	DE	Participant	3
DEUTSCHES MUSEUM VON MEISTERWERKEN DER NATURWISSENSCHAFT UND TECHNIK	REC	DE	Participant	5
CAMBRIDGE BIOMEDICAL CONSULTANTS LIMITED	PRC	GB	Participant	2
SYMBIOTIC CONSULTANCY LIMITED	PRC	GB	Participant	1
HAYHURST MEDIA - RICHARD AND AMANDA HAYHURST	PRC	GB	Participant	1
MARK CANTLEY	PRC	GB	Participant	1

### Team Composition

Team Size: 10 members

GENDER				
Female		Male		Unknown
10%		90%		0%
SENIORITY				
Average		Junior		Senior
0%		0%		100%
PhD				
No		Yes		
20%		80%		
BACKGROUND				
Applied Sciences	Health Sciences	Humanities & Social Sciences	Natural Sciences	Unknown
10%	20%	30%	40%	0%

\*The data are based on the analysis of the provided project's Description of Work.

### DELIVERABLES AND PUBLICATIONS

#### Deliverables

The date of delivery compared to the actual date of submission cannot be completed without the final report.

DELIVERABLE NO.	DELIVERABLE NAME	DUE DATE OF DELIVERY (month)	ACTUAL SUBMISSION DATE: (month)
D1.1	Set-up and Concluding Round Tables		
D1.2	Steering Group meetings (4)		
D1.3	Final report		
D2.1	Initial and Final Patients' Needs WG meetings		
D2.2	Patients' Needs WG Final report		
D3.1	Initial and Final Ethics and Societal Impact WG		
D3.2	Ethics and Societal Impact WG Final report		
D4.1	Initial and Final Economic Impact WG meetings		
D4.2	Economic Impact WG Final report		
D5.1	Initial and Final Regulation WG meetings		
D5.2	Regulation WG Final report		
D6.1	Initial and Final Communication WG meetings		

Stock-taking and meta-analysis of Science in Society projects throughout FP6 and FP7  
Final Case Studies

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DELIVERABLE NO.	DELIVERABLE NAME	DUE DATE OF DELIVERY (month)	ACTUAL SUBMISSION DATE: (month)
D6.2	<i>Communication WG Final report</i>		
D6.3	<i>Establishment and maintenance of project website and content for stakeholder websites</i>		
D6.4	<i>Conference presentations</i>		
D6.5	<i>Press releases</i>		
D6.6	<i>Articles in specialist and popular journals, magazines, newspapers, etc.</i>		
D6.7	<i>Targeted dissemination to relevant Member State government Ministries and national organisations</i>		
D6.8	<i>TV documentary about the Round Table's topics, discussions, outcomes and personalities if this can be arranged</i>		
D7.1	<i>Communications with the Commission</i>		
D7.2	<i>Final technical report to the Commission</i>		

**Related publications**

No publications could be identified.

**MAIN SOURCES**

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NANOMED ROUND TABLE Description of Work  
NANOMED ROUND TABLE Report on the Nanomedicine Environment

## **PUBLIC PERCEPTION OF GENETICALLY MODIFIED ANIMALS - SCIENCE, UTILITY AND SOCIETY - "PEGASUS"**

**Framework Programme: FP7**  
**Action line/Part: -**  
**Activity: -**  
**Area: -**  
**Dimension: Science and Ethics**  
**Tool: Coordination and support action**  
**Project Call For Proposal: FP7-KBBE-2008-2B**  
**Status: Closed**  
**Total cost: € 1 170 968**  
**Total EU funding: € 978 088**  
**Website: <http://www.wageningenur.nl/en/project/Pegasus-2.htm>**  
**Period: 01/08/2009 - 31/07/2012**  
**Subjects: Social Aspects - Veterinary and animal sciences**  
**Project ID and Acronym: 226465 - PEGASUS**

### **BACKGROUND AND CONTEXT OF THE PROJECT AND STRATEGIC NEEDS**

An EU-wide survey (Eurobarometer 341, 2010) revealed an overall suspicion of genetically modified (GM) foods amongst the European public: 61% of Europeans disagreed that the development of GM food should be encouraged and only 59% agreed that GM food is safe for their health and that of their family.

Successful technological developments in the area of GM of animals, particularly in the context of the derivation and production of novel foods, and other products such as biopharmaceuticals, required the development of a European policy that takes into account the advantages and disadvantages of the field, including the impact of public perceptions of GM animals and their applications.

### **SPECIFIC PROJECT OBJECTIVES**

#### **Project objectives**

PEGASUS aimed to provide policy support regarding the development, implementation and commercialisation of GM animals, and derivative foods and pharmaceutical products within the EU. To achieve this overarching goal, seven main objectives were defined:

- **Objective 1:** To integrate national and European data on consumer perceptions associated with genetic modification of animals (both aquatic and terrestrial species) and foods and pharmaceutical products derived from them:
  - To provide greater insight into public perceptions of GM animals
  - To identify emerging issues that need to be addressed in further studies
- **Objective 2:** To identify current and future technical developments in the area of genetic modification applied to animals, including the GM food and pharmaceutical animal applications, and potential differences between high and low prolificacy species, that are most likely to enter the market in or outside the EU in the near future:
  - To provide the basis of possible scenario development regarding economic and life sciences consequences, as well as identification of information of direct relevance to EU policy development and other end-user needs
  - To provide information to be included in considerations of EU policy makers
- **Objective 3:** To provide insight into economic advantages and disadvantages of GM animals and their applications from a production chain (feed industry, breeding industry, primary sector, processing industry, pharmaceutical industry):
  - To identify positive and negative economic consequences of the technology developments identified during the technology foresight activities
  - To provide a methodology approached method and empirical analysis regarding the evaluation of the economic performance of GM applications in the livestock chains
- **Objective 4:** To create an overview of the various risks and benefits of GM animals, from the point of view of the life sciences:
  - To identify the risks and benefits of specific scenarios for GM animal applications identified during the technology foresight activities

- **Objective 5:** To conduct an analysis of the ethical issues that may result from the range of uses of GM animals and map value-based arguments presented by stakeholders:
  - To collate the documented ethical concerns raised by various stakeholder groups, academics and commentators
  - To categorise the ethical themes and prominent issues of the current ethical discourse
  - To conduct a series of stakeholder workshops in order to explore and map ethical concerns, including those related to policy development and governance practices, raised for a specific series of case studies
  - To map key areas of divergence and convergence in stakeholders' perspectives of the ethical impacts (positive and negative), including those related to policy development and governance practices
- **Objective 6:** To identify policy gaps and recommend the policy options that need to be considered:
  - To draw out the policy implications for the EU and its Member States
  - To analyse the existing range of EU member state and international policies applicable to the GM animals
- **Objective 7:** To inform the considerations of EU policy makers as well as the other specialist stakeholders regarding public concerns and preferences for the strategic development and application of genetic modification applied to animals, including the food derived from them:
  - To conduct a public engagement exercise as a 'proof of principles' event
  - To clarify public responses to emerging issues concerning genetic modification of animals

#### **Programme objectives**

This project aimed to provide policy support regarding the development, implementation and commercialisation of GM animals, and derivative foods and pharmaceutical products. The objectives of PEGASUS were consistent with the SiS objective of a better understanding of the place of science and technology in society.

#### **Innovation Union Objectives**

Strengthening the knowledge base is an objective of the Innovation Union. In that respect, PEGASUS's purpose was consistent with the Innovation Union goals as it was aimed to provide policy support regarding the development, implementation and commercialisation of GM animals, and derivative foods and pharmaceutical products within the EU.

#### **European Research Area Objectives**

Optimal transnational co-operation is an objective of ERA. In that respect, PEGASUS's purpose is consistent with ERA goals as it was aimed to provide policy support regarding the development, implementation and commercialisation of GM animals, and derivative foods and pharmaceutical products within the EU.

#### **SaS Action Plan**

The project was in line with the SaS Action Plan and in particular with:

- Action 29, as it helped to develop information and documentation for ethical issues, through the identification of an overview of the various risks and benefits of GM animals,
- Action 31, as it contributed to raising researchers' awareness of ethical issues, by communicating public responses to emerging issues concerning GM animals,
- Action 34, as the heart of the research and the recommendations were turned to policy improvement in the field of GM animals.

### **PROJECT RESULTS AND OUTCOMES**

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#### **Project outcomes**

The PEGASUS project was implemented in line with the objectives set out in the Description of Work. A synthesis of project results is presented below:

- Concerning **objective 1**, a systematic review of the published literature on public perceptions of GM animals was conducted. Meta-analysis were conducted which aggregated published data on public perceptions of GM animals and plants, allowing changes in perceptions and attitudes in time, and in different regions to be analysed.
- Concerning **objective 2**, realistic scenarios of technological applications of genetic modification that may enter the market in the near future were performed through a combination of literature review, data mining activities, and expert consultation with industry and academic specialists. The main risk assessment concern was food safety, given the potential for increased allergenicity or toxicity, as well as the impact on the environment. Results also suggested that techniques available to generate GM animals improved

considerably: development costs no longer represent a major barrier to the development of transgenic animals. Life-science related risks and benefits were also studied through specific case studies.

- Concerning **objective 3**, the economic implications of GM animals and their applications throughout the production chain were considered. The economic impact of different applications of GM animals was studied and two main consequences were identified. First, it was predicted that production costs would decrease, which would potentially influence producers' and consumers' acceptance. Second, the introduction of stricter regulations, such as traceability and labelling systems, would increase production costs. It was concluded that policy makers should take into consideration the socio-economic aspects associated with the introduction of GM into the evaluation and authorisation processes of new applications, such as the economic benefits and costs and their distribution.
- Concerning **objective 4**, a combination of literature review, data mining activities, and expert consultation with industry and academic specialists revealed that advances in research into GM farm animals resulted in foods derived from these animals having enhanced quality or production yields or nutritional value. A major problem in conventional breeding remains that of animal diseases, which result in loss, animal welfare problems and threats to human health. The use of GM animals for the production of pharmaceuticals from GM animals is relatively efficient, but rarely applied in a commercial context, in particular by pharmaceutical companies. Finally, some animal welfare issues associated with GM animals were identified.
- Concerning **objective 5**, the published literature review on public perceptions of GM animals suggested that ethical concerns and perceptions of unnaturalness influenced acceptance, although the relationship between these different variables was not predictable. The ethical issues raised by the development and application of genetic modification were considered through a process of stakeholder consultation (series of five dedicated workshops) in order to identify values and principles underlying the stakeholder's perceptions of GM animals. Stakeholders suggested that any collective decision-making process should not be rushed; that it may be important to first reconsider conventional practices and alternative technological approaches to reach the same objectives, together with the wider management and use of natural resources; that consideration of socio-economic impact was an integral part of any technology assessment process; and that more data is needed to support a number of statements about GM animals.
- Concerning **objective 6**, various policy-related issues, including regulatory needs, were considered in order to address the aspects of the envisaged near-future applications of GM animals. Workshops were held in order to discuss with stakeholders various policy-related issues associated with the introduction of GM animals, and to identify policy gaps and recommend policy options that need to be considered. The results suggested that, at the regulatory stage in the EU, existing GMO governance was reasonably well prepared for GM animals. Some specific policy recommendations were also identified and classified into those relating to: science, innovation and commercialisation and communication. In terms of governance, stakeholders indicated that the EU should maintain its efforts to harmonise regulation that could also have an effect on GMOs, as well as the drive to facilitate the operation of an internal European market which promotes unity and enhances the EU's competitiveness in the global market.
- Concerning **objective 7**, the consultation process was aimed to examine public perspectives and demonstrate the utility of an approach to public consultation. The citizens' jury approach was tested and expected to be proved a best practice in public engagement for the development of future policy regarding innovation in the area of GM animals. Jurors' conclusions were in line with those of the public perception analysis, validating the use of the citizens' jury approach as a tool to engage citizens and solicit information about their opinions regarding GM animals. Citizens' jury and other related deliberative processes were therefore recommended as a useful approach to fine-tuning policy relating to GM animals.

Minor issues were identified, according to the final activity report. Firstly, as specified in the first WP, the project was supposed to provide a systematic literature review and a meta-analysis of the data. However, due to the much greater number of papers identified and the resource required to complete the meta-analysis, delays occurred. Secondly, as specified in the 5<sup>th</sup> WP, delays also happened in the delivery of the results of the five workshops.

### **Programme objectives**

As stated in the project objectives section and confirmed by project deliverables, PEGASUS project results are in line with the SiS objective of a better understanding of the place of science and technology in society.

### **Main achievements according to SaS Dimensions**

PEGASUS project results were in line with the Science and Ethics SiS dimension as they contribute to better explore the relationship between ethics, law and science for newly emerging science and technology areas.

More in detail, the project fostered the debate on ethics between civil society and researchers, through the organisation of five workshops involving different EU and non-EU stakeholders. It also discussed the ethical implications of innovation on technology, by addressing issues related to GM animals.

## **DISSEMINATION AND ENGAGEMENT ACTIVITIES AIMED AT TRANSFERRING THE PROJECT RESULTS TO WIDER COMMUNITIES**

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Dissemination was explicitly identified in the objectives of the PEGASUS project:

- Five workshops were convened. The first three focused on mapping stakeholder views and were held in three European countries, namely in Germany, Norway and the UK. A fourth workshop was held in Brussels involving participants with an EU policy profile. The final workshop was held in Hyderabad, India, and provided a non-EU perspective. These workshops had both a data collection and dissemination dimension.
- A public website was produced, which was expected to attract visitors engaged in the area of life sciences (among which the areas of food and food production, plant and animal, environment and climate, economics and society).
- Publications in peer-reviewed journals and conference presentations enabled the project team to disseminate knowledge towards the scientific community.

On the basis of the final activity report, it seems that all planned dissemination activities were conducted.

## **PROJECT IMPACTS**

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Potential impacts of the project:

- **Contribution to standards:**
  - Results were expected to provide information which would facilitate to the development of commercialisation of GM animal technology, and the foods and pharmaceutical products derived from them, through identification of the economic advantages and disadvantages of GM animals in the context production chain context, together with an overview of public preferences for commercialisation strategies developed from the overview of public perceptions and outputs of the public engagement exercises.
  - A comparison was expected to be made of the commercial advantages and disadvantages of terrestrial and aquatic GM animals from an industrial perspective.
  - Identification of socio-economic and technological pros and cons would ensure that the order of entry of food products into the market is optimized.
- **Contribution to policy developments:**
  - The project provided an overview of what is possible in the area of GM animals and their applications, in particular applied to the agrifood sector and the foods and pharmaceutical products derived from them.
  - The project provided policy support regarding existing and emerging pros and cons associated with these applications, both from a social science and natural science perspective, and their implications for developing a coherent policy framework.
  - The project produced recommendations aimed to harmonize European policies with international policy developments.
  - Cultural differences in public perceptions across different EU member states were expected to be identified, enabling fine-tuning of national policy regarding the introduction of GM animals and the foods and pharmaceutical products derived from them in different EU member states.
- **Betweenness centrality:** Among the twelve projects participants, six participants are amongst the top 1% of organisations participating to the specific programmes "Cooperation" in FP7.
- **Scientific attractiveness:** The best ranked University participating in the project is the KING'S COLLEGE LONDON (68th).
- **Business attractiveness:** No highly ranked R&D investors participated in the project.

**Actual impact** as resulting from the project documents and/or commented during the interviews with project coordinators. Impacts can be clustered into four types:

- **Scientific impact:** Six publications had an impact on the scientific community:
  - "Attitudes towards genetically modified animals in food production" (8 citations)
  - "Genetically modified animals from life-science, socio-economic and ethical perspectives: examining issues in an EU policy context" (10 citations)
  - "Production of human polyclonal antibodies by transgenic animals" (9 citations)



- "Public perceptions of agri-food applications of genetic modification - a systematic review and meta-analysis" (63 citations)
- "The current state of GMO governance: are we ready for GM animals?" (26 citations)
- "Will GM animals follow the GM plant fate?" (11 citations)
- **Institutional and organisational impact:** through the stakeholder consultation, PEGASUS was able to deliver a set of recommendations for future European action:
  - Any collective decision-making process should not be rushed
  - Conventional practices and alternative technological approaches to reach the same objectives, together with the wider management and use of natural resources, should be reconsidered before using GM
  - Socio-economic impact should be an integral part of any technology assessment process
  - More data is necessary to support a number of statements about GM animals
- **Policy impact:** PEGASUS results delivered data relevant to support policy with the development of an innovation strategy, taking into account the range of issues associated with GM animals from a life and social science perspective. As for any emerging area of technology, potential risks and benefits were identified, and, in the case of GM animals, the evidence suggested that these require a case-by-case analysis.

## EU ADDED VALUE OF THE PROJECT

As the main goals of the project were to provide policy support regarding the development, implementation and commercialisation of GM animals, and derivative foods and pharmaceutical products within the EU, it was advantageous to organise the PEGASUS project at the EU level. Working at a European scale provided the project analysis geographically diverse data and enabled the initiation of a European-wide debate of GM animals and plants for future legislation.

## PARTICIPANTS AND RESEARCH TEAM

### Participants

Number of participants: 12

Number of countries involved: 8

	Type	Country	Role	Previous participations in FP
UNIVERSITY OF NEWCASTLE UPON TYNE	HES	GB	Coordinator	242
INSTITUT NATIONAL DE LA RECHERCHE AGRONOMIQUE	REC	FR	Participant	278
WAGENINGEN UNIVERSITY	HES	NL	Participant	253
KING'S COLLEGE LONDON	HES	GB	Participant	291
THE UNIVERSITY OF NOTTINGHAM	HES	GB	Participant	289
UNIVERSITETET I BERGEN	HES	NO	Participant	102
UNIVERSITA DEGLI STUDI DI PARMA	HES	IT	Participant	51
STICHTING DIENST LANDBOUWKUNDIG ONDERZOEK	REC	NL	Participant	297
AGROBIOINSTITUTE	REC	BG	Participant	12
INSTITUTE OF FOOD RESEARCH	REC	GB	Participant	28
PERSEUS BVBA	PRC	BE	Participant	3
AGRIBIOTECH FOUNDATION	HES	IN	Participant	1

### Team Composition

Team Size: 29 members

GENDER		
Female	Male	Unknown
34%	66%	0%
SENIORITY		
Average	Junior	Senior
0%	0%	100%
PhD		

Stock-taking and meta-analysis of Science in Society projects throughout FP6 and FP7  
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No		Yes		
14%		86%		
BACKGROUND				
Applied Sciences	Health Sciences	Humanities & Social Sciences	Natural Sciences	Unknown
7%	17%	48%	17%	10%

\*The data are based on the analysis of the provided project's Description of Work.

## DELIVERABLES AND PUBLICATIONS

### Deliverables

DELIVERABLE NO.	DELIVERABLE NAME	DUE DATE OF DELIVERY (month)	ACTUAL SUBMISSION DATE: (month)
D8.1	Final dissemination plan	3	
D8.2	Website	3	
D2.1	Public report summarizing GM animal technology	14	
D8.3	Periodic reporting documents including EAB report	18	
D1.1	Report on reviewing existing knowledge regarding public perception of GM animals	18	
D3.1	Report on Production chain context	18	
D4.1	Report on scenario development of GM animals and food	18	
D5.1	Report on Ethical issues raised by the production and use of GM Animals	27	
D6.1	Report on the policy options for the regulation of the GM animal field	27	
D7.1	Citizen jury summary reports from the UK and Italy	32	
D7.2	Commentary reports on the two citizen jury activities	36	
D7.3	Proceedings final dissemination workshop end-users	36	
D8.4	Final report on the impact of public perceptions associated with GM animals, together with the foods and pharmaceutical products derived from them, and policy implications	34	
D8.5	Periodic reporting documents including EAB report	36	

### Related publications

PUBLICATION TITLE	Number of citations
Attitudes towards genetically modified animals in food production	8
Genetically modified animals from life-science, socio-economic and ethical perspectives: examining issues in an EU policy context	10
Production of human polyclonal antibodies by transgenic animals	9
Public perceptions of agri-food applications of genetic modification - a systematic review and meta-analysis	63
The current state of GMO governance: are we ready for GM animals?	26
Will GM animals follow the GM plant fate?	11

### MAIN SOURCES

PEGASUS Description of Work  
PEGASUS Final Report

## **SUPPORTING FUNDAMENTAL RIGHTS, PRIVACY AND ETHICS IN SURVEILLANCE TECHNOLOGIES - "SAPIENT"**

**Framework Programme: FP7**  
**Action line/Part: -**  
**Activity: -**  
**Area: -**  
**Dimension: Science and Ethics**  
**Tool: Collaborative project**  
**Project Call For Proposal: FP7-SEC-2010-1**  
**Status: Closed**  
**Total cost: € 1 532 649.56**  
**Total EU funding: € 1 248 577.00**  
**Website: <http://www.sapientproject.eu/>**  
**Period: 01/02/2011 - 31/07/2014**  
**Subjects: Information and Media - Security**  
**Project ID and Acronym: ID: 261698, Acronym: SAPIENT**

### **BACKGROUND AND CONTEXT OF THE PROJECT AND STRATEGIC NEEDS**

Surveillance systems and technologies are no longer confined to law enforcement authorities, intelligence agencies and the military. Modern information technology has made of surveillance an everyday phenomenon. Already today surveillance technology monitors road traffic on roads and passengers on the underground; government services use surveillance technology to check who is really entitled to social services; and Internet service providers inspect their customers' data traffic to target them with personalised advertising.

The European Union has recognised the problematic potential of smart surveillance technologies and claims that a balance must be struck between surveillance and control to minimise the potential impact of terrorist action on the one hand, and respect human rights, privacy, social and community cohesion, and the successful integration of minority communities on the other.

### **SPECIFIC PROJECT OBJECTIVES**

SAPIENT aimed at identifying and analysing the impacts that could have future smart surveillance technologies when used for profiling citizens to identify potential evil-doers, for crime control in urban settings or for border control and critical infrastructure protection. The SAPIENT consortium formulated five main objectives for this project:

- **Objective 1:** To provide the Commission and other stakeholders with strategic knowledge about the context of surveillance technologies and practices that can be used as the basis for decision-making by developing a picture of today's surveillance society and the trend towards a "generalisation" (pervasiveness and banalisation) of surveillance.
- **Objective 2:** To engage civil society and other stakeholders to understand how and when smart surveillance should be used to target the critical parts of security and its characteristics to be effective, scalable and rapidly adapt to changing situations.
- The consortium had planned to achieve this objective by means of three actions:
  - Developing scenarios depicting different situations related to surveillance issues and defining appropriate focus groups to analyse the related issues;
  - Convening three focus groups compound of stakeholders from different horizons to consider the data protection and integrity issues raised by surveillance, as depicted in the scenarios, how surveillance should be targeted, what is surveillance and its characteristics to be effective and scalable to adapt rapidly to changing situations;
  - Providing a cross-cutting analysis of the views of stakeholders, including civil society, on how and when smart surveillance should be used.
- **Objective 3:** To specify criteria for data protection and integrity that can be used to verify that surveillance systems and sharing of information respect privacy of citizens and, in doing so, find a balance between data collection needs and data protection and privacy.
- The consortium had planned to achieve this objective by:
  - Building on the results of the first two work packages;
  - Extracting the best elements of existing privacy impact assessment methodologies;
  - Developing a privacy impact assessment methodology tailor-made for smart surveillance projects, technologies, applications and policies.

- **Objective 4:** To validate the consortium's privacy impact assessment methodology suitable for surveillance systems and technologies.
- The consortium had planned to achieve this objective by testing their methodology in three different smart surveillance situations, that is, to carry out a privacy impact assessment in each of three different field studies.
- **Objective 5:** To pave the way for an approach of surveillance where respect for privacy will be safeguarded, by providing improved insight and advice for security policy-makers, security research programme makers and (mission oriented) security research performers.
- The consortium had planned to achieve this objective by making available the consortium's findings and recommendations at the project's final conference and as contained in the project's final report to the Commission and other stakeholders in WP5.

### **SiS Programme objectives /Action lines**

The SAPIENT objectives were in line with the developments under the Science and Ethics dimensions, notably by tackling research on science and ethics on an emerging field like privacy and smart surveillance.

### **Innovation Union objectives**

The objectives of the SAPIENT project were in line with the Innovation Union objectives of maximising social and territorial cohesion, by aiming to strike the right balance between security and privacy to maximise people's protection and freedom.

### **European Research Area (ERA) objectives**

The SAPIENT objectives only seem to be indirectly in line with the ERA objectives: by deepening the strategic knowledge on surveillance technologies and practices, SAPIENT contributed to developing new research areas and share knowledge across countries, two aspects indirectly consistent with the ERA objectives of achieving more effective national research systems and cooperation.

### **SaS Action Plan**

The SAPIENT objectives were consistent with the SaS Action Plan as they contributed to ensuring the ethical dimensions in science and new technologies, and put responsible science at the heart of policy-making.

By inviting different stakeholders and researchers to participate to exploratory workshops, providing recommendations, methodology and strategic knowledge to policy makers, the project encouraged awareness raising and was in line with Action 31 of the SaS Action plan.

## **PROJECT RESULTS AND OUTCOMES**

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### **Project objectives**

The SAPIENT project achieved the following outputs:

- Five main reflexions were developed to fuel impact assessments:
  - A state-of-the-art review of smart surveillance offered five key observations or the study of smart surveillance and the reflection on how an innovative privacy impact assessment methodology tailored for surveillance can be devised.
  - The relation between surveillance and freedom was investigated with regard to devising privacy oriented methodologies.
  - The importance of dataveillance was noted.
  - The shifting aspect of surveillance was highlighted.
  - The importance of the technical aspect of surveillance was stressed.
- **Smart assemblages were analysed:** The SAPIENT consortium investigated how emerging forms of surveillance are becoming pervasive in our daily lives and examined the public's acceptance of different forms of surveillance.
- **A legal analysis of fundamental rights in the context of smart surveillance was carried out** with the goal to advance a state of the art to pave the way for further analysis and research. It proposed seven elements, or points of reflection, to advance beyond this first move:
  - Smart surveillance and data minimisation;
  - Scalable data gathering;
  - Machines operated surveillance: automatic non-discrimination?

- A comprehensive data protection framework and private-public surveillance partnerships;
- The notion of personal data;
- Effectiveness;
- Has privacy been left behind?
- **An analysis of public opinion was conducted:** The SAPIENT consortium investigated public acceptance of surveillance and admitted that it is difficult to draw definitive conclusions as to which theoretical framings and which elements of academic discourse present the best explanation as to the findings of surveys or the deeper reasons for these findings as a result of how citizens engage with surveillance practices and technologies.
- **Scenarios and stakeholder consultation workshops were conducted:** As part of its work on addressing the potential impacts that current and emerging smart surveillance technologies could have on privacy and other fundamental rights, the SAPIENT consortium invited a range of different types of stakeholders to participate in scenario-based workshops. Invited participants included academics, policy-makers and representatives from industry (including private companies and R&D specialists), public authorities, law enforcement, data protection authorities (DPA), civil society organisations (CSOs) and research institutions. The consortium drafted three scenarios, focused on:
  - Security in public spaces;
  - Border security and immigration control;
  - Business practices such as personalised advertising.
- **Potential solutions were proposed:** In all three workshops, stakeholders proposed possible solutions to better protect privacy and other fundamental rights given the proliferation of smart surveillance technologies. The main propositions were:
  - Better enforcement of existing rules;
  - Consumer or citizen education;
  - Privacy-by-design approaches;
  - Self-regulation;
  - Privacy impact assessment.
- **A surveillance impact assessment was developed:** a principal goal of the SAPIENT project was to develop and test a surveillance impact assessment. To that end, the consortium first examined the state of the art in privacy impact assessment to see what lessons or best practices could be applicable to an SIA methodology. Then, the consortium developed a relevant methodology, tested on four case studies and then updated it. The resulting methodology may help to balance privacy concerns with public needs.

On the basis of the collected information, it seems that all planned objectives were achieved. However, the Final Activity Report was not available.

### **Programme objectives**

The results obtained through SAPIENT were in line with the objectives of the Science and Ethics dimension: the organisation of scenarios and stakeholder consultation workshops, notably with policy-makers, the design of potential answers, the consultation of public opinion and the development of a surveillance impact assessment are consistent with the trend under Ethics and Science in FP7 to focus on research underpinning policy related to ethics and considering the relationship between ethics, law and science for new emerging science and technology areas like smart surveillance.

### **Main achievements according to SiS Dimensions**

The project was in line with the SiS Science and Ethics Dimension, as it focused on identifying the ethical issues related to data protection in the field of future smart surveillance technology, contributing to the exploration of ethical implications of innovation in technology. Beyond this, it also fostered the debate on ethics between civil society and representatives, as participatory methods were implied and different types of stakeholders (academics, policy-makers and representatives from industry, public authorities, law enforcement, data protection authorities, civil society organisations and research institutions) were invited to take part to the workshops.

### **DISSEMINATION AND ENGAGEMENT ACTIVITIES AIMED AT TRANSFERRING THE PROJECT RESULTS TO WIDER COMMUNITIES**

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The following dissemination activities were carried out:

- 22 participations in conferences or workshops;

- 1 final conference about SAPIENT;
- The project website;
- Brochure, flyer and poster;
- 26 articles published;
- 4 Policy meetings;
- Press releases;
- 4 Policy briefs.

It seems that all main dissemination activities as foreseen in WP5 and WP6 of the DoW were conducted. However, there is no evidence with regards to the activity aiming at developing a "Liaison with other projects and activities".

## PROJECT IMPACTS

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### Potential impact

SAPIENT was expected to have potential impacts in several fields:

- **Strategic impact:** SAPIENT was expected to partake in developing an approach of surveillance putting at its core the respect of citizens' privacy. The expected impacts of the projects consisted in contributing to limiting the collection and storage of unnecessary data to find a balance between data collections needs and data privacy. Such developments should contribute to increasing simultaneously transparency, privacy protection, and trust.
- **Impact on competitiveness:** carrying out privacy impact assessments could be seen by companies as a valuable investment insofar as they could enable them to detect early on any privacy, legal risks potentially translating into significant costs.

Potential impacts can be further assessed through the following measurement tools:

- **Betweenness centrality:** three institutions out of the seven participating in the project were in the top 1% most central institutions in FP7. Six were in the top 5% and all in the top 10%.
- **Scientific attractiveness:** Two institutions out of seven were ranked in the Leiden university ranking: King's College London ranked 68<sup>th</sup>, and the Vrije Universiteit Brussel ranked 225<sup>th</sup>.
- **Business attractiveness:** No participants from SAPIENT was ranked amongst the biggest R&D investors to take part in SiS. This can notably be explained by the fact that participants were mainly universities and research institutes.

### Actual impact:

The actual impact of SAPIENT can be clustered into four types:

- **Scientific impact:** the project resulted in ten scientific publications. Six of these ten publications were cited in other scientific articles and publications, between 6 and 36 times. This high number of citations suggests a quite high scientific impact of the project.
- **Social Media impacts:** between 2011 and 2016, 15 posts were found referring to the SAPIENT project, suggesting a very limited social media visibility and impact.
- **Institutional and organisational impact:** the project did not result in the creation of institutions, bodies or networks.
- **Policy impact:** the organisation of scenarios and stakeholder consultation workshops, notably with policy-makers, the design of potential answers, the consultation of public opinion and the development of a surveillance impact assessment speak in favour of a significant policy impact. Nevertheless, no concrete proof of impact could be directly linked to these results yet.

## EU ADDED VALUE OF THE PROJECT

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Having the project funded by EU programmes enabled the beneficiaries to do research on a European level and to benefit from the knowledge of different European leading institutions. Furthermore it expanded the project's scope and the exchange of knowledge among Member States as results were presented in several conferences in different European countries.

## PARTICIPANTS AND RESEARCH TEAM

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### Participants

Stock-taking and meta-analysis of Science in Society projects throughout FP6 and FP7  
Final Case Studies

Number of participants: 7

Number of countries involved: 5

	Type	Country	Role	Previous participations in FP
FRAUNHOFER-GESELLSCHAFT ZUR FOERDERUNG DER ANGEWANDTEN FORSCHUNG E.V	REC	DE	Coordinator	1205
KING'S COLLEGE LONDON	HES	GB	Participant	291
VRIJE UNIVERSITEIT BRUSSEL	HES	BE	Participant	117
CENTRE FOR EUROPEAN POLICY STUDIES	REC	BE	Participant	33
CENTRE FOR SCIENCE, SOCIETY AND CITIZENSHIP	PRC	IT	Participant	20
TRILATERAL RESEARCH & CONSULTING LLP	PRC	GB	Participant	19
UNIVERSITA DELLA SVIZZERA ITALIANA	HES	CH	Participant	21

### Team Composition

Team Size: 24 members\*

GENDER				
Female		Male		Unknown
42%		58%		0%
SENIORITY				
Average		Junior		Senior
0%		4%		96%
PhD				
No			Yes	
54%			46%	
BACKGROUND				
Applied Sciences	Health Sciences	Humanities & Social Sciences	Natural Sciences	Unknown
0%	8%	58%	0%	29%

\*The data are based on the analysis of the provided project's Description of Work.

## DELIVERABLES AND PUBLICATIONS

### Project deliverables

DELIVERABLE NO.	DELIVERABLE NAME	DUE DATE OF DELIVERY (month)	ACTUAL SUBMISSION DATE: (month)
D1.1	Smart Surveillance – State-of-the-Art Report	7	12
D2.1	Scenario Report	13	17
D2.2	Report on focus groups	16	20
D2.3	Consolidated analysis of stakeholder views	18	20
D2.4	Concept, agenda and attendees' list for focus groups	12	12
D2.5	Informed consent form	12	12
D3.1	Privacy Impact Assessment: State-of-the-Art report	24	27
D3.2	Draft Surveillance Privacy Impact Assessment Manual	24	33
D4.1	PIA report #1	33	42
D4.2	PIA report #2	33	42
D4.3	PIA report #3	33	42
D4.4	Surveillance Privacy Impact Assessment Manual	35	45
D5.1	Final SAPIENT Report (draft)	35	42

Stock-taking and meta-analysis of Science in Society projects throughout FP6 and FP7  
Final Case Studies

DELIVERABLE NO.	DELIVERABLE NAME	DUE DATE OF DELIVERY (month)	ACTUAL SUBMISSION DATE: (month)
D5.2	SAPIENT conference report	35	42
D5.3	Final SAPIENT Report (final)	36	44
D6.1	Project website	2	No date
D6.2	Standard high-level flyer, poster and brochure	2	No date
D6.3	Draft Policy Brief #1	8	12
D6.4	Policy Brief #1	8	12
D6.5	Draft Policy Brief #2	18	24
D6.6	Policy Brief #1	19	31
D6.7	Draft Policy Brief #3	33	40
D6.8	Policy Brief #3	33	40
D6.9	Draft Policy Brief #4	36	45
D6.10	Policy Brief #4	36	45
D7.1	Details on the Security Expert Group	2	4

**Related publications**

PUBLICATION TITLE	Number of citations
<i>A guide to surveillance impact assessment - how to identify and prioritise risks arising from surveillance systems: SAPIENT. Supporting Fundamental Rights Privacy and Ethics in Surveillance Technologies. Deliverable 4.4</i>	0
<i>Considering the Human Implications of New and Emerging Technologies in the Area of Human Security</i>	6
<i>Constructing a surveillance impact assessment Findings and Recommendations. Final Report: SAPIENT. Supporting Fundamental Rights Privacy and Ethics in Surveillance Technologies. Deliverable 5.2</i>	22
<i>Politics of Disappearance: Scanners and (Unobserved) Bodies as Mediators of Security Practices</i>	0
<i>Reconciling privacy and security</i>	21
<i>Sorting out smart surveillance</i>	11
<i>Surveillance Impact Assessment Manual: SAPIENT. Supporting Fundamental Rights Privacy and Ethics in Surveillance Technologies</i>	36
<i>The ethics of "smart" advertising and regulatory initiatives in the consumer intelligence industry</i>	0
<i>Trust and privacy in mobile experience sharing: future challenges and avenues for research</i>	0
<i>Trust and privacy in mobile experience sharing: future challenges and avenues for research</i>	9

**MAIN SOURCES**

SAPIENT Description of Work  
SAPIENT Report summary  
SAPIENT website



## **KNOWLEDGE-BASED SUSTAINABLE VALUE-ADDED FOOD CHAINS: INNOVATIVE TOOLS FOR MONITORING ETHICAL, ENVIRONMENTAL AND SOCIO-ECONOMICAL IMPACTS AND IMPLEMENTING EU-LATIN AMERICA SHARED STRATEGIES - "SALSA"**

**Framework Programme: FP7**  
**Action line/Part: -**  
**Activity: -**  
**Area: -**  
**Dimension: Science and Ethics**  
**Tool: Collaborative project**  
**Project Call For Proposal: FP7-KBBE-2010-4**  
**Status: Closed**  
**Total cost: € 3 744 849.00**  
**Total EU funding: € 2 999 493.00**  
**Website: <http://www.salsaproject.eu/>**  
**Period: 01/05/2011 - 30/04/2014**  
**Subjects: Food chains, sustainable development**  
**Project ID and Acronym: ID: 265927, Acronym: SALSA**

### **BACKGROUND AND CONTEXT OF THE PROJECT AND STRATEGIC NEEDS**

Latin American countries face environmental as well as social and economic challenges to their sustainable development. Among other things, the latter include deforestation, CO2 emission, reduced biodiversity, water-air soil pollution and soil degradation, reduction in food security, migration, unemployment and unequal income distribution. The consequent social and economic instability is estimated to affect 75 million small farmers, whose products are mainly oriented towards self-consumption and internal market. This also negatively affects the food security of the entire Latin American population.

Adopting environmentally and economically sustainable productions for small farmers and food SMEs in Latin America could significantly help reduce these negative impacts. So far, Latin American SMEs and small producers struggle to access the local as well as international markets with products obtained through sustainable methods (Lopez, 2006). This is due to technical, normative, social, political and economic barriers, such as for instance the cost of complying with national and international quality standards and trade regulations.

On a more political aspect, there is a mutual interest for EU and Latin American governments to develop strategies to tackle Latin American sustainability challenges by promoting social cohesion, economic development, and improving food SMEs market access to SMEs evolving in the food industry. Such interests were identified and tackled through strategies based upon different joint initiatives like the Madrid Commitment (2002) or the Rio20+ Summit (2012).

More specifically, soy and beef are among the most important products affecting both the Latin American sustainable development, its trade with the EU and the EU stakeholders' debate on sustainability.

In particular their rapid expansion and the increase in large-scale modern farms and processing plants are affecting the small farmers and SMEs, with relevant negative consequences in terms of conservation and management of natural resources, global poverty, public health, social inclusion, demography and migration.

When looking at the global market, an increasing trend in the demand for sustainable soy and beef is emerging. This new trend can be related to a positive circle involving NGOs, investors, large companies and media. Supporting a sustainable development in the soy and beef chains connecting Latin America and EU thus represents an important issue worth investigating.

### **SPECIFIC PROJECT OBJECTIVES**

The SALSA **overall objective** was to contribute to tackling Latin American countries' eco-challenges related to farm productions and food chains relationships between Latin America and EU, as well as enhance the food chains' value added and competitiveness.

SALSA **specific objectives** were:

- Objective 1: to increase the Latin American and EU food chains' social, environmental and economic sustainability (WP3; WP4; WP5);
- Objective 2: to improve the SMEs' and small agro-food producers' access to local and EU sustainable food export markets (WP2; WP4; WP5; WP6);
- Objective 3: to enhance the food chain agents' relations, both in terms of knowledge, exchange and efficient trading relations, in Latin America and EU (WP6; WP4; WP5);

- Objective 4: to promote the EU and Latin American policy makers' quality and quantity of information and support education, and to raise the awareness on the needs for an effective food policy oriented towards sustainability (WP7; WP5; WP2);
- Objective 5: to promote the EU and Latin American consumers' and civil society's quality and quantity of information, support and education, and to raise awareness on sustainable food production and consumption impact on their living conditions (WP7; WP5; WP2).

### **SiS Dimension**

By aiming to tackle the Latin-American countries' food chain sustainability and relationships with the EU, the SALSA project's objectives are consistent with the SiS Science and Ethics dimension objective of promoting research to underpin policies related to sustainable development and joint benefits as well as innovation policies to foster sustainable development.

### **Innovation Union**

The SALSA project aimed to increase the Latin American and EU food chains' social, environmental and economic sustainability, values that are central to many EU policies. In that respect, the project was consistent with the Innovation Union objective of leveraging our policies externally, as well as of getting good ideas stemming from innovation to market.

### **European Research Area (ERA)**

Through its Latin-American dimension, the SALSA project contributed to the ERA objective of promoting transnational co-operation and competition.

### **SaS Action Plan**

With the objectives of tackling the food chain sustainability in Latin-American countries, enhancing the food chain agents' relations in Latin America and the EU and promoting consumers and civil society's information in Latin America and the EU, the project was in line with Action 33 of the SaS Action Plan as it contributed to the development of international dialogue on ethical issues.

## **PROJECT RESULTS AND OUTCOMES**

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### **Project objectives**

- Concerning objective 1, the following actions were completed:
  - Define an improved LCA (Life Cycle Assessment) framework including environmental, economic, social and governance dimensions: semi-structured interviews with Latin American and EU soy and beef main business stakeholders as well as relevant actors in alternative chains were carried out.
  - Assess social, economic, ecological and institutional performance of selected Latin America-EU food chains: detailed interviews related to the preferences of LA-EU food chain stakeholders towards specific sustainability indicators were performed .
  - A quantitative analysis of the key factors influencing the business relationships in the beef/soy supply chains was conducted. An analytical framework was deployed to collect data on the representative soy and beef chains involving LA-EU relations. The sustainability performance of GM, non-GM and organic soy production systems were assessed and, when possible, also differentiated between smallholders and large companies.
  - Identify bottlenecks and improvement needs of the selected Latin America-EU food chains and provide indications: Semi-structured interviews with academic, non-governmental, governmental and business experts were carried out in order to support the results' interpretation in terms of defining hot spots, bottlenecks affecting the sustainability in the beef and soy chains, and provide improvement options to be tested. Great emphasis was put on the integration of the various sustainability indicators by using the method of multi-criteria assessment (MCA).
  - A literature review with respect to sustainability improvements in the supply chain was conducted on chain governance, quality management, including hazard based controls and certification schemes, logistics management and traceability.
  - Further insights on the current state of the art in the soy and beef chains in Latin America and Europe were collected. This was attained by participating in conferences, talking to relevant people in the industry, NGOs and reading specific reports. These insights, together with the results of previous analyses provided the framework and the contents for an excel database. A methodology to define improvement scenarios and options for the various soy and beef chains involved was implemented, a list of the most promising improvement options able to influence the performance of particular sustainability indicators was created and the impact of these actions on the chains sustainability performance was calculated. The most important results obtained were the definition of a first example of an integrated

impact assessment tool, involving not only the economic, social and environmental dimensions of sustainability, but also the governance one. Moreover the context-dependent nature of sustainability emerged as well as the consequent necessity to define carefully-tailored sustainability strategies and support policies.

- SME-oriented trainings were provided for mediators and SMEs in order to develop local capacities and to support the adoption of the tools developed within the project. In particular the first set of activities involved the setting up of an Industry Platform (IP) and the development of 7 training modules, with a theoretical and a practical dimension was completed.
- Concerning objectives 2 and 3, the normative database, which included trade regulations, provided agro-food producers with important information on how to access food export markets. Furthermore, a web-based platform was created and adapted to different countries' linguistic, cultural and business structural characteristics, with an e-network platform supporting information exchanges between LA and EU.
- Concerning objectives 4 and 5, a normative database was developed to systematize and select standards and trade regulations according to their specific sustainability performance and to provide additional information in the form of short descriptions and links relevant for soy and beef value chain. Additionally, factsheets of private standards were developed in collaboration with the International Trade Centre. The consortium assessed the non-business stakeholders' preferences and awareness on sustainability aspects of the soy and beef supply chains through an online survey. A desk survey was carried out considering studies on the demand and market situation of sustainably produced soy and beef as well as on consumers' perceptions, preferences and willingness to pay for certain aspects of sustainability, with a specific focus on environmental aspects. The constraints and necessities requiring attention when communicating on sustainability aspects to end users were also described. In order to gain insight into the preferences and attitudes towards sustainability aspects of the beef and soy supply chain, a consumer survey was carried out. Eventually the effectiveness of standards adoption and regulations in complying with sustainability and non-business stakeholders' preferences was assessed. After the standards selection, a quantitative and qualitative analysis of the standards' sustainability performance was conducted based on the very recently developed framework for Sustainability Assessments of Food and Agriculture systems (SAFA).

To conclude, it can be assessed that all planned objectives were reached.

#### **Main achievements according to SiS Dimensions**

The SALSA project notably enabled the provision of information to agro-food producers on how to access food export markets, as well as to identify bottlenecks and improvement needs in the EU-Latin American food chain sustainability and propose solutions. In that respect, the project's results fulfilled the SiS Science and Ethics dimension's objective of promoting research able to underpin policy related to sustainable development thus contributing to the alignment of research to ethical principles relating to sustainability.

#### **DISSEMINATION AND ENGAGEMENT ACTIVITIES AIMED AT TRANSFERRING THE PROJECT RESULTS TO WIDER COMMUNITIES**

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SALSA project included different ways of dissemination. SALSA Dissemination Activities related to 101 events and publications, which can be summarized as follows:

- 3 international publications peer reviewed;
- 4 papers in peer reviewed proceedings of international conferences;
- 1 non peer reviewed publication;
- 11 training courses;
- 6 webinars;
- 3 Seminars;
- 2 Organized Conferences;
- 12 workshops;
- 13 meetings;
- 12 web applications;
- 6 flyers;
- 2 videos;
- 22 presentations;
- 6 MSc and 1 BSc theses;

- 1 interview;
- 1 TV clip;
- 4 Posters;
- 5 newsletters;
- The project website, which is still active.

These activities cover a wide geographical as well as thematic range, ensuring a widespread dissemination of the relatively complex and specific issues.

It can be concluded that all dissemination activities planned in the DoW were achieved.

## PROJECT IMPACTS

### Potential impact

The project had the following expected impact:

- To contribute to addressing the environmental and economic challenges coming from climate change and pollution.
- To improve the sustainability of food overall by developing new sustainable technologies and regulatory frameworks to Latin American producers.
- To foster a safer and higher quality nutrients in animal products by boosting the use of soy produced with lower quantities of chemicals, soy being an important source of animal feed.

Potential impact can be further assessed through the following indicators:

- **Betweenness centrality:** out of the 12 project participants, 3 were among the 1% most central institutions participating in FP7, and 6 were among the 10% most central institutions.
- **Scientific attractiveness:** out of the 12 project participants, which gathered 5 universities, only one was mentioned in the Leiden university ranking, and ranked 251<sup>th</sup>.
- **Business attractiveness:** No project participants were ranked among the biggest R&D investors to have participated in SiS. This can notably be explained by the fact that participants were mainly made up of universities and research institutes.

### Actual impact

The project's actual impact can be clustered into the following categories:

- **Scientific impact:** only one publication related to the project could be found, and was cited thirty times in peer reviewed journals and articles. However, the project also had some scientific impact by establishing contacts with important sustainability research organisations like FAO, the Sustainability Consortium, the COSA consortium, people4earth or ENVIFOOD, to further improve research and knowledge exchange on these issues.
- **Social Media impacts:** between May 2011 and March 2016, only one post referring to the SALSA project could be found on social media, suggesting a non-existent impact through this specific channel.
- **Institutional and organisational impact:** the project did not result in the creation of institutions, bodies or networks.
- **Policy impact:** no policy impact could be identified.

## EU ADDED VALUE OF THE PROJECT

Due to its large scope, the purpose of the project required a regional scale. Furthermore, the implication of various European countries not only enabled to draw a European analysis but also to observe the different perceptions between the European countries. Indeed, the variety of actors enabled to perform interviews in different countries and consequently to be aware of the differences of visions and priorities among EU and Latin America.

## PARTICIPANTS AND RESEARCH TEAM

### Participants

Number of participants: 12

Number of countries involved: 9

Type	Country	Role	Previous participations in FP
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Stock-taking and meta-analysis of Science in Society projects throughout FP6 and FP7  
Final Case Studies

	Type	Country	Role	Previous participations in FP
ALMA MATER STUDIORUM-UNIVERSITA DI BOLOGNA	HES	IT	Coordinator	244
UNIVERSITEIT GENT	HES	BE	Participant	261
WAGENINGEN UNIVERSITY	HES	NL	Participant	253
UNIVERSIDAD NACIONAL AUTONOMA DE MEXICO	HES	MX	Participant	16
EMPRESA BRASILEIRA DE PESQUISA AGROPECUARIA EMBRAPA	REC	BR	Participant	16
CAMPDEN BRI MAGYARORSZAG NONPROFIT KORLATOLT FELELOSSEGU TARSASAG	REC	HU	Participant	12
FORSCHUNGSINSTITUT FUR BIOLOGISCHENLANDBAU STIFTUNG	REC	CH	Participant	23
UNIVERSIDADE FEDERAL DE VIÇOSA	HES	BR	Participant	4
PROQUANTIS LTD & CO KG	PRC	DE	Participant	1
BEROEPSVERENIGING VAN DE MENGVOEDERFABRIKANTEN VZW	OTH	BE	Participant	2
ROUND TABLE ON RESPONSIBLE SOY ASSOCIATION	OTH	CH	Participant	1
FUNDACION SOLIDARIDAD LATINOAMERICANA	OTH	PA	Participant	1

### Team Composition

Team Size: 45 members\*

GENDER				
Female		Male		Unknown
24%		64%		12%
SENIORITY				
Average		Junior		Senior
9%		27%		64%
PhD				
No			Yes	
60%			40%	
BACKGROUND				
Applied Sciences	Health Sciences	Humanities & Social Sciences	Natural Sciences	Unknown
16%	7%	40%	7%	31%

\*The data are based on the analysis of the provided project's Description of Work.

### DELIVERABLES AND PUBLICATIONS

#### Project deliverables

DELIVERABLE NO.	DELIVERABLE NAME	DUE DATE OF DELIVERY (month)	ACTUAL SUBMISSION DATE: (month)
D1.1	Minute of the Kick off meeting	2	4
D1.2	Minutes of the meeting month 12	13	13
D1.3	Minutes of the meeting month 24	25	25
D1.4	Minutes of the meeting month 36	36	36

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DELIVERABLE NO.	DELIVERABLE NAME	DUE DATE OF DELIVERY (month)	ACTUAL SUBMISSION DATE: (month)
D2.1	Data base on the normative framework	10	12
D2.2	Set of standards for access to LA and EU markets and scenarios of sustainability	12	14
D3.1	Improved LCA framework for performance assessment of LA-EU food chains	12	15
D3.2	Report on integrated performance assessment of Latin America-EU food chains and on improvement needs	17	22
D4.1	Report on survey and interviews with food industries stakeholders	20	22
D4.2	Report on improvement scenarios	28	No Date
D5.1	Web-based toolset and prototype communication portals for trade between LA-EU in sel. enterprises	18	19
D5.2	Online training toolset	18	19
D5.3	Implemented cluster networks with web-based toolset and communication portals	30	30
D6.1	Industry platform recommendations	6	8
D6.2	Report on developing tools for knowledge transfer and exchange	30	30
D6.3	Report on staff secondment and delivery of training	36	36
D6.4	Report on testing of integrated tools	36	36
D7.1	Web site first draft	1	4
D7.2	Web site final version	3	4
D7.3	Multilanguage Brochure 1	18	No Date
D7.4	Multilanguage Brochure 2	36	36
D7.5	Proceeding of Conferences	24	36
D7.6	Inventory of Successful Cases	22	No Date
D7.7	Report on results of educational oriented forum	31	31

**Related publications**

PUBLICATION TITLE	Number of citations
Modelling food logistics networks with emission considerations: The case of an international beef supply chain	30

**MAIN SOURCES**

SALSA Document of Work  
SALSA Final Report Summary  
SALSA

Website

**SURVEILLANCE, PRIVACY AND SECURITY: A LARGE SCALE PARTICIPATORY ASSESSMENT OF CRITERIA AND FACTORS DETERMINING ACCEPTABILITY AND ACCEPTANCE OF SECURITY TECHNOLOGIES IN EUROPE - "SURPRISE"**

Framework Programme: FP7  
Dimension: SCIENCE AND ETHICS  
Tool: Collaborative project  
Project Call For Proposal: FP7-SEC-2011-1  
Status: Closed  
Total cost: € 4,401,820.95  
Total EU funding: € 3,424,109.00  
Website: <http://surprise-project.eu/>  
Period: 01/02/2012 - 31/01/2015  
Subjects: Security – social Aspects  
Project ID and Acronym: 285492 – SURPRISE

**BACKGROUND AND CONTEXT OF THE PROJECT AND STRATEGIC NEEDS**

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Since the 2000s, the period has been characterised by dramatic changes in both objectives and means of security policies. These tendencies comprise political and societal developments of securitisation as well as technical progress in information technologies, creating unprecedented possibilities for mass data collection and surveillance.

**SPECIFIC PROJECT OBJECTIVES**

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**Project objectives:**

In this context, the SURPRISE project aimed to **re-examine the relationship between security and privacy**. This relation is commonly considered as a 'trade-off', and accordingly infringements of privacy are regarded as an acceptable or necessary cost of enhanced security. This common understanding of the security-privacy relationship, both at state and citizen levels, has informed and influenced policy makers, legislative developments and best practice guidelines concerning security developments across the EU. This led to a growing focus on pre-emption, proactive measures, and increasing surveillance capabilities.

SURPRISE has nine objectives. It will:

- Map key security challenges and related security policies and technologies;
- Identify factors influencing acceptability and acceptance of these security technologies;
- Identify technical design and legal/regulatory options and non-technical alternatives;
- Develop models and hypothesis about relations between these factors;
- Select two cases for empirical testing;
- Perform a large scale participatory, representative empirical testing of models;
- Synthesize empirical findings with theoretical models and practical options to design security solutions;
- Transform results into smaller scale participatory methods;
- Disseminate its findings widely throughout Europe and beyond.

**SaS Action Plan**

The project aimed at disseminating its findings related to ethical issues in security technologies throughout Europe and beyond by privileging a participatory approach. In this context, it can be assessed that the project helped developing international dialogue on ethical issues and was consistent with Action 33 of the SaS Action Plan. In addition, the work undertaken through the identification of design and development of models can be considered as contributing to Action 31 relating to the raising of researchers' awareness of ethical issues for future work.

**PROJECT RESULTS AND OUTCOMES**

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The SURPRISE project has:

- Identified a number of criteria influencing the acceptability of surveillance technologies;
- Reviewed and explored challenges and options for technological, legal, political and societal development on privacy and security;
- Organised Citizen Summits Events in nine European countries;
- Elaborated policy recommendations;

- Developed and tested the SURPRISE Decision Support System (DSS). The SURPRISE DSS was developed to guide the process and record the data of small-scale events (citizen meetings).

As confirmed in the Final Report, the project achieved all planned objectives.

### **Main achievements according to SiS Dimensions**

The aim of the project was to ensure the alignment of security and privacy and indeed of research and ethical principles.

The activities of the SURPRISE project enabled the development and test of the SURPRISE Decision Support System that guides the process and record the data of small-scale events. Thus, the project was deemed successful in contributing to the Science and Ethics dimension.

Beyond this, the project focused on specific topics related to the ethical implications of innovation in technology, such as the acceptability criteria in surveillance technologies.

Moreover, it can be assessed that the project fostered debates on ethics between civil society and researchers. In fact, about 200 citizens participated in a Citizens Summit Events in nine European countries and the information provided through debates and questionnaires was integrated in the elaboration of analysis. Furthermore, policy makers, NGOs, law enforcement and data protection authorities were involved in the recommendations' drafting.

### **DISSEMINATION AND ENGAGEMENT ACTIVITIES AIMED AT TRANSFERRING THE PROJECT RESULTS TO WIDER COMMUNITIES**

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In the SURPRISE project, dissemination activities comprised the following elements:

- Internet dissemination: SURPRISE website that remains active gives information about project objectives, methods and results. It also provides access to the public deliverables of the project and the information material to be used in education or other contexts;
- Two Communication Packages were used for presenting the process, methods and results of SURPRISE at conferences, seminars, workshops etc.
- Development of a contact list of potential interested receivers of communication;
- Organisation of stakeholder and user workshops after the first project year and close to the end of the project, giving opportunities for the potential users of the results to discuss approaches, results, conclusions and recommendations;
- Organisation of a final joint international conference with the PRISMS and PACT project for the dissemination to high level experts, stakeholders and policy makers;
- Active press context in order to attract attendance to the novelty of the research approach;
- Scientific publications and presentations of the methods and results of the project;
- Information to public and political target groups through the networks of the partners, including towards the STORA Panel (Science and Technology Policy Options Panel) of the European Parliament towards the members of the EPTA network (European Parliamentary Technology Assessment) and towards national security policy-makers inside EU;
- Interventions and presentations at high level meetings and policy relevant workshops.

On the basis of the collected documentation, it can be assessed that all planned dissemination activities as described in the WP7 of the DoW were implemented.

### **PROJECT IMPACTS**

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#### **Potential impact**

The SURPRISE project was designed to address the need for going beyond conventional studies which consider the relationship between privacy and security as a zero-sum game. Project partners considered that these studies not only fail to address the complexity of the relationship between privacy and security, they also neglect the social, institutional and cultural factors that influence this relationship and the variety of public responses to the implications of introducing new surveillance-oriented security technologies.

The project's potential impact can be further assessed through the following indicators:

- **Betweenness centrality:** Two participating organisations were amongst the most central FP7 participants.
- **Scientific attractiveness:** None SURPRISE project participant was ranked in the Leiden University ranking.
- **Business attractiveness:** The SURPRISE project had no participant ranked as one of the biggest R&D investors amongst SiS participants.



## Actual impact

Beyond expectations, the actual impacts can be classified into the following:

- **Scientific impact:** the implementation of the SURPRISE project enabled to develop an empirical model, which identifies and combines relevant factors related to acceptance and acceptability of SOSTs, and tested it with the most advanced techniques of participatory data-gathering. In addition, the project led to the submission of one publication. All that outputs enabled a development of the knowledge related to the relation between privacy and security and suggests therefore a positive impact from a scientific point of view;
- **Organisational and institutional impact:** the SURPRISE project provides a concrete framework to evaluate security and technologies in context. It could have therefore imply organisation and institutional impact however no data can be found.
- **Policy impact:** the project elaborated a socially and scientifically robust decision support system, which can assist all kind of users like policy experts and policy makers. This system is designed to understand, analyse and evaluate any single security option – technological or not – from different angles. Nevertheless, no information are provided whether it has been used by policy makers.
- **Social media impact:** Project coordinator specified to EY team that communication through Twitter and Facebook was implemented. Between February 2012 and April 2016, six posts were recorded, suggesting therefore a weak social media impact.

## EU ADDED VALUE OF THE PROJECT

At this stage, project partners did not specify in their deliverables any information regarding the EU added value on the project however added value seems to be apparent. In the area of security of privacy, at least cooperation is needed between the different European member states or as specified by project partners in the final report, a common policy should be developed and rules should be uniformly applied and enforced throughout the European Union and the Schengen area. Accordingly, the project is implemented by 12 participants coming from 9 different European member states enabling therefore to cover different local contexts.

## PARTICIPANTS AND RESEARCH TEAM

### Participants

Number of participants: 11

Number of countries involved: 9

	Type	Country	Role	Previous participations to FP
OESTERREICHISCHE AKADEMIE DER WISSENSCHAFTEN – AUSTRIAN ACADEMY OF SCIENCES	REC	AT	Coordinator	70
AGENCIA ESTATAL CONSEJO SUPERIOR DE INVESTIGACIONES CIENTIFICAS	REC	ES	Participant	701
THE OPEN UNIVERSITY	HES	GB	Participant	80
EUROPEAN UNIVERSITY INSTITUTE	HES	IT	Participant	71
UNABHAENGIGES LANDESZENTRUM FUER DATENSCHUTZ	PUB	DE	Participant	6
AGENCIA DE PROTECCION DE DATOS DE LA COMUNIDAD DE MADRID	PUB	ES	Participant	1
Fonden Teknologirådet	REC	DK	Participant	16
VEREIN FUR RECHTS-UND KRIMINALSOZIOLOGIE	REC	AT	Participant	6
MEDIAN OPINION AND MARKET RESEARCH LIMITED COMPANY	PRC	HU	Participant	2
TEKNOLOGIRADET - THE NORWEGIAN BOARD OF TECHNOLOGY	PUB	NO	Participant	3
AKADEMIEN DER WISSENSCHAFTEN SCHWEIZ VEREIN	OTH	CH	Participant	2

### Team Composition

Team Size: members\*

GENDER		
Female	Male	Unknown

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42%	58%	0		
SENIORITY				
Average	Junior	Senior		
10%	13%	77%		
PhD				
No	Yes			
68%	32%			
BACKGROUND				
Applied Sciences	Health Sciences	Humanities & Social Sciences	Natural Sciences	Unknown
19,35%	3%	77%	0%	0%

\*The data are based on the analysis of the provided project's Description of Work.

### DELIVERABLES AND PUBLICATIONS

DELIVERABLE NO.	DELIVERABLE NAME	DUE DATE OF DELIVERY (month)	ACTUAL SUBMISSION DATE: (month)
D1.1	Project handbook	4	4
D1.2	Plan for involving users and stakeholders	6	8
D1.3	Method description citizen consultations	19	22
D1.4	Method description decision support test cases	25	28
D1.5	Report on security classification	18	18
D1.6	Final report on security classification	36	36
D1.7	Design workshop	2	2
D2.1	Draft Key pairs of security challenges and responses	3	5
D2.2	Draft report on key factors	12	13
D2.3	Key pairs of security challenges	13	17
D2.4	Key factors affecting public acceptance and acceptability	33	36
D3.1	Report on surveillance technology and privacy enhancing design	12	17
D3.2	Report on regulatory frameworks concerning privacy and evolution of the norm to privacy	12	17
D3.3	Report on security enhancing options that are not based on surveillance technologies	12	17
D3.4	Synthesis paper on comprehensive security enhancing policy options	14	17
D4.1	List of hypotheses	16	16
D4.2	Questionnaire	17	18
D4.3	Information material and documentary films	19	20
D5.1	Training material for project managements on execution of the citizen meetings	20	22
D5.2	Training workshop	21	22
D5.3	Citizen consultation raw data files	25	27
D5.4	Citizen consultation group interview reports	27	29
D6.1	Country report Austria	29	33
D6.2	Country report Denmark	29	35
D6.3	Country report Germany	29	32
D6.4	Country report Hungary	29	32
D6.5	Country report Italy	29	33
D6.6	Country report Norway	29	32
D6.7	Country report Spain	29	33
D6.8	Country report Switzerland	29	33
D6.9	Country report United Kingdom	29	32
D6.10	Synthesis report	31	36
D6.11	Draft policy paper for manuals for decision support	32	35
D6.12	Workshop report	33	35
D6.13	Final policy papers and manuals	36	37
D7.1	Report on decision support testing	31	33

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DELIVERABLE NO.	DELIVERABLE NAME	DUE DATE OF DELIVERY (month)	ACTUAL SUBMISSION DATE: (month)
D7.2	Comparative report	33	35
D8.1	Project website	6	6
D8.2	Target group list	4	10
D8.3	Information and communication package 1	4	5
D8.4	International conference report	34	35
D8.5	Final plan for using the knowledge	35	36
D8.6	Information and communication package 2	36	37
D9.1	SURPRISE mid-term report	18	21
D9.2	SURPRISE final report	36	38

Publications no.	PUBLICATION	LINK (when available)
	Michael Fridewald (2014), Project's final conference 2014. Proceedings. Abstract booklet: citizens' perspective on surveillance, security and privacy. Controversies, Alternatives and Solutions; Joint Conference on SurPRISE, PRIMS and PACTS.	<a href="http://publica.fraunhofer.de/documents/N-316142.html">http://publica.fraunhofer.de/documents/N-316142.html</a>

### MAIN SOURCES

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**The main sources of information for the fiche include:**

eCORDA;  
CORDIS database;  
OPENAIRE database;  
SURPRISE CONSORTIUM (2011), Description of Work – Annex 1  
SURPRISE CONSORTIUM (2015), Final report

## **PUBLIC PERCEPTION OF SECURITY AND PRIVACY: ASSESSING KNOWLEDGE, COLLECTING EVIDENCE, TRANSLATING RESEARCH INTO ACTION - "PACT"**

**Framework Programme: FP7 related to SIS**

**Action line/Part: -**

**Activity: -**

**Area: -**

**Dimension:**

**Tool: Science and Ethics**

**Project Call For Proposal: FP7-SEC-2011-1**

**Status: Closed**

**Total cost: € 3 228 906.53**

**Total EU funding: € 2 675 107.85**

**Website: <http://www.projectpact.eu/>**

**Period: 01/02/2012 - 31/01/2015**

**Subjects: Security - Social Aspects**

**Project ID and Acronym: ID: 285635, Acronym: PACT**

### **BACKGROUND AND CONTEXT OF THE PROJECT AND STRATEGIC NEEDS**

Mainstream sociological and security literature tends to assume that people evaluate the introduction of security technologies in terms of a trade-off between privacy and security. Risk perception entails two different, and quite divergent, categories of concerns: privacy and liberty concerns, and security concerns. The ways in which these two categories of concerns interact and reach an equilibrium is strongly influenced by the degree of trustworthiness of the institutions and agencies responsible for security governance. Trust depends on a series of factors, including effective risk communication, as well as transparent and fair operational procedures or citizens' involvement in decision making. As a consequence, assessing the pros and cons of specific security investments with regard to the wider societal context, and including the main values that compete in structuring the public's specific policy preferences, appears as particularly intricate process.

### **SPECIFIC PROJECT OBJECTIVES**

#### **Project objectives**

The main objective of the PACT project was to assist users and policymakers in considering privacy and fundamental rights when they evaluate pros and cons of specific security investments. This strategic goal was specified through three specific objectives:

- To produce a root and branch review of the public perception of privacy and security answering the following questions: Do people actually evaluate the introduction of new security technologies in terms of trade-off between privacy and security? What are the main factors that affect public assessment of the security and privacy implications of given security technologies?
- To gather and analyse data across Europe in order to generate both national and comparative outcomes;
- To establish a new privacy and security reference framework and a decision support system in order to provide users with insight into the pros and cons of specific security investments compared to a set of alternatives taking into account a wider societal context.

#### **SiS Dimension**

One of the main objectives of the Science and Ethics dimension of FP7 is to better explore the relationship between ethics, law and science for newly emerging science and technology areas. Furthermore, one of the specific focus of this dimension is privacy as an ethical issue. Since PACT's main objective was to help policymakers in considering privacy and fundamental rights when they evaluate security investments - including new security technologies - the project was fully in line with the Science and Ethics dimension's goals.

#### **Innovation Union objectives**

Through its ambition of gathering data across Europe and producing a review of the public perception of privacy and security, the PACT project aimed to strengthen the knowledge base and reduce fragmentation in Europe, which is one of the Innovative Union objectives.

#### **European Research Area (ERA) objectives**

As the project consortium planned to gather and analyse data from all over Europe in order to generate both national and comparative outcomes, the PACT project was in line with the ERA objective of enhancing EU international cooperation in research and innovation.

### **SaS Action Plan**

The project had the ambition of providing policy makers and users with a new privacy and security reference framework and a decision support system. An investigation of the public perception of privacy and security and a comparative overview of national and European situations were also carried out. The project was therefore consistent with Action 29 of the SaS Action Plan that targets the setting up of information and documentation observatory for ethical issues.

### **PROJECT RESULTS AND OUTCOMES**

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#### **Project objectives**

The PACT project achieved the following outputs:

- Concerning **objective 1**, the consortium produced a baseline study that provided an analysis of the privacy-security debate, an up-to-date taxonomy of security technologies and a mapping of relevant stakeholder categories. Six relevant Use Cases were also proposed and three of them were translated into survey scenarios;
- Concerning **objective 2**, a survey about EU citizens' perceptions of privacy and security was carried out in 27 EU member states (all the European countries but Croatia who was not a member of the EU at the time) and interviewed about 27 000 citizens through an online and a face-to-face methodology. The survey implemented a Stated Preference Discrete Choice Experiments approach (SPDCE) which enabled the consortium to move away from the "trade-off model" of privacy and security, whose validity was questioned in PACT's root and branch review. The survey included three scenarios based on internet service providers and surveillance, the use of CCTV in metro/train stations, and health record data;
- Concerning **objective 3**, results from theoretical work and empirical research fed into the development of a new conceptual Privacy Reference Framework for Security Technology (PRFST) and the design of the PACT Decision Support System (DSS). The PRFST informed the DSS about the implications on privacy issues of security technologies. The PACT DSS was empowered by a model quantifying relevant parameters for a given security risk, including trust, privacy and data protection, civil liberty, perceived risks and other security concerns. The model could adapt the parameters to the situation, time and area of application while it took into account the internal cultural and national boundaries. PACT DSS also provided forecasts for a given security technology investment in terms of wider social acceptance, concerns and reactions. Finally, the consortium carried out both a socio-economic impact study and a political impact study in order to analyse the DSS expected impact.

On the basis of the collected documentation, it can be assessed that all planned objectives were achieved.

#### **Main achievements according to SiS Dimensions**

The PACT project was fully in line with the objectives of the Science and Ethics dimension of FP7 since it devised an ethical framework for security technology and a decision support system in order to integrate better ethical issues as privacy and fundamental rights in security investment decisions. In that respect, it helped build a better relationship between ethics, law and science for newly emerging science and technology areas, as was foreseen in the objectives of the Science and Ethics dimension of FP7.

### **DISSEMINATION AND ENGAGEMENT ACTIVITIES AIMED AT TRANSFERRING THE PROJECT RESULTS TO WIDER COMMUNITIES**

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The following dissemination activities were carried out in order to transfer the project results to wider communities:

- 3 advisory panels were kept updated on the project's activities through regular meetings: the Stakeholder Advisory Group (SAG), the High Level Policy Panel (HLPP) and the Privacy Advocacy Panel (PAP);
- 3 conferences and seminars were carried out: the project Launching conference at the European Parliament, an internal seminar on "Media communication, security and privacy" in Italy and a Joint International conference with the other two EU projects funded under the same theme : PRISMS and SurPRISE, in Austria;
- The project website and the press centre, where 12 working papers were and are still available;
- Dissemination material such as the project logo and brochure and 3 newsletters were produced;
- 30 scientific publications were produced;
- 54 academic talks were organised;
- A final report summary was published;

In conclusion, it seems that all planned dissemination activities were implemented.

## PROJECT IMPACTS

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### Potential impact

The main potential impacts planned by the consortium were:

- To allow citizens, policy makers, scholars and other stakeholders to better understand questions of privacy, surveillance and security in order to help increase public awareness about the relationship between privacy and security;
- To ensure optimal and concerted use of available and evolving technologies for the benefit of civil European security thanks to the Privacy Reference Framework;
- To enhance public awareness about human rights and privacy issues in Europe;
- To address the opacity of security technologies regarding their implications on privacy issues in order to fuel the public's perception of security technologies;
- To strengthen mechanisms of trust towards well planned and clear security policies;
- To develop a more insightful technology acceptance stance by making people interact with the DSS.

Potential impacts can be further assessed through the following indicators:

- **Betweenness centrality:** Four institutions out of the thirteen participating in the project were in the top 1% most central institutions in FP7. Eight were in the top 5% and eleven in the top 10%;
- **Scientific attractiveness:** Among the thirteen institutions involved in the PACT project, none appeared in the Leiden university ranking;
- **Business attractiveness:** No participants from PACT were ranked amongst the biggest R&D investors having participated in SiS. This can notably be explained by the fact that participants were mainly universities and research institutes.

### Actual impact

The actual impact of the project can be clustered into four types:

- **Scientific impact:** At least two publications were released: Implications of Deep Packet Inspection (DPI) Internet Surveillance for Society, which was cited 22 times in other scientific publications, and Citizens' Perspective on Surveillance, Security and Privacy. Controversies, Alternatives and Solutions. According to the PACT final report, the project resulted in 30 scientific publications, suggesting a high scientific impact;
- **Social Media impacts:** between 2012 and 2016, 25 posts were found referring to the PACT project, suggesting a rather limited social media visibility and impact;
- **Institutional and organisational impact:** The project did not result in the creation of institutions, bodies or networks;
- **Policy impact:** since PACT resulted in the production of the Privacy Reference Framework for Security Technology and in the creation of the DSS, a non-abstract hands-on tool assisting policymakers in assessing better security investments, the project can be considered to have some level of influence over the policy debate about the interaction between security and privacy at both European and national levels.

## BEST PRACTICES

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A good practice was identified, with a Joint International conference with the other two EU projects funded under the same theme (PRISMS and SurPRISE) was organised. Potential impacts of such a coordination with the PRISMS project were mentioned in the 1<sup>st</sup> Communication and Dissemination Report: "this is a good opportunity to improve results while keeping costs lower, provided that one avoid duplication; hence the need for coordination among the two projects". Positive impacts in terms of networking were also identified.

## EU ADDED VALUE OF THE PROJECT

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The European dimension of the project enabled the consortium to devise a pan-European survey with about 27 000 citizens interviewed from 27 member states. Furthermore, the broad range of European experts gathered in the project was likely to have enriched the reflection and the analysis of the security-privacy debate.

## PARTICIPANTS AND RESEARCH TEAM

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### Participants

Number of participants: 13

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Number of countries involved: 9

	Type	Country	Role	Previous participations in FP
ATOS SPAIN SA	PRC	ES	Participant	141
CENTER FOR SECURITY STUDIES	REC	GR	Participant	32
CENTRE FOR IRISH AND EUROPEAN SECURITY LIMITED	PRC	IE	Participant	7
CENTRE FOR SCIENCE, SOCIETY AND CITIZENSHIP	PRC	IT	Participant	20
INSTITUTT FOR FREDSFORSKNING STIFTELSE	REC	NO	Participant	23
MARKET & OPINION RESEARCH INTERNATIONAL LIMITED	PRC	GB	Participant	2
MINISTRY OF PUBLIC SECURITY	PUB	IL	Participant	8
NATIONAL CENTER FOR SCIENTIFIC RESEARCH "DEMOKRITOS"	REC	GR	Participant	132
RAND EUROPE COMMUNITY INTEREST COMPANY	REC	GB	Participant	9
THE HEBREW UNIVERSITY OF JERUSALEM	HES	IL	Participant	254
THE UNIVERSITY OF WESTMINSTER LBG	HES	GB	Participant	24
UPPSALA UNIVERSITET	HES	SE	Participant	253
VITAMIB SAS	PRC	FR	Coordinator	9

### Team Composition

Team Size: 28 members\*

GENDER				
Female		Male		Unknown
14%		86%		0%
SENIORITY				
Average		Junior		Senior
18%		7%		75%
PhD				
No			Yes	
50%			50%	
BACKGROUND				
Applied Sciences	Health Sciences	Humanities & Social Sciences	Natural Sciences	Unknown
0%	4%	68%	4%	7%

\*The data are based on the analysis of the provided project's Description of Work.

## DELIVERABLES AND PUBLICATIONS

### Project deliverables

DELIVERABLE NO.	DELIVERABLE NAME	DUE DATE OF DELIVERY (month)	ACTUAL SUBMISSION DATE: (month)
D1.1	Report on current theoretical framework and previous empirical research	4	4
D1.2	Report on the review of DSS for decision making on security issues	4	5
D1.3	Report on technology taxonomy and mapping	4	4
D1.4	Social Impact Report	4	5
D1.5	Stakeholder Map and Interview	3	5
D1.6	Use case definition Report	7	7
D1.7	WP1 Scientific Meeting Report	8	8

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DELIVERABLE NO.	DELIVERABLE NAME	DUE DATE OF DELIVERY (month)	ACTUAL SUBMISSION DATE: (month)
D2.1	Methodological Workshop Report	9	9 (draft), 10 (final)
D2.2	Survey Questionnaire	10	15
D2.3	Report on the analysis of pilot data	13	17
D3.1	Summary of findings from the survey testing phase	12	17
D3.2	Sampling Report	14	17
D3.3	Survey Report and Data Files	20	23
D3.4	Report on Liaison Activities with the PRISM Study	24	36
D4.1	Headline Findings	21	25
D4.2	Survey Report	24	29
D5.1	Report on the Definition and Design of the PRFST	20	21
D5.2	PACT PRFST	26	30
D5.3	Validation Report	29	36
D6.1	SS Architecture Technical Specifications and Validation Criteria	23	33
D6.2	DSS Functional Specifications	25	36
D6.3	DSS system and full SPSS Dataset	34	36
D6.4	Validation and User Evaluation	34	37
D7.1	1 <sup>st</sup> communication and dissemination report	19	20
D7.2	2 <sup>nd</sup> communication and dissemination report	36	38
D7.3	1 <sup>st</sup> networking activity report	19	20
D7.4	2 <sup>nd</sup> networking activity report	36	38
D7.5	Updated plan for use and dissemination of foreground	36	37
D8.1	First Reporting Period Reports	20	21
D8.2	Second Reporting Period Reports	36	39

**Related publications**

PUBLICATION TITLE	Number of citations
<i>Implications of Deep Packet Inspection (DPI) Internet Surveillance for Society Project's Final Conference 2014. Proceedings: Deliverable 12.3; Abstract Booklet, Citizens' Perspective on Surveillance, Security and Privacy. Controversies, Alternatives and Solutions; Joint Conference on SurPRISE, PRISMS and PACT</i>	22
	0

**MAIN SOURCES**

PACT Description of Work  
PACT Result In Brief  
PACT Final Report Summary  
PACT Website  
1<sup>st</sup> Communication and Dissemination Report



## Science Literacy: Science and Society

## **SKY WATCH, INTRODUCING EUROPEAN YOUTH IN THE WORLD OF SCIENTIFIC RESEARCH THROUGH INTERACTIVE UTILISATION OF A GLOBAL NETWORK OF ROBOTIC TELESCOPES - "SKYWATCH"**

**Framework Programme: FP6**  
**Action line/Part: PART C: STEPPING UP THE SCIENCE/SOCIETY DIALOGUE AND WOMEN IN SCIENCE**  
**Activity: 4.3.4 Scientific and technological culture, young people, science education and careers**  
**Area: 4.3.4.1 Promoting science and scientific culture**  
**Dimension: SCIENCE LITERACY**  
**Tool: Specific Support Action**  
**Project Call For Proposal: FP6-2003-SCIENCE-AND-SOCIETY-7**  
**Status: Closed**  
**Total cost: € 495 040.00**  
**Total EU funding: € 495 040.00**  
**Website: Website no longer available**  
**Period: 01/02/2005 - 31/01/2006**  
**Subjects: Scientific Research – Social Aspects**  
**Project ID and Acronym: ID: 13609, ACRONYM: SKYWATCH**

### **BACKGROUND AND CONTEXT OF THE PROJECT AND STRATEGIC NEEDS**

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Raising public awareness for scientific activities and technological developments can be facilitated by presenting science and scientific research through challenging 'games' which combine intelligence, existing knowledge and innovation. This is because the motivation of the general public to actively take part in understanding the beneficial (and sometimes non-beneficial) impact of science and technology on their daily life is a crucial factor in raising interest about soft and hard sciences.

### **SPECIFIC PROJECT OBJECTIVES**

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The SKYWATCH project aimed at **building a virtual community of youngsters interested in science**, young or perspective researchers, based on an internet website, at **the EUDOXOS platform**, which permit students to access to remotely robotic telescopes in real time. In particular, the consortium aimed at fostering the design, development and implementation of scientific projects connected to the use of the platform, by organizing a contest for European pupils, students and young researchers; and taking care of the organisation of a number of Public Science days open to youngsters and the general public.

#### **SaS/SiS Programme objectives/Activity Lines**

The project's goals were in line with the Part C of the Call, SaS-2003-7, whose objectives are to increase public awareness of scientific and technological advances, to promote young people's interest in science, encouraging critical and creative ways of thinking, and to improve science education and the uptake of scientific careers. Open Science Days were expected to promote scientific culture among young generations and laypeople in general, providing them with the possibility of accessing to innovative technology in the field of astronomy, robotics and information technology. Furthermore, the contest could foster the youngsters to cultivate interest toward science and technology and indirectly take up scientific high education and careers in the future. The project's goal was also to implement part of the outreach activities during the European Science Week 2005, adding value to the event and promoting it among its networks.

#### **SaS Action Plan**

Different Actions within SaS Action Plan overarch the objectives of the project, including Action 4 (Examine potential of internet and television for publicising science), 7 (Network scientific events throughout Europe, e.g. Science Weeks and other events), 8 (Raise public awareness of the European dimension of research through European Science Weeks), and 16 (Promote more attractive methods for science education in schools).

### **PROJECT RESULTS AND OUTCOMES**

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Project results according to the project objectives

The project successfully participated within the activities of the European Science Week 2005 with several events and a contest of students and young researchers. Main results and outcomes were:

- The **SkyWatch web platform**, functioning as an educational and tutoring environment, where laypeople could get information on the project and the contestants could be assisted during the whole duration of the contest; the portal has been visited by 4,200 users from 53 countries in the 12 months of lifetime of the project;

- The **Skywatch contest**, attracting 250 individuals divided in 95 teams; eventually 53 projects have been submitted and 11 of them have been awarded: 3 projects in the '<15' category, 6 projects in the '15<x<18' category and 2 in the 'adults' category; awarded projects regarded sun rotation, birth and death of stars, asteroids, quasar, among other topics;
- 24 **Contest Science Days**, convened in Greece, in the UK and Bulgaria, were designed in order to engage laypeople, youngsters and schools in particular, with science and astronomical quest, but also as a means to inform the public about the SkyWatch contest and to advertise its related events; a total of over 2,000 people attended the meetings;
- The arrangement of **interactive popular science courses** online, with quizzes and explanatory parts, accessible from the SkyWatch web platform; topics were relevant to those chosen within the SkyWatch contest and they were divided according to the degree of difficulty.

Progress of each WP including deliverables and associated milestones were regularly submitted to the Commission. Minor delays were registered in the implementation of the contest, due to the number of project submitted but this did not cause further procrastination of deliverables. In comparison with the initial work plan, however, a number of corrections have been undertaken, such as the withdrawal of the connection with the Eudoxos platform, replaced by the Liverpool telescope. This caused a diminution of the number of telescope resources at disposal, but did not affect the regular development of the contest and other project activities. Furthermore, the on-line courses were not interactive, as they were designed as Power point presentations. Ultimately, the goal of engaging 10,000 secondary school students of 28 European Countries, 1,000 university students, 50,000 visitors of science centres, parks and museums and 5.000 visitors (mainly school students) of the central exhibition was only partially achieved. Results regarding the exploitation of a Virtual Community of young people through the web platform, the ultimate project objective, were not included in the reports.

#### **Main achievements according to Programme objectives**

With the participation of the project in the events of the European Science Week 2005, it successfully achieved one goal, as stated in the FP6-2003-SaS-7 Call, Part C. The format of the contest among youngsters, chosen by the Consortium, was interactive in scope. The expected impact of enhancing interest in scientific culture, education and careers among young people is compatible with achieved results.

#### **Main achievements according to SaS Dimensions**

The SKYWATCH project was relevant for the SaS Science Literacy dimension. The project organised a contest for youngsters in the field of astronomy, therefore choosing a participatory model for its activities. Participation and interaction with laypeople was also implemented in some of the Science Days, when active engagement of attendees was required. Informal education was recognized as a fundamental feature in enhancing youngsters' engagement with science and technology.

#### **DISSEMINATION AND ENGAGEMENT ACTIVITIES AIMED AT TRANSFERRING THE PROJECT RESULTS TO WIDER COMMUNITIES**

The Consortium launched at the very outset of the project a web platform, which was updated during the period of life of the project with news, online courses, quizzes and information on the project results. The dissemination activities were implemented during the 12 months of lifetime of the project according to the initial plan, even though the broad traditional media coverage was not eventually reported in the dedicated deliverables. The activities implemented by the Consortium for the public outreach of the project can be divided into three groups:

- **Networking:** partners sent information on the project and the contest via e-mail to Greek Ministry of Education, to local secondary schools in Greece, over 500 science teachers and several headmasters of schools in UK, to Universities and Astronomical Societies in UK, to addressees of existing partners' networks, etcetera;
- **Publicity:** circulation of posters and leaflets in the involved countries, 1,500 copies of the project's brochure were printed and distributed; promotion of the project was undertaken in Consortium's partners' webpages and in related websites; furthermore, SkyWatch was advertised in related events, such as the 1<sup>st</sup> Teachers' Workshop of CONNECT, in Athens, the eLearning Conference 2005 in Brussels, among others; press releases were reported in journals addressing relevant stakeholders, such as schools, science teachers and the general public;
- **Publications:** a number of articles were uploaded to related websites; a scientific article was also accepted for publication.

#### **PROJECT IMPACTS**

The impact of SKYWATCH project was expected to be significant for the **promotion of scientific culture Europe-wide**. In particular, a very high number of contestants and visitors was expected, along with a very high number of organisations was to be engaged in joint activities and the creation of a long-lasting virtual community of young,

perspective and future researchers and science amateurs was considered as the main legacy of the project. The three academic institutions included in the Consortium showed a high centrality in SaS (two of them among the top 1%, and one among the top 5%); among them, Stockholm Universitet was also positioned in the top 200 institutions of the Leiden Ranking.

The SKYWATCH project **actual impacts** can be classified into:

- **Scientific impact:** As reported in the last table of this document, one article related to the project has been published. That suggests a rather positive effect of the project from the scientific point of view, in light of the consideration that the average number of scientific outputs of SaS is 0,5 publication per project.
- **Social media impacts:** There has been no relevant social impact in terms of social media listening buzz results.

Furthermore, the project successfully linked with other projects within the 6<sup>th</sup> Framework Programme, such as D-SPACE<sup>74</sup> and PENCIL<sup>75</sup> projects. Thanks to the collaboration with these two networks, a second and a third edition of the SkyWatch contest were implemented (SkyWatch contest 2006 and SkyWatch Contest 2007).

### EU ADDED VALUE OF THE PROJECT

The Consortium stated that the European added value of the project is relevant in three ways: firstly, because no single country in Europe has the potential, in terms of finance and the capacity, of taking actions to raise awareness and promote the scientific culture among laypeople across Europe; secondly, being education a key point in sustaining European society, activities engaging young people with science have to be undertaken by Europe as a whole; thirdly, because the participation of the project in the framework programme gave it the possibility to link with other projects, create new capacities and ultimately multiply its impact.

### PARTICIPANTS AND RESEARCH TEAM

#### Participants

Number of participants: 8

Number of countries involved: 5

	Type	Country	Role	Previous participations to FP
INTERNATIONAL ENVIRONMENT AND QUALITY SERVICES S.A.	OTH	GR	Coordinator	5
UNIVERSITAT DUISBURG-ESSEN	HES	DE	Participant	18
STOCKHOLMS UNIVERSITET	HES	SE	Participant	1
SCIENCE PROJECTS	OTH	GB	Participant	1
LIVERPOOL JOHN MOORES UNIVERSITY	HES	GB	Participant	1
EUROPEAN PHYSICAL SOCIETY ASSOCIATION	OTH	FR	Participant	5
EUROPEAN DISTANCE AND E-LEARNING NETWORK	OTH	GB	Participant	2
ELLINOGERMANIKI AGOGI S.A.	OTH	GR	Participant	2

#### Team Composition

Team Size: members\*

GENDER		
Female	Male	Unknown
15%	80%	5%
SENIORITY		
Average	Junior	Senior
20%	15%	65%

<sup>74</sup> D-SPACE was a project funded within the framework of the eTEN Programme eLearning Action of the Sixth Framework Programme, and aimed at offering students and laypeople online access to the network of robotic telescopes.

<sup>75</sup> PENCIL was a project funded within the Sixth Framework Programme, Science and Society, grant agreement n° 511165. It aimed at coordinating actions in order to find ways for science centres and museums to co-operate with schools to improve the quality of science-teaching methods.

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PhD				
No		Yes		
25%		75%		
BACKGROUND				
Applied Sciences	Health Sciences	Humanities & Social Sciences	Natural Sciences	Unknown
0%	0%	55%	30%	0%

\*The data are based on the analysis of the provided project's Description of Work.

### DELIVERABLES AND PUBLICATIONS

DELIVERABLE NO.	DELIVERABLE NAME	DUE DATE OF DELIVERY (month)	ACTUAL SUBMISSION DATE: (month)
D1	Three internal reports (management and financial)	1,6,12	1,4,9
D2	External reports (management and financial) to the Commission	6,12	12
D3	A complete list of the developed scientific topics (Scenarios for formal and informal learning settings)	3	3
D4	Contest package (contest guides, evaluation guidelines, rules of participation etc.)	3	3
D5	Supportive material per scenario	3	3
D6	Electronic newsletters for contest participants	3	6,10
D7	SKY WATCH portal	4	4
D8	Interactive courses	4	4
D9	Information targets	2	2
D10	Organisational master plan of the Information and Communication Programme	3	3
D11	Project's publicity and communication campaign	12	12
D12	Contingency plans	4	4
D13	List of evaluation and selection standards	4	4
D14	List of selected projects	9	9
D15	Detailed information dossier for the 30 selected projects	10	10
D16	Contest science days	10	10
D17	Supportive course material	9	9
D18	Interactive Popular Science Courses (for the Science Days)	11	9
D19	Public Science Days	12	12
D20	Contest awards and exhibition	12	12
D21	List of final results (winners)	12	12
D22	Final report of the SKY WATCH project	12	12

Publications no.	PUBLICATION	LINK (when available)
	Sotiriou, M., Vrazopoulos, H., Ioannou, P., (Q-Plan S.A.), Sotiriou, S., Vagenas, E., (Ellinogermaniki Agogi) (2005) "Benefits to the teacher's development from the utilization of a global network of robotic telescopes - Skywatch Project". In Kastis, N. (ed.). EDEN FIFTH OPEN CLASSROOM CONFERENCE, Teachers' Professional Development. Conference Book, pp. 150-156.	<a href="http://www.eden-online.org/wp-content/uploads/2016/05/OCLR_2005_Poitiers_Proceedings.pdf">www.eden-online.org/wp-content/uploads/2016/05/OCLR_2005_Poitiers_Proceedings.pdf</a>

### MAIN SOURCES

- SKYWATCH Consortium (2004). Description of Work. Annex I.  
 SKYWATCH Consortium (2005). First internal report.  
 SKYWATCH Consortium (2005). Second internal report.  
 SKYWATCH Consortium (2005). Third internal report.  
 SKYWATCH Consortium (2006). Second Periodic report (management) to the Commission  
 SKYWATCH Consortium (2005). A complete list of the developed scientific topics (Scenarios for formal and informal learning settings)  
 SKYWATCH Consortium (2005). Contest package (contest guides, evaluation guidelines, rules of participation etc.)  
 SKYWATCH Consortium (2005). Supportive material per scenario  
 SKYWATCH Consortium (2005). Electronic newsletters for contest participants

SKYWATCH Consortium (2005). SKY WATCH portal  
SKYWATCH Consortium (2005). Interactive courses  
SKYWATCH Consortium (2005). Information targets  
SKYWATCH Consortium (2005). Organisational master plan of the Information and Communication Programme  
SKYWATCH Consortium (2005). Contingency plans  
SKYWATCH Consortium (2005). List of evaluation and selection standards  
SKYWATCH Consortium (2005). List of selected projects  
SKYWATCH Consortium (2005). Detailed information dossier for the 30 selected projects  
SKYWATCH Consortium (2005). Contest science days  
SKYWATCH Consortium (2005). Supportive course material  
SKYWATCH Consortium (2005). Interactive Popular Science Courses (for the Science Days)  
SKYWATCH Consortium (2006). Project's publicity and communication campaign  
SKYWATCH Consortium (2006). Public Science Days  
SKYWATCH Consortium (2006). Contest awards and exhibition  
SKYWATCH Consortium (2006). List of final results (winners)  
SKYWATCH Consortium (2006). Final report of the SKY WATCH project  
SKYWATCH Consortium (2006). Final Activity report.  
[www.xplora.org/ww/en/pub/events/calendar/skywatch\\_2006\\_astronomy\\_contes.htm](http://www.xplora.org/ww/en/pub/events/calendar/skywatch_2006_astronomy_contes.htm)  
[www.xplora.org/ww/en/pub/xplora/news/latestnews/skywatch2007.htm](http://www.xplora.org/ww/en/pub/xplora/news/latestnews/skywatch2007.htm)

## **PLAY WITH WATER: INTRODUCING ECOLOGICAL ENGINEERING TO PRIMARY SCHOOLS TO INCREASE INTEREST AND UNDERSTANDING OF NATURAL SCIENCES "WASTEWATERRESOURCE"**

**Framework Programme: FP6 - SAS**

**Action line/Part: C: STEPPING UP THE SCIENCE/SOCIETY DIALOGUE AND WOMEN IN SCIENCE**

**Activity: 4.3.4 Scientific and technological culture, young people, science education and careers**

**Area: 4.3.4.3 Promoting young people's interest in science, science education and scientific careers**

**Dimension: Science Literacy**

**Tool: Coordination Actions**

**Project Call For Proposal: FP6-2004-SCIENCE-AND-SOCIETY-1**

**Status: Closed**

**Total cost: € 307 160**

**Total EU funding: € 264 000**

**Website: [www.play-with-water.ch](http://www.play-with-water.ch)**

**Period: 01/11/2005 - 30/06/2008**

**Subjects:**

**Project ID and Acronym: 21028 - WASTEWATERRESOURCE**

### **BACKGROUND AND CONTEXT OF THE PROJECT AND STRATEGIC NEEDS**

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The over-exploitation of groundwater-fed catchments and the water waste has been crucial problems for Europe, with growing water stress, both in terms of water scarcity and quality deterioration, which has prompted many municipalities to look for a more efficient use of water resources, including a more widespread acceptance of water reuse practices<sup>76</sup>. The European Commission introduced several Directives to deal with the issues, including the Groundwater Directive 2006/118/EC. The importance of research on wastewater treatment, eco-sanitation and nutrient recycling emerged in order to understand the significance of conserving freshwater and preserving ecosystems.

In addition, life sciences, natural sciences and ecology play an important role in addressing environmental problems such as climate change.<sup>77</sup>

To this end, the role of on-site experiments and hands-on experiences could become crucial to raise awareness of land, freshwater, and marine ecosystem restoration and conservation among society, in particular among students, also contributing to raise their interest in ecology and natural science, as well as increase their sense of responsibility on the matter. Introducing elements and means to enable schoolchildren to discover basic concepts in ecology and recycling would be very important in order to understand the potential of wastewater as resource. The adoption of classroom eco-technological teaching systems for children could build upon the natural attractiveness of nature for pupils, also facilitating the discussion on climate-change issues and ecology, involving a larger audience (e.g. parents, experts). The natural world appeals to all children and can be used to engage pupils from groups considered as disadvantaged or underperforming.

### **SPECIFIC PROJECT OBJECTIVES**

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The WASTEWATERRESOURCE project aimed at **collecting and assessing comprehensive teaching and demonstration material** (including "gender-sensitive" materials) based on eco-technological research and methods to learn about the potential of wastewater as a resource. The project targeted young schoolchildren (primary school pupils aged 10-13) in order to support the understanding of basic concepts of ecology and gain personal experience in natural cycle.

#### **SaS/SiS Programme objectives/Activity Lines**

WASTEWATERRESOURCE was expected to assess these new teaching materials, evaluating their suitability, raising interest of "disadvantaged and underperforming groups" in scientific issues, facilitating the connection between scientists and the overall society, in line with the objectives of the 6th Framework Programme "Science and Society" and the relevant Action Line. In particular, the focus on specific and new teaching methods is in line with the programme

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<sup>76</sup> Bixioa, D et al. (2005) *Wastewater reuse in Europe*, Elsevier.

<sup>77</sup> However, fewer young people have been choosing to pursue studies and careers in science, including therefore also life and natural sciences. The field "science, computing and mathematics" represented only the fifth most common field of study in tertiary education still in 2013, with around 10.5% of students graduated (Source: Eurostat).

objective to promote young people's interest in science and in up taking of scientific careers, targeting them directly at school.

### **SaS Action Plan**

Developing and applying new teaching approaches in natural science and ecological engineering, was very important in order to both promote young people's interest in science, encouraging new and creative ways of thinking, and to improve science education, also in line with the objectives of the Science and Society Action Plan, with particular regards to the promotion of more attractive methods for science education in schools (Action 12).

By providing young people with necessary skills and a better understanding of sustainability, WASTEWATERRESOURCE also meant to improve a knowledge-based society. The project foresaw to set up a specific task group to assess and implement teaching units with special focus on girls' interest in science, addressing in this sense also the gender issue.

A better communication between civil society and the scientific community is also pursued through the development of a web-based platform during the project for information sharing, also setting up a discussion about implementation of ecological engineering.

## **PROJECT RESULTS AND OUTCOMES**

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### **Main achievements according to Project objectives**

The main achievement of the project was the development and adaptation of four eco- technological systems as teaching units, to enable students to discover basic concepts of ecology, acquire a personal experience of the natural cycle, discover the potential of wastewater as a natural resource, experiment with ecosystems and experience hypothesis-driven research. The systems, based on contemporary eco-technology, were low cost, easily assembled and easily maintainable by the students themselves, with the potential to integrate both sexes as well as pupils originating from linguistic and cultural minorities, given the universal appeal of nature to children.

The project was organised around 5 different Work Packages, all of them successfully implemented. A methodology was defined for the development and implementation of the teaching units, and to ensure an assessment of the effects of their use (WP1). The project developed a common pedagogical framework for each teaching unit, providing the teachers with instructions to facilitate their uptake in schools (WP2). In addition, specific recommendations for designing the teaching units for gender equity were produced, as well as specific actions to include ethnic minorities and other disadvantaged or underperforming groups. The four teaching units were translated in all the partners' languages (German, Swedish, Norrish, Danish and Slovenian), and successfully implemented in several schools of the partners' regions (WP3). An online platform<sup>78</sup> was created and updated with information about the teaching units and the project idea for the large public, as well as a document archive and teaching material (WP4). Finally, a comprehensive dissemination strategy was implemented at both national and international level (WP5).

The quality of the different teaching units was monitored with questionnaires, interviews and observations, highlighting how the teaching units were successfully implemented and well received in several schools, with pupils showing interest in the activities and only a few limitations occurring in the implementation due to timing and academic requirements

### **Main achievements according to Programme objectives**

The project contributed to pursue and improve the promotion of young people's interest in science and science education, in line with the Programme's objectives, introducing new science teaching methods into school curricula, targeting school pupils between 10 and 13 years of age, as well as introducing a specific focus on young people from "disadvantaged or underperforming" groups<sup>79</sup>, all elements identified in the Science and Society Work Programme 2004 (Activity Line 4.3.4.3).

### **Main achievements according to SaS Dimensions**

The very objectives of the project make it relevant for the dimension "Science Literacy".

The project remains linked to a narrow concept of formal scientific education (i.e. the one occurring in schools focussing on methodologies to improve teaching of scientific subjects), but its results stressed the relevance for the dimension. On the one side, the relevance exists in terms of science education, with the production of teaching units to boost and foster school pupil's interest in science and, with the introduction of demonstrations, role plays,

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<sup>78</sup> [www.play-with-water.ch](http://www.play-with-water.ch), no longer available.

<sup>79</sup> However, assessment on this aspect was not feasible in large scale due to the nature of the employed schools, where minorities were not always present. Even though the Task Group "Ethnic Minorities and Immigrant Children" developed strategies and awareness to improve the material that was focused on the needs and inclusion of minorities, the actual situation, in terms of numbers, in participating schools did not give the opportunity to test the material with respect of minorities (Final Executive Summary).



experimenting and field trips, make science education more attractive to young people. On the other side, results made the project relevant in terms of science communication (informal science education), with the construction of an online platform that provided a wide public with information about the project and the teaching units on wastewater, acting as an information platform for a wide network of stakeholders and general public.

Moreover, the specific task group established with special focus on girls' interest in science made the project also relevant for the dimension "Gender and Science".

### **DISSEMINATION AND ENGAGEMENT ACTIVITIES AIMED AT TRANSFERRING THE PROJECT RESULTS TO WIDER COMMUNITIES**

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The dissemination and transfer of information is key to engage more stakeholders and involve a large public, fostering attractive science education and boosting interest of young people towards science. The project foresaw a plan for using and disseminating knowledge, both to teachers and children, experts, decision makers and public society, built around the webpage, publications and use of mass media and presentations.

The project seems to have included all foreseen dissemination activities. The results and conclusions of the project were disseminated through different channels, targeting both teachers, school pupils, the scientific community, national governments, industry partners and the general public. Dissemination means included:

- **IT:** the project website ([www.play-with-water.ch](http://www.play-with-water.ch)) was launched in January 2006 and constituted the main repository of information on the projects, documents and materials for teachers. The website was continuously updated and improved until the end of the project;
- **Mass media and publications:** The project ideas was promoted to the general public through newsletters, an official brochure (also published on the website), audio-visual materials used during project meetings and with the teachers as well as a video clip for the European Union presented in Euro News in spring 2008 (<http://www.euronews.net/futuris/>), a video clip "Spielen mit Wasser" about aquatic circular flows and the concept of "WasteWaterResearch", and a video about the Water Learning Path, produced by children of the primary school Anton Ukmar. Relevant material included also posters and leaflets presenting synthetically the project results and experiments, press articles about the project available on the internet and journals in the partner countries. Reports were prepared from the task groups on "gender issues" and "Ethnic Minorities and Immigrant Children".
- **Conferences/Workshops:** an international final conference was organised to communicate the results ("Ecological Engineering for Science Education in Primary School", held in Switzerland on 25<sup>th</sup> April 2008), plus several partners made

Coordination problems within the team slowed down the production of main deliverables.

### **PROJECT IMPACTS**

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Beside an increased interest in natural science among pupils, the WASTEWATERRESOURCE project was expected to have a great potential on the **integration of both male and female students** and "disadvantaged and underperforming", as well as to strengthen pupils' self-confidence, thus facilitating tolerance and better social acceptance.

The potential impact of the project is high, given that the project is characterised by the presence, among its consortium members, of "**central**" organisations, with 1 member being in the top 1% of the most central organisations<sup>80</sup> and 2 other being in the top 5%, suggesting that the project could extensively diffuse and spread its results. No significant attractiveness of the organisations involved in the consortium can be seen for the project.

The project actual impacts were:

- **Scientific impact:** no real scientific impacts seem to have been stemmed from the project, with no relevant scientific publications retrieved. This could be explained by the absence of top universities or other research institutions among consortium members, limiting their ability to produce relevant scientific impacts, with no exploitable knowledge generated in this project<sup>81</sup>;
- **Institutional and organisational impact:** no real impacts seems to have been reached going outside the project itself. Concerning the new teaching methods experimented in the project, all teachers reported an

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<sup>80</sup> Being central in a network means that the organisations does not only participate in several projects in the FP but it also participate with other important organisations.

<sup>81</sup> Final Activity Report.

active involvement of pupils in the project and pointed at the advantages from practical work in groups in terms of enhanced collaboration for problem-solving and integration of pupils with difficulties compared to traditional learning methods. Beyond the project, the teaching material was expected to be used several times and for a large spectrum of long-term experiments, unfortunately no information are available on continuous utilisation of teaching material beyond the end of the project. The project, however, produced a teaching unit on a classroom aquaponics system ("Classroom Aquaponics") that was later mentioned as an example of aquaponics and education by the EU Aquaponics Hub<sup>82</sup>. In addition the project was expected to strengthen existing networks of national stakeholders (e.g. through the internet platform used as information hub and discussion forum), but no evidence are found that this produced effects beyond the actual duration of the project. Two more ambitious projects were proposed to build on the work of WASTEWATERRESOURCE (i.e. "WaterTeach", "ScienceGate") under Framework Programme 7, but none was later funded.

- **Policy impact:** the project was expected to contribute to the development of a new European Standard in teaching on water management and sustainability, improving the education policy and school curricula in ecology. Also in this case, no evidence can be found that an actual impact has been produced.
- **Social media impacts:** The project did not produce any relevant social impacts in terms of social media listening buzz results. This may be in part due to the technology and social media development at the time of the project implementation (2006-2008).

### PATH-BREAKING ADVANCEMENTS

The definition of new teaching units, even if it is not an entirely new concept or element in science literacy, represent an important step forward in making science education more attractive for young people, boosting their interest. The mix of desk and field activities constitute a great improvement in the area, and the production of common guidelines and four specific teaching units, replicable in every school with classroom systems designed to be low cost and easy to assemble and maintain by children – serving also as motivation tools, constitute an important example of actions to pursue the relevant objectives of the Programme and the Action Line. The teaching units are examples of low cost, simple and replicable instruments that may serve with the double purpose of motivate and give responsibility to school pupils, and to raise their interest in ecology and – more generally – in science education. The fact that teaching units can be implemented in parallel or independently constitute also a positive aspect of their implementation. In addition, due to the universal appeal of nature to children these systems have a great potential to integrate both sexes as well as "disadvantaged and underperforming" groups.

As already mentioned, the teaching unit "Classroom Aquaponics" was pointed out as an example of aquaponics and education by the EU Aquaponics Hub.

### BEST PRACTICES

No specific best practice could be identified. The project, though, is able to insist on two different dimensions of the Programme, combining a stronger focus on science literacy and education with attention to gender equality.

### EU ADDED VALUE OF THE PROJECT

The EU Added value of the project could be positive. The participation to the Framework Programme allowed both the creation of an international consortium, fostering international cooperation with non-EU countries (Switzerland and Norway), involving different types of organisation from six different countries to work on a new kind of teaching methods to be applied across borders, and to the access to funding to implement the project.

### PARTICIPANTS AND RESEARCH TEAM

#### Participants

Number of participants: 6

Number of countries involved: 6

	Type	Country	Role	Previous participations to FP
Hochschule Wädenswil	Higher education institution	Switzerland	Coordinator	1
Mid Sweden University	Higher	Sweden	Participant	1

<sup>82</sup> <https://euaquaponicshub.com/database/secondary-schools/>.

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	Type	Country	Role	Previous participations to FP
	education institution			
Bildungs- und Demonstrationszentrum für Dezentrale Abwasserbehandlung ev	Research Centre	Germany	Participant	1
Universitetet for Miljø- og Biovitenskap	Higher education institution	Norway	Participant	1
Limnos Company for Applied Ecology ltd	Private commercial	Slovenia	Participant	2
University of Aarhus	Higher education institution	Denmark	Participant	1

### Team Composition

Team Size: members\*

GENDER				
Female		Male		Unknown
19%		75%		6%
SENIORITY				
Average		Junior		Senior
6%		38%		56%
PhD				
No			Yes	
56%			44%	
BACKGROUND				
Applied Sciences	Health Sciences	Humanities & Social Sciences	Natural Sciences	Unknown
6.25%	13%	56%	13%	13%

\*The data are based on the analysis of the provided project's Description of Work.

### DELIVERABLES AND PUBLICATIONS

Project deliverables

DELIVERABLE NO.	DELIVERABLE NAME	DUE DATE OF DELIVERY (month)	ACTUAL SUBMISSION DATE: (month)
D1	One report per participating country, containing a summary of teaching units and input from local stakeholders as base for the discussions on the first workshop	5	8
D2	Report of the Workshop I	6	9
D3	Draft of construction manual complete with teacher instructions and pupil information material for each system	10	14
D4	Standardised description of each system on the internet platform	12	17
D5	Report of the Workshop II	12	14
D6	Report of the Task group "Gender Issues".	12	14
D7	Report of the Task group "Ethnic minorities and Immigrant Children"	12	14
D8	Database on the internet platform	30	36
D9	Assessment published on the restricted area of the internet platform	30	36
D10	Fully functioning website	4	34
D11	Report on the Monthly update of the website	34	34
D12	Report of the task group "Gender Issues".	31	37
D13	Report of the Task group "Ethnic minorities and Immigrant	31	37

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DELIVERABLE NO.	DELIVERABLE NAME	DUE DATE OF DELIVERY (month)	ACTUAL SUBMISSION DATE: (month)
	<i>Children"</i>		
<i>D14</i>	<i>Draft First Conference Call</i>	<i>34</i>	<i>34</i>
<i>D15</i>	<i>Draft for at least one follow-up project.</i>	<i>34</i>	<i>31</i>
<i>D16</i>	<i>Report of the Workshop III</i>	<i>34</i>	<i>36</i>
<i>D17</i>	<i>Audio-visual material ready for use (Video)</i>	<i>34</i>	<i>36</i>
<i>D18</i>	<i>Bilingual brochures</i>	<i>34</i>	<i>36</i>
<i>D19</i>	<i>Progress reports and final report</i>	<i>14-34</i>	<i>14-38</i>
<i>D20</i>	<i>Cost statement/Audit certificates</i>	<i>34</i>	<i>35</i>

No related publications

**MAIN SOURCES**

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WASTEWATERRESOURCE Consortium (2005) Description of Work. Annex I  
WASTEWATERRESOURCE Consortium (2006) Periodic Activity Report  
WASTEWATERRESOURCE Consortium (2006) Report of the task group "ethnic minorities and immigrant children"  
WASTEWATERRESOURCE Consortium (2006) Report of the task group "gender issues"  
WASTEWATERRESOURCE Consortium (2008) Final Activity Report  
WASTEWATERRESOURCE Consortium (2008) Final Activity Report – Executive Summary  
WASTEWATERRESOURCE Consortium (2008) Final Management Report  
WASTEWATERRESOURCE Consortium (2008) Final Dissemination Report.

## **WELCOME TO OBSERVATIONS, NEWS AND DEMONSTRATIONS OF EUROPEAN RESEARCH AND SCIENCE "WONDERS"**

**Framework Programme: FP6 - SAS**

**Action line/Part: C: STEPPING UP THE SCIENCE/SOCIETY DIALOGUE AND WOMEN IN SCIENCE**

**Activity: 4.3.4 Scientific and technological culture, young people, science education and careers**

**Area: 4.3.4.1 Promoting science and scientific culture**

**Dimension: Science Literacy**

**Tool: Coordination Actions**

**Project Call For Proposal: FP6-2005-SCIENCE-AND-SOCIETY-13**

**Status: Closed**

**Total cost: € 799 982**

**Total EU funding: € 799 982**

**Website: not available**

**Period: 01/01/2006 - 28/02/2007**

**Subjects: Information and Media - Scientific Research - Social Aspects**

**Project ID and Acronym: 30237 - WONDERS**

### **BACKGROUND AND CONTEXT OF THE PROJECT AND STRATEGIC NEEDS**

Science festivals are very spread across Europe, and have been designed and launched for more than two decades. There are around one hundred science festivals all over Europe, from Waterford in Ireland to Moscow in Russia, from Tromsø in the North of Norway to Tavira in Portugal. All the festivals were initiated for many reasons, but the key element has been the "awareness raising" capacity related to science and technology. Years later, the science festivals find themselves in a changed environment, where universities and research organisations may no longer have the traditional role to spread scientific knowledge and raising awareness on science, and where concepts of "engagement" and "active participation" have replaced the simple "public understanding of science",<sup>83</sup> as also reflected in the work programme for "Science with and for Society" of the European Union.

### **SPECIFIC PROJECT OBJECTIVES**

The WONDERS project proposed a different concept of science festival and science communication activities. The main motto of WONDERS was "LOOK CLOSER", underlining the scientific method: not just watch the surface, the first impression, but go deeper, think more about it, all in all: LOOK CLOSER! WONDERS was designed to inspire European science communicators to work together and to continue this activity in future years. The WONDERS project foresaw different objectives for its implementation, including:

- **Strengthening the European dimension** of many different Science Communication Events, initiating a discussion on how to better create such dimension and also creating a feeling of "being European" among the general public (e.g. visitors of the events, partner organisations) across Europe and to stimulate Europeans for greater awareness for science, technology and the humanities and dialogues between science and society.
- **Reaching a wide audience** for science events, even wider than before, with joint efforts given by the WONDERS project;
- **Promoting scientific and innovation culture**, encouraging the idea that science, technology and humanities are part of a single, European culture through a series of activities with the aim to be inspirational and educational as well as truly representative for the scientific culture (which includes the European context) and the openness to the public;
- **Developing better science communication activities**, creating new ideas on how to improve Science activities to be implemented during the festival.

The project also aimed at developing existing and new national, regional and local science events, creating ideas and promoting long-term and sustainable effects, with WONDERS designed for a possible development into an annual project.

In addition, WONDERS aimed at creating a basic discussion for a European Science Communication Strategy, creating dialogue between science and society, to enhance science communication methods and to make people, media and government more aware about the importance and the fascination of science and its contribution to the European

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<sup>83</sup> Riise J and Alfonsi L. (2014), From liquid nitrogen to public engagement and city planning: the changing role of science events, SISSA - International School for Advanced Studies.

culture. WONDERS project's objectives were therefore in line with the objectives of the 6th Framework Programme "Science and Society" and the relevant Action Line.

### **SaS/SiS Programme objectives/Activity Lines**

All the activities and outputs produced by the project contributed to the objective<sup>84</sup> of raising awareness around the scientific developments and advances, and the what are the main concerns of citizens on the societal impacts of such advances thanks to a series of communication activities and the creation of a "dialogue" between society and the scientific community. The organization of science festivals and communication activities contributed to the objective of promoting young people's interest in science, supporting their uptake of scientific careers, by promoting a scientific and innovation culture.

### **SaS Action Plan**

WONDERS was relevant for the SaS Action Plan objective of organizing and developing networking scientific events throughout Europe (Action 7), also developing and disseminating education research projects on science and technology (Action 15). The project pursued such objectives by fostering science communication and organizing dedicated, pan-European events, in order to raise awareness of the European dimension of science, and its potential for society.

## **PROJECT RESULTS AND OUTCOMES**

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### **Main achievements according to Project objectives**

The main achievement of the project was the organisation of the first European Science Festival comprising and favouring the exchange of multiple regional and local science festivals. The project introduced the "Carousel of Science", an inter-European exchange of the best and Science Communication Activities between 21 partner cities and countries, as a mean to create exchanges and interaction between science festival and activities. The total of all exchanges travelled 31,860 kilometres (nearly 80 % of the circumference of the earth). The 'Carousel of science' started with one pilot in March 2006, with about 20 presenters from the area around Freiburg, Germany going to Newcastle-upon-Tyne to present their special science communication. Nearly a hundred events took place across Europe.

The emphasis was on promoting lively projects and activities to capture the imagination and show how science – its impacts, uses and applications – is relevant to all Europeans regardless of age, background and education. In parallel with the Carousel of Science, the project organised student discussions in the participating cities about different issues in science and technology, with CliClim, a European Survey "Click for the Climate" with the possibility to pledge actions to save energy and preserve the environment. WONDERS also organised a major Final Event with the best Activities of the CAROUSEL of Science, taking place in Helsinki, during the EU presidency of Finland, end of 2006. WONDERS will motivate European science communicators to work together with the idea to continue this cooperation in coming years.

An important achievement can be seen related to the objective of developing better and more organized science communication activities. The scientific community learnt how to develop science communication in a professional way and was able to apply it during the project, reaching a wider public and making them aware of the importance and impacts of science.

No specific objectives seems not to have been pursued and achieved.

### **Main achievements according to Programme objectives**

The project contributed to promote science and scientific culture. It worked to develop interest in scientific culture, education and careers among society, by organising events to increase public awareness, improve communication between the scientific community and the public, involving a large audience in activities to increase the impact of science and its uses on the daily lives of European citizens, in line with the elements identified in the Science and Society Work Programme 2005 (Action 4.3.4 Scientific and technological culture, young people, science education and careers).

### **Main achievements according to SaS Dimensions**

The very objectives of the project make it relevant for the dimension "Science Literacy", with objectives and results in terms of science communication and intensification of science awareness, expanding the concept from a formal scientific education model (e.g. in schools) to a wider and more informal science communication, in different places

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<sup>84</sup> Science and Society Work Programme 2005 (Action 4.3.4 Scientific and technological culture, young people, science education and careers).

and with many different events. In addition, the project meant to ease the science communication, focusing on both young people and the general public, as well as the scientific community, stressing the importance of participation.

## **DISSEMINATION AND ENGAGEMENT ACTIVITIES AIMED AT TRANSFERRING THE PROJECT RESULTS TO WIDER COMMUNITIES**

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The dissemination and transfer of information is key to spread knowledge and raise awareness among the general public, promoting science and a scientific culture across Europe. The project seems to have conducted all the foreseen dissemination activities. The very nature of the project made the implementation a process of dissemination and awareness-raising, with activities and events. The project used different channels to disseminate objectives, results and conclusions, including:

- **IT:** the project website ([www.wonders.at](http://www.wonders.at)) was launched in February 2006, targeting the main audience, general public, visitors to the events and interested media, as main repository of information on the projects, all the events and relevant documents. The website was amended and updated throughout 2006. The website comprised information on the main science activities. Moreover, the website was used for a mass participation activity – CliClim, Click for the Climate – providing visitors with an immediate figure for the carbon dioxide saving thanks to the implementation of the activity, with documents translated in all the languages of the partners' countries;
- **Mass media and publications:** The project was largely present on the media. The final event in Vantaa (December 2006) saw 3 tv-spots on the main Finnish tv-channel, a large article on a Finnish newspaper, nationwide coverage of the event via the Finnish news agency, a press release and other media hits. At all Carousel events a press release (either on radio, tv or press) was made, addressing 12 countries, as well as a media briefing for the higher education representatives.
- **Conferences/Workshops:** As already said, the very nature of the project's activities contributed to the dissemination. A Launch conferences was organised with 80 participants in March 2006, and performances and demonstrations for the general public were held at all Carousel events. In addition, Science Cafés were used as dissemination tool for the general public, media and students, addressing 9 different countries.

## **PROJECT IMPACTS**

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The WONDERS project was expected to have a potential impact on two different level related to science dissemination, the public one and the professional one. Through the development of the events and activities, the project brought a real European dimension to science communication and science dissemination.

The great results and the enthusiastic implementation and finalisation of the project contributed to a second European Science Festival – WONDERS 2007 – held the following year. This new, one-year project introduced new features, like a main topic and group dialogue games with schools, with presentations and events held in 31 partner cities in 24 countries. Concerning the participants, only one of the consortium partners was in the top 10% of the most central organisations<sup>85</sup>, suggesting that the project did have – even if low – some potential to produce results and impacts.

The project actual impacts were:

- **Scientific impact:** As reported in the final tables of this document, a publication related to the project was produced, going beyond the average scientific outputs of SaS projects (0.5 publication per project). Moreover, the publication was cited in an additional paper, suggesting a positive recognition of the project itself. The presence of a Consortium member that was among the top 10% of all SaS participants in terms of "network centrality" contributed to this result, being therefore likely for the project to produce impacts, even if no exploitable knowledge generated in this project<sup>86</sup>;
- **Institutional and organisational impact:** the project has a particular focus on science communication, but no real policies, instruments or networks seem to have been created, that survived beyond the project itself. However, the Science Carousels, fostering exchanges and collaborations among different countries, allowed to prepare the ground for, in many cases, the planning of new mutual projects, based on these practical experiences of working together. In addition, the consortium members developed and use the knowledge and the experience gained through this project to implement further activities. The WONDERS project was replicated in 2007, with new and additional features, reaching 24 countries. In addition, another FP-funded

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<sup>85</sup> Being central in a network means that the organisations does not only participate in several projects in the FP but it also participate with other important organisations.

<sup>86</sup> Final Activity Report.

project, 2WAYS,<sup>87</sup> was built on the experience gained by WONDERS coordinator and the activities implemented in this project.

- **Policy impact:** the project developed a new idea of science communication and science festivals that was meant to last also after the end of the project. However, no real evidence can be found that an actual impact has been produced.
- **Social media impacts:** The project did not produce any relevant social impacts in terms of social media listening buzz results. This may be in part due to the technology and social media development at the time of the project implementation (2006).

One of the main challenges encountered by the project concerns the important to foster connection and communication between public and science, as well as to influence research through people's needs. There is the need for experts in science research and communication in order to enhance this connection and increase the potential of science for society.

### PATH-BREAKING ADVANCEMENTS

The project WONDERS was the first European science festival with the idea of organising a new concept of science communication events, with the 'Carousel of Science', an exchange of science presentations from one to the next science festival, encouraging cooperation and exchange between national, regional and local science festivals. In addition, the idea of science cafes was renewed, with internet pledges to show concern for the climate change, with web discussions and with launch and finals events, where the best of the best science communication events were elected.

### BEST PRACTICES

The project contributed to build both a stronger communication capacity and abilities of scientists in communicating scientific advances and potential to society, as well as testing it outside places more used to this type of activities (e.g. museums). In addition, the project created a new concept of organizing science events.

### EU ADDED VALUE OF THE PROJECT

The EU Added value of the project seems to be relevant. The participation to the Framework Programme allowed the consortium to access the resources for the organisation of a cross-country project, involving both EU and non-EU countries. In addition, the project fostered the participation of new EU Member States (e.g. Lithuania, Poland), that were able to be involved and collaborate with other countries in organising and exchanging scientific activities.

### PARTICIPANTS AND RESEARCH TEAM

#### Participants

Number of participants: 3

Number of countries involved: 3

	Type	Country	Role	Previous participations to FP
European Science Events Association	OTH	Austria	Coordinator	2
Union Européenne Des Associations De Journalistes Scientifiques	OTH	France	Participant	1
Association Européenne Des Expositions Scientifiques, Techniques Et Industrielles	OTH	Belgium	Participant	1

#### Team Composition

Team Size: members\*

### GENDER

<sup>87</sup> "Two WAYS for Communicating European Research about Life Sciences with Science Festivals & Science Centres/Museums, Science Parliaments & Impact Survey", funded under FP7-SiS.



Stock-taking and meta-analysis of Science in Society projects throughout FP6 and FP7  
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Female		Male		Unknown	
43%		75%		6%	
<b>SENIORITY</b>					
Average		Junior		Senior	
6%		29%		71%	
<b>PhD</b>					
No			Yes		
86%			14%		
<b>BACKGROUND</b>					
Applied Sciences	Health Sciences	Humanities & Social Sciences		Natural Sciences	Unknown
14%	0%	14%		14%	57%

\*The data are based on the analysis of the provided project's Description of Work.

### DELIVERABLES AND PUBLICATIONS

Project deliverables

DELIVERABLE NO.	DELIVERABLE NAME	DUE DATE OF DELIVERY (month)	ACTUAL SUBMISSION DATE: (month)
D1	Launch Conference Report	6	12
D2	CliClim in operation	4	4
D3	Marketing Guidelines	4	3
D4	Website	4	3
D5	Partners' Manual	4	3
D6	Evaluation Report	14	14
D7	Final Report	14	14

Publication s no.	PUBLICATION	LINK (when available)
1.	Riise J and Alfonsi L. (2014), <i>From Liquid Nitrogen to Public Engagement and City Planning: the Changing Role of Science Events</i> , SISSA - International School for Advanced Studies.	<a href="https://jcom.sissa.it/sites/default/files/documents/JCOM_1304_2014_C03.pdf">https://jcom.sissa.it/sites/default/files/documents/JCOM_1304_2014_C03.pdf</a>

### MAIN SOURCES

WONDERS Consortium (2005) Description of Work. Annex I  
WONDERS Consortium (2006) Final Activity Report  
WONDERS Consortium (2006) Evaluation Report  
WONDERS Consortium (2006) Partners' Manual

## **EUROBOT: ROBOTIC EDUCATIONAL EVENTS TO PROMOTE A DISSEMINATION OF SCIENCE AND TECHNOLOGY AMONG YOUNG PEOPLE IN EUROPE "EUROBOT 2006"**

**Framework Programme: FP6 - SaS**

**Action line/Part: C – Stepping up the science/society dialogue and women in science**

**Activity: 4.3.4 Scientific and technological culture, young people, science education and careers**

**Area: 4.3.4.1b Promoting science and scientific culture – EU dimension of science weeks 2006**

**Dimension: Science Literacy**

**Tool: Specific Support Action**

**Project Call For Proposal: FP6-2005-Science and Society-13**

**Status: Closed**

**Total cost: €885,667.40**

**Total EU funding: €691,749.67**

**Website: <http://www.eurobot.org/>**

**Period: 02/01/2006 - 01/02/2007**

**Subjects: Information and Media – Scientific Research – Social Aspects**

**Project ID and Acronym: 30282 – EUROBOT 2006**

### **BACKGROUND AND CONTEXT OF THE PROJECT AND STRATEGIC NEEDS**

Robotics is a fast developing market in Europe and around the world, increasingly exploited in the development of services and products and in different areas (e.g. manufacturing, healthcare, transportation, environment, agriculture). The world of robotics have constantly increased its importance in human life, improving and enlarging the number of applications, with an increasing impact on and use in daily lives, including homes, cars and hospitals, and highlighting elements considering the risks and benefits on society as a whole.<sup>88</sup> In this context, Europe is one of the leading regions in the area, with a 25% share of supply and use and a positive growth year after year.

Created in 1998, Eurobot is an international amateur robotics contest open to teams of young people, organised either in student projects or in independent clubs. Eurobot takes place in Europe but also welcomes countries from other continents.

### **SPECIFIC PROJECT OBJECTIVES**

The EUROBOT project has the main objective of promoting the festival as an educational international contest in robotics, involving and encouraging students (from 8 to 27 years of age), creating attractive programmes to raise the interest of the general public towards robotic.

In particular, the EUROBOT contest aims at creating scientific and educational valuable challenges for students at different ages and from different countries (rules are available in up to 5 languages), renewed every year and elaborated and tested by a European team of robotics professors and experts, organising also national competitions to select the best teams and organising complementary events all year along.

The project targets young students, involving also professors and other partners, reinforcing partnerships with media and scientific institutions, developing contact and work with other European actors and networks in education and science. The project wants also to promote these events and robotics in general at a large scale targeting the general public, raising interest and awareness over the importance of robotics, through communication strategies across Europe.

#### **SaS/SiS Programme objectives/Activity Lines**

The project pursued the objectives of increasing public awareness of scientific and technological advances and their societal impacts – and possible applications, promoting a scientific and innovation culture through the contest dedicated to young scientists and students, in line with the activity objectives (4.3.4) and programme's objective of raising awareness and promoting young people's interest in science and in up taking of scientific careers. The project implemented a series of activities (events, exhibitions, contest) in order to promote scientific culture and increase the impact of science in daily lives, as states by the relevant area.

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<sup>88</sup> <http://ec.europa.eu/programmes/horizon2020/en/h2020-section/robotics>

### **SaS Action Plan**

The project's objectives were in line with those included in the SaS Action Plan. In particular, the project pursued the objectives of promoting a scientific and education culture in Europe (Objective 1), especially related to Action 7 (Network scientific events throughout Europe) with the organization of festival and educational contest that involved students across Europe.

Also Action 15 (Develop and disseminate education research projects on science and technology) could be seen as in line with EUROBOT2006 objectives, being a concrete and attractive training for future scientists, an opportunity to involve young scientists and students in team project work dedicated to applied research.

### **PROJECT RESULTS AND OUTCOMES**

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#### **Main achievements according to Project objectives**

The project aimed at organising a festival as an educational international contest in robotics, and this was fully achieved. The festival final gathered 57 teams from 23 countries (7 non-EU Member States), with over 500 people attending the first day and over 750 the second, with 247 young people and teachers participating.

The project, building on an already established format, provides a good opportunity for young students and scientists to have fun with technology, showing that designing and building sophisticated robots can also be a play for young people in their day-to-day life, in line with its objectives. In addition, it worked in order to explain to the public the tomorrow's applications of research.

The project built on the previous editions, but with an increased popularity and participation: starting from the 4 Member States involved in 1998 first edition, it reached over 300 young students, participating in 50 different teams from 22 countries in 2005, with 250 teams considering all the national events. Building on these increasingly positive results, the 2006 edition developed events and initiatives to reach and attract around 6000 participants from 28 countries, gathering around 40,000 visitors to the exhibitions.

#### **Main achievements according to Programme objectives**

The organisation of the contest, both in terms of national activities and final event, responded to the Programme objectives, contributing to the promotion of science and scientific culture in Europe (Activity Line 4.3.4.1). The element of targeting students and young scientists made such activity even more important in order to stimulate interest in scientific culture, education and careers, and the uptake – with specific focus on students – and development of scientific innovations.

#### **Main achievements according to SaS Dimensions**

The very objectives of the project make it relevant for the dimension "Science Literacy", by pursuing the promotion of science and scientific culture, both among young students and the general public. The project seems to push towards a more informal scientific education, bringing school pupils and students into a competition outside schools, engaging them in new activities and events.

This results in organising activities both at national and international level, as well as including the project into a series of annual events with some precedents<sup>89</sup> and continued each year afterwards. In addition, the project allowed exchanges and meetings among different actors – e.g. universities – potentially paving the ground for new collaborations, encouraging international contacts and exchanges between young scientists.

### **DISSEMINATION AND ENGAGEMENT ACTIVITIES AIMED AT TRANSFERRING THE PROJECT RESULTS TO WIDER COMMUNITIES**

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The project was developed through a series of national and a final international event. In order to implement all the activities, starting at national level in all the affiliated countries, the project used a series of dissemination and communication means. The project seems to have conducted all foreseen dissemination activities.

The activities and results of the project were disseminated through different channels, targeting mainly the general public. Dissemination means included:

- **IT:** the project website ([www.eurobot.org](http://www.eurobot.org)) constituted the main repository of information on the projects, events and documents, as well as the rules and the application forms for participants. The website was continuously updated until the end of the project;

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<sup>89</sup> The EUROBOT contest was first organised in 1998.

- **Mass media and publications:** the project planned to produce images and materials for dedicated and general TV programmes during the competition, encouraging TV channels in Europe to spread materials and information about the contest. In the end, for the EUROBOT Junior event, the coverage included written press (35 articles), radio (3 interviews) and TV broadcasts (1 reportage and 2 direct transmissions of the final);<sup>90</sup>
- **Conferences/Workshops:** the project planned to use special events to raise public awareness and launch the competition, e.g. during national science weeks or other events at national and European level, as well as conferences aimed at general public, to enlarge the audience. In addition, the choice to have the final event in a different country from previous years – and continuing to do so afterwards – contributed to include and involve other MS.

## PROJECT IMPACTS

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The EUROBOT 2006 project was expected to have a great potential in increasing awareness and reaching the large public, gaining notoriety for EUROBOT 2006 and promoting European robotic research. Moreover, the project expected to have an impact on the target groups, mobilising a large number of students and the number of countries taking part in the following editions of Eurobot.

The potential impact of the project is also expressed by:

- The presence of “**central**” **organisations**”:<sup>91</sup> the Consortium is characterised by the presence of a Top 5% organisation (Università di Catania) only, suggesting that, even if the project can count on a Consortium member with quite a strong capacity to diffuse and spread information, the overall outreach is not particularly strong;
- The presence of **highly ranked and scientifically renown organisations**: the project, however, does not include any highly ranked universities or research institutions, lowering the potential impact;
- The “**business attractiveness**” of the consortium: also in this case, no highly ranked R&D investors are present in the Consortium, undermining the overall potential of the project.

Under these considerations, the project actual impacts were limited over some areas, with more positive results in others:

- **Scientific impact:** the project seemed to have produced some scientific impact. A relevant publication was produced, *Software Agents for Autonomous Robots: The Eurobot 2006 Experience*, which was later cited by three other different sources. This element underlines the importance that the project might have had for participants and the scientific community. This is particularly relevant given the lack of particularly highly ranked universities within the Consortium;
- **Institutional and organisational impact:** in this terms, the impact of the project was certainly high. The Eurobot contest is still up and running in 2016, with an increased participation and audience. EUROBOT 2006 in this sense was part of such growth, increased importance and relevance of the contest in Europe. In addition, the differences in organization – with the final contest being held each year in a different country – contributed to enlarge the participation and the audience, being able to involve and reach other countries and organisations;
- **Policy impact:** The project was included in the larger framework of the Europe Science Week initiative, becoming a milestone for the European promotion of scientific knowledge among the large public. The contest continued to be organized and promoted, being an important part of the European set of activities on science and robotics;
- **Social Media Impacts:** The project produced some limited results in terms of social media listening buzz.<sup>92</sup> Two different posts on social media were produced by the project, which, given the social media development at the time of the implementation (2006) can be considered a positive result of the “echo” of the project.

## PATH-BREAKING ADVANCEMENTS

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Despite the large number of events and initiatives to foster and encourage scientific culture in Europe, EUROBOT represents an innovative example of communicating science to the general public, creating a communication product

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<sup>90</sup> No information is readily available for the EUROBOT Senior event and other initiatives.

<sup>91</sup> Being central in a network means that the organisations does not only participate in several projects in the FP but it also participate with other important organisations, with a high capacity to diffuse and spread information and knowledge.

<sup>92</sup> This aspect looks at the extent to which the project results generated an “echo” on social media and was used by other stakeholders.

for general dissemination. It encouraged students to directly produce innovation and scientific results and to make professional contact with industry, contributing to a better understanding of business and science.

### **BEST PRACTICES**

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Established the first time in 1998, EUROBOT continues its work and activities across Europe, involving students in a competition, with dedicated events and initiatives to foster and encourage scientific culture in Europe.

### **EU ADDED VALUE OF THE PROJECT**

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The EU Added value of the project is likely to be positive, even if there is little or no element to detail it. Both the Eurobot contest and the Eurobot Association had been already been established before 2006, but the participation to the Framework Programme would have supported the Association to receive funding, creating a cross-European team and involving various countries and organisation, becoming an important step to let the contest grow and continue during the following years. In addition, despite the number of countries of the Consortium is quite low (4), the countries involved in the project as participants is considerably higher.

### **PARTICIPANTS AND RESEARCH TEAM**

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#### **Participants**

Number of participants: 5

Number of countries involved: 4

<i>Name</i>	<i>Type</i>	<i>Country</i>	<i>Role</i>	<i>Previous participations to FP</i>
<i>VM GROUP SA</i>	<i>OTH</i>	<i>France</i>	<i>Coordinator</i>	<i>1</i>
<i>Obcanske Sdruzeni Robonika</i>	<i>OTH</i>	<i>Czech Republic</i>	<i>Participant</i>	<i>1</i>
<i>Università degli Studi di Catania</i>	<i>HES</i>	<i>Italy</i>	<i>Participant</i>	<i>1</i>
<i>Parc d'aventures Scientifiques</i>	<i>OTH</i>	<i>Belgium</i>	<i>Participant</i>	<i>1</i>
<i>Planète Sciences</i>	<i>OTH</i>	<i>France</i>	<i>Participant</i>	<i>1</i>

#### **Team Composition**

*Team Size: members\**

<b>GENDER</b>				
Female		Male		Unknown
/		/		/
<b>SENIORITY</b>				
Average		Junior		Senior
/		/		/
<b>PhD</b>				
No			Yes	
/			/	
<b>BACKGROUND</b>				
Applied Sciences	Health Sciences	Humanities & Social Sciences	Natural Sciences	Unknown
/	/	/	/	/

*\*The data are based on the analysis of the provided project's Description of Work.*

### **DELIVERABLES AND PUBLICATIONS**

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It presents the documents produced by the project (intermediate and final report, dissemination report) and any publication produced as direct consequence of the project.

#### **Project deliverables**

Stock-taking and meta-analysis of Science in Society projects throughout FP6 and FP7  
Final Case Studies

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DELIVERABLE NO.	DELIVERABLE NAME	DUE DATE OF DELIVERY (month)	ACTUAL SUBMISSION DATE: (month)
D2	<i>Eurobot contest rules</i>	-	-
D4	<i>Programme Eurobot junior</i>	-	-
D6	<i>List of team and results</i>	-	-
D7	<i>Attendance – Eurobot Junior</i>	-	-
D12	<i>Programme</i>	-	-
D13	<i>List of Team Final</i>	-	-
D14	<i>List of Participants Final</i>	-	-
D15	<i>Workshop proceedings</i>	-	-

Publications no.	PUBLICATION	LINK (when available)
1.	<i>Nicosia, V., Spampinato, C. and Santoro C. (2006), Software Agents for Autonomous Robots: the Eurobot 2006 Experience, Università di Catania</i>	<a href="http://citeseerx.ist.psu.edu/viewdoc/download;jsessionid=3DE9E528E6F5E538D220F490418A241E?doi=10.1.1.107.4678&amp;rep=rep1&amp;type=pdf">http://citeseerx.ist.psu.edu/viewdoc/download;jsessionid=3DE9E528E6F5E538D220F490418A241E?doi=10.1.1.107.4678&amp;rep=rep1&amp;type=pdf</a>

**MAIN SOURCES**

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EUROBOT2006 Consortium (2006) Description of Work. Annex I  
<http://www.eurobot.org/>

## **DAMOCLES OVER EUROPE - "DOE"**

**Framework Programme: FP6 - SaS**

**Action line/Part: C – Stepping up the science/society dialogue and women in science**

**Activity: 4.3.4 Scientific and technological culture, young people, science education and careers**

**Area: 4.3.4.1 Promoting science and scientific culture**

**Dimension: Science Literacy**

**Tool: Specific Support Action**

**Project Call For Proposal: FP6-2005-Science and Society-15**

**Status: Closed**

**Total cost: €190,000**

**Total EU funding: €190,000**

**Website: None**

**Period: 01/11/2006 – 31/10/2008**

**Subjects: Social Aspects**

**Project ID and Acronym: 36706 – DOE**

### **BACKGROUND AND CONTEXT OF THE PROJECT AND STRATEGIC NEEDS**

The importance of the Arctic and the Arctic Ocean system is crucial for Europe's climate, coming at the centre of the climate change, which will be felt first and foremost in this region. Stories abound on the loss of Arctic Sea ice, on Greenland's calving glaciers, on the Gulf Stream and the consequences for humanity, not only in terms of the impact of climate change, but also with regard to the effect on the commercial activities in the North. There is growing public interest about the Arctic. At the same time, scientific activity on this subject is on the rise, aiming at understanding the likely consequences of changes in hydrological cycles, loss of ice cover, flow rates of ocean currents.

In this context, the European Union funded the DAMOCLES<sup>93</sup> project under the FP6, as a contribution to the International Polar Year 2007-2008. Damocles aimed to collect integrated data on the Arctic ice-ocean-atmosphere system, in order to improve predictive models, allowing a better understanding of interactions with climate. On the basis of the results and findings of the project, a specific exhibition was set up. The DOE – Damocles over Europe - project consisted in a further exhibition intended to enhance the already existing DAMOCLES exhibition

### **SPECIFIC PROJECT OBJECTIVES**

Besides enhancing the existing DAMOCLES Exhibition, the DOE project aimed to inform the general public throughout Europe about the EU funded research being carried out in the Arctic, clarifying some prevalent misconceptions about climate and the Arctic.

In particular, the DOE project objectives were to:

- Convey to the general public across Europe, in a stimulating and interesting format, the aims and scope of the collaborative European research efforts being conducted in the Arctic regions by the DAMOCLES consortium, involving over 40 European research institutions;
- Explain how a greater understanding of global warming in the Arctic would contribute to a clearer understanding of how Arctic climate changes may have socio-economic impacts in Europe and globally;
- Promote greater awareness of the European contribution to Arctic research aimed at understanding regional and global climate processes,
- Demonstrate the latest innovative cutting-edge technologies that DAMOCLES was developing with the EU and ESA in support of its Arctic observation activities;
- Contribute to Europe's International Polar Year 2007-08 (IPY) activities, communicating on polar science.

### **SaS/SiS Programme objectives/Activity Lines**

The project objectives and activities contributed to pursue SaS programme objectives, namely to raise awareness of science and research among the public.

Extending the impact of communication on research. The DOE project, providing the multilingual, design and logistical support to enhance the DAMOCLES exhibition, aimed to reach out to a broad public across Europe to communicate,

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<sup>93</sup> (Developing Arctic Modelling and Observing Capabilities for Long-term Environmental Studies)

and to stimulate interest in, European researchers' findings on the present and future environmental status of the Arctic regions, in line with the objectives of the SaS Work programme (4.3.4.1). In addition, the project had the objective of pursuing and boosting EU scientific excellence, improving the position of the EU and EU Scientists in the world, as well as promoting young people's interest in science (4.3.4.3).

#### **SaS Action Plan**

The project's objectives were in line with those included in the SaS Action Plan. In particular, the project pursued the objective of "promoting a scientific and education culture in Europe" (Objective 1), especially related to the creation of science networks and events under Action 7 (Network scientific events throughout Europe).

The DOE objectives could also be seen as in line with Action 10 (Ensure systematic public dissemination of EC research activities) given the role of the EU-funded DAMOCLES project.

**European Research Area:** The project, by providing support actions and exhibition materials in several EU languages, promoted EU research across Europe, as an example of integrated research in Europe, following the objectives of the ERA.

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### **PROJECT RESULTS AND OUTCOMES**

#### **Main achievements according to Project objectives**

The DOE project consisted in a mobile Exhibition, inaugurated at the Royal Belgian Institute of Natural Sciences in Brussels and travelling across Europe. It was characterised by innovative design, animation and content. The Exhibition was accompanied by discussions on the role of scientific research in the Arctic region, answering questions on the world climate system and the reasons behind observation and study. It also project provided important input and information on the Arctic and the DAMOCLES project, by presenting a series of scenarios of the Arctic under climate change.

The project met its main objectives in:

- Creating a stimulating and visually attractive exhibition for the general public on the Arctic and world climate, based on the DAMOCLES research project;
- Reaching out the general public across Europe, to disseminate and communicate on the DAMOCLES project and its importance, with 7 different exhibitions in 5 Member States (Belgium, Bulgaria, France, Italy and Luxembourg) and over 250,000 visitors attending the events hosting the exhibition. The diversity of the venues and events allowed communication to various target groups including students, the general public and professionals, while the integration of the exhibition in larger events allowed raising interest for polar sciences in the general public;
- Raising awareness and explaining global warming and its connection with the Arctic and the DAMOCLES project.

The DOE exhibition was put together by the International Polar Foundation (IPF) showcasing the DOE project, the largest EU funded research project in the Arctic Basin, with over 48 partner institutes seeking to throw light on the interactions between Arctic Ocean, ice and atmospheric mechanisms and how they influence climate. The exhibition consisted of a 7 m x 7 m square structure, with a panorama of the Arctic landscape. Behind this panorama various Arctic themes could be observed through slits in the panorama. The 'red-line' theme was Arctic past and present - the Arctic through history in terms of climate, science and the nature of life in contrasting warm and cold periods. This led in turn to a discussion of the role of scientific research in the Arctic in providing clues to the functioning of the world climate system.

#### **Main achievements according to Programme objectives**

The project implementation was in line with the promotion of science in Europe and fostering science communication over EU-funded research, as well as the programme's expected results to enhance the interest in scientific culture of different societal groups, including students and young people.

The mobile exhibition allowed to cover multiple EU Member States and reach out a large audience, as planned. In Paris, the exhibition was presented in the European Commission's Research Directorate-General stand. The diversity of the venues and events allowed communication to various target groups including students, the general public and professionals. The integration of the exhibition in larger events has allowed raising interest for polar sciences in the general public

#### **Main achievements according to SaS Dimensions**

The very objectives of the project made it relevant for the dimension "Science Literacy", by pursuing the promotion of science and raising awareness over EU research and specific scientific fields – in this case the Arctic. In terms of the relevant trends of the dimension, the project lies more towards an informal education, not targeting directly schools or education institutions, and in a more "informal" way than teaching methods and paradigms.



## **DISSEMINATION AND ENGAGEMENT ACTIVITIES AIMED AT TRANSFERRING THE PROJECT RESULTS TO WIDER COMMUNITIES**

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The very nature of the project and its objective made the dissemination a key aspect of its implementation. DOE developed a series of actions to promote the project, with the scientific support of the DAMOCLES consortium.

The activities and results of the project were disseminated through different channels, targeting the general public and in particular youngsters. No specific foreseen dissemination activities seem not to have been pursued by the project. Dissemination means included:

- **IT:** the DOE project relied on the larger and already developed DAMOCLES website (<http://www.damocles-eu.org/>), which constituted the main repository of information on the projects. Also the IPF's Science poles ([www.sciencepoles.org](http://www.sciencepoles.org)) website was used to disseminate information on DOE, both advertising the exhibit and highlighting the most important take-out messages;
- **Mass media and publications:** The project used a series of publicity tools and documents announcing the Exhibition: science writing, design, graphics, and layout of supporting documentation, contacts with the press, contacts with service providers, writers, translators etc. All print and web based activities were coordinated. The project also produced multilingual support documentation (brochures) and exhibition posters;
- **Conferences/Workshops:** the project, in addition to the mobile and itinerant cycle of exhibitions, participated in the International Polar Year (IPY) activities. The DOE exhibition was also integrated in the Class Zero Emissions, a new educational project, initiated by the IPY from 2009.

## **PROJECT IMPACTS**

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The DOE project was expected to produce multiple impacts in raising awareness on the DAMOCLES project and promoting EU science and science education, with particular regard to the polar and arctic research.

The potential impact of the project is also expressed by:

- The presence of "**central**" organisations<sup>94</sup>: in the Consortium there were no organisations ranking among the top 10% organisations for centrality. This suggests that, even if the project was built on a large, existing EU-funded project, the overall capacity to diffuse and spread information could be undermined;
- The presence of **highly ranked and scientifically renowned organisations**: the project does not include any highly ranked universities or research institutions. As in the case of the centrality, this could negatively affect the potential impact;
- The "**business attractiveness**" of the consortium: also in this case, no highly ranked R&D investors were present in the Consortium, undermining the overall potential of the project.

Under these considerations, the project actual impacts were more relevant in some areas than in others:

- **Scientific impact:** the project seemed to have produced no scientific impact in terms of scientific publications and citations. The nature and the objectives of the project, mainly of awareness raising and communication, did not facilitate any scientific production in this sense;
- **Institutional and organisational impact:** the project built on the EU-funded and running DAMOCLES project, which was the main project in the area and the European Contribution to the International Polar Year. The project, however, ended in 2010 and therefore also the institutional impact of the DOE project was limited;
- **Policy impact:** as regards policies, the impact of the project was expected to be high. It was included in the larger framework of the DAMOCLES project and the International Polar Year, becoming an important part of the European initiatives for the IPY, as well as for the promotion of scientific knowledge and European Research excellence, by demonstrating why (Arctic) research is relevant;
- **Social Media Impacts:** The project did not produce relevant results in terms of social media listening buzz<sup>95</sup>, probably due to the social media development at the time of the implementation (2008).

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<sup>94</sup> Being central in a network means that the organisations does not only participate in several projects in the FP but it also participate with other important organisations, with a high capacity to diffuse and spread information and knowledge.

<sup>95</sup> This aspect looks at the extent to which the project results generated an "echo" on social media and was used by other stakeholders.

## PATH-BREAKING ADVANCEMENTS

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The development of the DOE project had to take into account different considerations and factors, including the need to strongly and effectively communicate not only science, but mainstreaming a particular and specific research activity, the visibility expectations of the DAMOCLES Consortium, and the importance of the International Polar Year. The project defined a new concept of exhibition, with a set of designers and the input from the DAMOCLES project, developing it around four layers to incorporate the past, present and future of the Arctic Ocean.

## BEST PRACTICES

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As already mentioned, the project was strongly linked with another EU project, DAMOCLES, which started earlier and ended one year after DOE. To this end, the latter became a platform, a resonance chamber for the former, with the specific objective of raising awareness over the research developed and scientific areas explored by DAMOCLES.

Moreover, there was a strong collaboration between the two projects, with the 46 members of the DAMOCLES Consortium being involved in providing DOE with scientific and other input. It is an important example of a strong link and cooperation between EU funded projects, exchanging knowledge and resources for common objectives.

## EU ADDED VALUE OF THE PROJECT

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The EU Added value of the project is likely to be positive. This, together with the strong link of the two projects and the important EU dimension of the DOE project, increased the EU added value, despite the low number of countries involved in the project consortium.

## PARTICIPANTS AND RESEARCH TEAM

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### Participants

Number of participants: 2

Number of countries involved: 1

	Type	Country	Role	Previous participations to FP
International Polar Foundation	Other	Belgium	Coordinator	1
Polaris Centre ASBL	Other	Belgium	Participant	1

### Team Composition

Team Size: members\*

GENDER				
Female		Male		Unknown
40%		60%		-
SENIORITY				
Average		Junior		Senior
-		50%		50%
PhD				
No		Yes		
90%		10%		
BACKGROUND				
Applied Sciences	Health Sciences	Humanities & Social Sciences	Natural Sciences	Unknown
20%	0%	30%	50%	0%

\*The data are based on the analysis of the provided project's Description of Work.

## DELIVERABLES AND PUBLICATIONS

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### Project deliverables

Stock-taking and meta-analysis of Science in Society projects throughout FP6 and FP7  
Final Case Studies

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<i>DELIVERABLE NO.</i>	<i>DELIVERABLE NAME</i>	<i>DUE DATE OF DELIVERY (month)</i>	<i>ACTUAL SUBMISSION DATE: (month)</i>
<i>D1-1</i>	<i>Scenario (EN) Master version for DAMOCLES+</i>	<i>3</i>	<i>3</i>
<i>D1-2</i>	<i>Scientifically validated translations of the scenario (9 versions)</i>	<i>6</i>	<i>12</i>
<i>D2-1</i>	<i>Advanced Design Concept DAMOCLES+</i>	<i>3</i>	<i>3</i>
<i>D2-2</i>	<i>DAMOCLES+ extended exhibition constructed</i>	<i>4</i>	<i>4</i>
<i>D3-1</i>	<i>Logistics Plan</i>	<i>4</i>	<i>4</i>
<i>D3-2</i>	<i>Finalised Itinerary</i>	<i>12</i>	<i>12</i>
<i>D3-3</i>	<i>Exhibition installed at venues</i>	<i>4-21</i>	<i>4-21</i>
<i>D4-1</i>	<i>Communication and Outreach Plan</i>	<i>3</i>	<i>-</i>
<i>D4-2</i>	<i>Web content</i>	<i>3-24</i>	<i>12</i>
<i>D4-3</i>	<i>Media articles</i>	<i>3-24</i>	<i>12</i>
<i>D4-4</i>	<i>Brochure for the Exhibition (in 10 languages)</i>	<i>3-10</i>	<i>10</i>
<i>D4-5</i>	<i>Exhibition Poster graphics and layout (in 10 languages)</i>	<i>3-10</i>	<i>12</i>
<i>D5-1</i>	<i>Logistics Centre</i>	<i>3</i>	<i>3</i>
<i>D5-2</i>	<i>Finalised agreements with identified host venues</i>	<i>3-12</i>	<i>12</i>
<i>D5-3</i>	<i>Project report(s) on impact of the activity</i>	<i>5-24</i>	<i>12</i>

**MAIN SOURCES**

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DOE Consortium (2006) Description of Work. Annex I  
 DOE Consortium (2008) An introduction to Damocles Mobile Exhibition  
 DOE Consortium (2009) Annual Report  
 DOE Consortium (2007) Annual Report – Deliverables Report

## **EXPLORING THE GROUND - FOSTERING SCIENTIFIC UNDERSTANDING IN PRIMARY SCHOOLS - "EFSUPS"**

**Framework Programme: FP6**

**Action line/Part: PART C: STEPPING UP THE SCIENCE/SOCIETY DIALOGUE AND WOMEN IN SCIENCE**

**Activity: 4.3.4 Scientific and technological culture, young people, science education and careers**

**Area: 4.3.4.3 (a – School science teaching practice)**

**Dimension: SCIENCE LITERACY**

**Tool: Specific Support Actions**

**Project Call For Proposal: FP6-2005-SCIENCE-AND-SOCIETY-16**

**Status: Closed**

**Total cost: € 226 986**

**Total EU funding: € 226 986**

**Website: <http://www.teaching-soil.eu>**

**Period: 01/11/2006 - 31/10/2008**

**Subjects: science education in primary schools**

**Project ID and Acronym: ID: 42894, ACRONYM: EFSUPS**

### **BACKGROUND AND CONTEXT OF THE PROJECT AND STRATEGIC NEEDS**

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Soil issues have only low priority in primary school education and there is a need to raise the general understanding of soils and environmental issues affecting soils through primary school education and new innovative ways for. Since the results of the Pisa studies have been published the promotion of scientific understanding in primary schools received increasing attention. The subject 'soil' with its various facets and areas of practice therefore presents itself as ideal. The subsoil conditions in the surroundings of the children are very different: roads, floor plates, garden soil, grassland, sandy soil in the sand box, etc. This is leading to different experiences. Children gladly work with sand and earth. They have a broad field for experimentation that however emerges out of the focus of teaching and learning when they grow up. An appropriate curriculum, for example, for kindergartens regarding soil related issues does not exist. Early childhood educators are often isolated regarding questions of conversion of scientific education into their area of education profession.

### **SPECIFIC PROJECT OBJECTIVES**

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The EFSUPS project aimed at developing and testing specific components for primary school and preschool education, which promote the scientific literacy regarding soil issues of children in the basic school age and enlarge their skills by expanding its activities to a target group of pupils from 5 to 8 years age. In this way the different ages of entry to the public school system in the different European countries are covered. The main objective of the project website which was developed, was to disseminate innovative teaching tools, to support teachers and educators in different countries across Europe, to facilitate the exchange of experience in teaching about soil issues and to promote connection among teachers, educators and project partners.

#### **SaS/SiS Programme objectives/Activity Lines**

The project did not aim at the work programme's objective of "raising awareness of both scientific advances and citizens' concerns about their societal impacts" but was rather aiming at the second objective "to promote young people's interest in science" in particular in childhood education.

#### **SaS Action Plan**

EFSUPS has been relevant for action 14 (Support Science Teacher Education Development in Europe) as it promoted lasting relations and networking between primary school teachers. It also has been supportive for action 16 by promoting "more attractive methods for science education in schools" (e.g. by exchange of methods, provision of teaching modules, worksheets and teaching instructions).

### **PROJECT RESULTS AND OUTCOMES**

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One of the main project outcomes was a website and web platform. In designing the website, two volunteers were involved, both student members of Intermediu Bucharest. Another volunteer (student trainee) participated as photographer. The webpage is the result of team cooperation, each partner contributed with suggestions and texts. The webpage and -platform is designed to be easily accessible and user friendly. The EFSUPS website gives an overview of the progress of the project since August 2007, and offers a forum for dialogue between participating primary schools and kindergartens. It is as well as platform for the exchange of experiences and project results: <http://www.teaching-soil.eu> and <http://www.exploring-the-ground.eu>. The prepared teaching material is accessible

through the web platform in different language versions, e.g. English, Romanian, Hungarian, German, French and Spanish. An overviewing chart describing the teaching media in detail provides a clear picture of the specific teaching modules, worksheets and teaching instructions and how they are connected with each other.

An evaluation report on the experiences of teachers and primary school pupils who took part in the advanced school trainings and seminars aimed at analysing the effects of the novel curriculum developed and to understand if the stated goals of the teaching material were accomplished. More specifically, it was reviewed how the curriculum was by the teachers and how it was perceived by the children: what are the potential problems or deficiencies, or the success or failure factors of using the novel 'Dig and learn' curriculum. The predefined key areas explored in this evaluation included gender balance, scientific understanding, experimental learning and problem-orientation (didactics), education for sustainable development, feasibility and manageability of the curriculum.

In Romania for example, teachers considered this type of curriculum more like an important step to a new way of teaching on nature issues rather than as teaching material fostering scientific literacy for the primary school age. In Hungary, teachers reacted positively to the theme-based approach to learning. They found the teaching material understandable and well-structured which initiates personal development, learning with mind and body; using different senses for making sense of the world through group work and fieldwork. In Germany, teachers reacted differently. Some of them were already used to environmental education while others learned about this specific kind of education during the testing and spent a lot of time with teaching preparations. In the future, they intend to do more of such experiments and excursions, especially in cooperation with higher education organizations, because they experienced that preteen children in primary school can be promoted and supported in many different ways. They also asked for more teaching and training materials with detailed tasks for the children to engage in.

One of the weak points that was not considered by the project is that early childhood educators and primary school teachers sometimes have a low professional status, and are not trained to transfer science literacy and education, and lack sufficient knowledge on soil and nature issues as such. The testing of the teaching material on soil issues gained positive feedback and enthusiasm from the side of the children involved. Soil is an important and easy to experience part of early childhood life. Scientific understanding was achieved through experiments. These experiments were developed in a way that indicates in itself if the pupils understood the topic. The teaching material helped learning through gathering observable and measurable evidence and in making distinctions (differences in components, colour, smell), to understand rational links between reason and result. "The *Dig and learn* curriculum creates various occasions to live up to sustainability education by helping the teacher to make the most of it." The teaching material brings the world of nature closer to children and teachers them to pay attention. Children were made aware that they and their families should make an important contribution to sustainable development. The family education profile is very important. Some children were already used to employ instruments as magnifying lens, shovels, etc. - for these children it was easier to understand the 'scientific' aspects like why water is flowing faster through gravel than through sand and garden soil. It was discussed to broaden the Dig and Learn Curriculum and to develop a series of teaching activities dedicated to science education of primary school teachers on nature issues.

In general, it had been possible to transfer the teaching material in the local education context. The local teaching cultures were simply adaptable to the requirements of the *Dig and Learn* curriculum. Teachers found it trouble-free to usefully complete or further develop the materials for their own purpose. From a technical point of view the curriculum is feasible. Almost all equipment is available in an everyday household or can be made from simple materials or even waste. All necessary materials are easy to purchase and so the 'Dig and learn' curriculum can as well be applied in financially less supported schools. The missing Internet access of many primary schools and kindergartens may restrict to get access to the online teaching materials. This will be considered when planning further dissemination activities.

The Description of Work has been very straightforward with a very clear agenda and set of objective in the framework of a moderate budget. We could not find any evidence that any major achievements have not been met by EFSUPS.

### **Main achievements according to Programme objectives**

In relation to the science-society programme objectives the EFSUPS project aimed at a very specific target group in the education system (primary and pre-school education), which may deserve more attention. Insofar, the EFSUPS project made a specific contribution to the science-society programme objectives by promoting scientific literacy and education culture across Europe. The EFSUPS project covered objectives of the science literacy and education dimension in the science-society action area by making a contribution to science education and by laying the foundation for science literacy at an early stage of childhood in kindergarten and primary schools. With regard to the Science and Society Action Plan the EFSUPS project is addressing action 15 on the development and dissemination of new teaching tools: "Teaching methods in general and of scientific subjects in particular have a major impact on the attitude of young people to sciences. The development and testing of education methods designed to stimulate youngsters' interest in science should be promoted at the European level, by innovative concepts and interdisciplinary projects attracting children in primary and secondary schools". The impact expected in the work programme of enhancing "interest in scientific culture, education and careers, particularly among young people" seems to be fully plausible.

### **Main achievements according to SaS Dimensions**

The main achievement in the context of the SaS dimension of science education and literacy seems to be that it involved children at a very young age not just by theoretical training but with appropriate "dig and learn" approach. By

targeting children it has been a bit off the mainstream discourse on citizens involvement and interaction, but it can be seen as a contribution for laying the foundation of a scientifically literate public.

### **DISSEMINATION AND ENGAGEMENT ACTIVITIES AIMED AT TRANSFERRING THE PROJECT RESULTS TO WIDER COMMUNITIES**

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In relation to the moderate budget EFSUPS dissemination activities have been above average.

Dissemination activities for the EFSUPS project were performed on different levels and addressed different audiences. The media and methods used have been internet via own project website as well as posting videos and project information on other websites, press releases, poster and brochures, presentations in seminars, workshops and conferences, personal talks and TV and radio broadcasts. The audience addressed have been teachers and educators, special interest groups such as teachers associations or 'Wissenschaft im Dialog (WiD)' platforms, NGOs, environmental action groups etc., students in teaching professions and researchers, other projects such as 'Science on stage', but also the general public. All workshop, seminar and conference activities have been accompanied by press releases.

The project website was designed by Intermediu Bucharest (Science Shop). It was developed, in a preliminary stage, in English. Later the website the teaching materials developed was provided as well in other languages. They were translated to Romanian, Hungarian, German, Spanish and French. The teaching material is freely accessible on the project website: <http://www.teaching-soil.eu> or <http://www.exploring-the-ground.eu>. All materials can be used in teaching activities in primary schools and kindergartens. When using the material a reference quotation is expected. Teachers and early childhood educators can select and download the teaching instructions on soil issues. The teaching materials provide a time schedule, as well as objectives for each teaching and training session including the practical experiments. Instructions for realizing the experiments and to provide the equipment are given with the materials.

### **PROJECT IMPACTS**

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#### **Potential impact**

Two of the 5 partner organisations belong to the top 5% of the most central organisations in the overall Framework Programme 6 network (St. Istvan University and Universitatea Politehnica din Bucuresti).

According to the indicators used in this study there has been no indication of any scientific nor attractiveness

- **Scientific impact:** An analysis of the information on scientific publications related to the project (the number) and their quality in terms of impact factor of the journal and in terms of actual citations (google scholar) was negative. This may not be surprising as the audience of the EFSUPS have been children, primary school teacher and kindergarten instructors. It is entirely possible that the involved scientists published journal articles on the basis of EFSUPS results, but in that case they were not identifiable as such (e.g. due to missing references to the project).
- **Social media impacts:** The analysis of the social media posts was negative. The project results generated no "echo" in the social media. Again, this is not surprising the project was running between 2006 and 2008. At this time social media postings did not play the same role as they have today. Primary school teachers and early childhood educators may in 2006 to 2008 not as literate in using social media.
- **Organisational and institutional impact:** According to an interview with the project coordinator, it had been highly instructive to learn about the development of primary school and early childhood education curricula. Especially for the science shop it had been an asset for the development of their further educational activities. The website is still operational.
- **Public policy impact:** It is difficult to assess if the EFSUPS project had an impact on school education policies at the regional (federal state) or national level. However, it can be assumed that the project motivated to develop similar curricula as well on other nature related issues as it was demonstrated by EFSUPS. The discussion, particularly raised in the evaluation by Romanian teachers, points in this direction.

### **PATH-BREAKING ADVANCEMENTS**

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The EFSUPS project presents a path-breaking advancement as it is addressing a target group for science education and literacy that is often overlooked: children in the preschool/ kindergarten and primary school age. The EFSUPS project approached new ways of research and transferring knowledge and practice by developing teaching and training materials jointly with teachers and early childhood educators from different European member countries and involving the children addressed already at an early stage. Although the co-creation approach was not prominently referred to at the time (FP6-SaS programme), the EFSUPS project with its interactive approach points already in this direction.

### **EU ADDED VALUE OF THE PROJECT**

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The EFSUPS project had a high EU added value. Partner organisations of three European member states were involved. A curriculum and teaching materials on soil issues for primary school teaching and preschool/ kindergarten

education were jointly developed and translated into 5 European languages. The example of jointly developing curricula on nature issues at a European scale is of high significance to further institutionalize science education across European member states – in EFSUPS for preschool/ kindergarten and primary school education. The website is still giving access to the curriculum and the multilingual teaching materials. The EFSUPS project motivated other joint European activities on science education and literacy in nature and sustainability issues across Europe.

## PARTICIPANTS AND RESEARCH TEAM

### Participants

Number of participants: 5

Number of countries involved: 3

	Type	Country	Role	Previous participations to FP
WISSENSCHAFTSLADEN BONN	OTH	DE	Coordinator	1
SZENT ISTVAN EGYETEM - ST. ISTVAN UNIVERSITY	HES	HU	Participant	1
FACHHOCHSCHULE LIPPE UND HÖXTER (UNIVERSITY OF APPLIED SCIENCES)	HES	DE	Participant	1
UNIVERSITATEA BACAU	HES	RO	Participant	1
UNIVERSITATEA POLITEHNICA DIN BUCURESTI	HES	RO	Participant	1

### Team Composition

Team Size: members\*

GENDER				
Female		Male		Unknown
73,0%		27,0%		0,0%
SENIORITY				
Average		Junior		Senior
18,0%		9,0%		73,0%
PhD				
No			Yes	
55,0%			45,0%	
BACKGROUND				
Applied Sciences	Health Sciences	Humanities & Social Sciences	Natural Sciences	Unknown
0,0%	0,0%	55,0%	36,0%	0,0%

## DELIVERABLES AND PUBLICATIONS

DELIVERABLE NO.	DELIVERABLE NAME	DUE DATE OF DELIVERY (month)	ACTUAL SUBMISSION DATE: (month)
1	Catalogue with validated material	30.04.2007	07.06.2007
1b	Evaluation on the practical period	30.06.2008	18.08.2008
2a	Preliminary curriculum for general knowledge instruction "soil"	30.09.2007	08.11.2007
2b	Final curriculum for general knowledge instruction "soil"	30.10.2008	04.11.2008
2c	Preliminary teachers' guide with toolkit	31.10.2007	08.11.2007
2d	Final teachers' guide with toolkit	31.10.2008	04.11.2008
3a, 3b	Pre-test "Train the teacher" and "seminar at Schools"	31.10.2007	29.01.2008
3c	National seminars "Train the teacher"	30.11.2007	29.01.2008
3d	National seminars at schools	30.04.2008	30.05.2008
4d	Website launch	31.08.2007	19.11.2007
4d	Pupils contribution to website	30.10.2008	06.02.2009
4f	Translation	30.10.2008	06.02.2009
4g	Three final workshops	31.10.2008	##.##.2008
5a	Minutes of the kick-off meeting	30.11.2008	11.12.2006
5b	Minutes of 2nd steering committee meeting	31.05.2007	28.06.2007

5b	Minutes of 3rd steering committee meeting	30.06.2008	06.08.2008
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Publication s no.	PUBLICATION	LINK (when available)
	Norbert Steinhaus. "Publishable Final Activity Report"	<a href="http://cordis.europa.eu/docs/publications/1256/125670381-6_en.pdf">http://cordis.europa.eu/docs/publications/1256/125670381-6_en.pdf</a>
	<b>6 - 7 June 2008</b> - 4. Symposium "Educatie pentru un mediu curat" [Education for a clean environment]	<a href="http://www.teaching-soil.eu/files/Educatie%20pt%20mediu%202008%20-%20Sa%20cunoastem%20solul.pdf">http://www.teaching-soil.eu/files/Educatie%20pt%20mediu%202008%20-%20Sa%20cunoastem%20solul.pdf</a>
	<b>June 2008</b> - Final workshop for the presentation of projekt results, Hungary	<a href="http://www.humusz.hu/download/sali/Salata_2008_augusztus.doc">http://www.humusz.hu/download/sali/Salata_2008_augusztus.doc</a> <a href="http://www.kokosz.hu/index.php?option=com_content&amp;task=view&amp;id=285&amp;Itemid=75">http://www.kokosz.hu/index.php?option=com_content&amp;task=view&amp;id=285&amp;Itemid=75</a>
	<b>May 2008</b> - Project presentation at the Cuexpo 2008 - "Community-University Partnerships: Connecting for Change", Victoria BC, Canada	<a href="http://www.teaching-soil.eu/files/Diq%20and%20learn%20for%20CUexpo%202008.pdf">http://www.teaching-soil.eu/files/Diq%20and%20learn%20for%20CUexpo%202008.pdf</a>
	<b>27 - 29 March 2008</b> - Project presentation during the workshops "Training and mentoring of science shops" (TRAMS), under FP6-2003-Science-and-Society-7, Moeciu-Bran, Judetul Brasov	<a href="http://www.teaching-soil.eu/files/Plakat%20EFSUPS%20Kin deruni%20Wien.pdf">http://www.teaching-soil.eu/files/Plakat%20EFSUPS%20Kin deruni%20Wien.pdf</a>
	<b>29 August - 1 September 2007</b> - Third Living Knowledge Conference, Paris	<a href="http://www.teaching-soil.eu/files/Poster%20Paris%20Plak at%20Efsups%20LK3.pdf">http://www.teaching-soil.eu/files/Poster%20Paris%20Plak at%20Efsups%20LK3.pdf</a>
	3. Symposium "Educatie pentru un mediu curat" [Education for a clean environment], Politehnica University of Bucharest, Bucharest	<a href="http://www.teaching-soil.eu/files/Poster%202007%20Educatie%20pt%20mediu.pdf">http://www.teaching-soil.eu/files/Poster%202007%20Educatie%20pt%20mediu.pdf</a>
	<b>3 March 2007</b> - 1. Presentation of the "Exploring the ground"	<a href="http://www.teaching-soil.eu/files/Efsups_Flyer_en_old.pdf">http://www.teaching-soil.eu/files/Efsups_Flyer_en_old.pdf</a>
	<b>14 Februar 2007</b> - Articiel in Bacaus local newspaper and presentation of the project	<a href="http://www.teaching-soil.eu/files/Ziarul_de_bacau.pdf">http://www.teaching-soil.eu/files/Ziarul_de_bacau.pdf</a>
	<b>December 2006</b> - Articiel to "EU-Project Kinder lernen das Experimentieren" [EU-Project: Children learn experimenting] in WILA inform No.53 (12/2006) - Presentation of the key objectives of the project	<a href="http://www.teaching-soil.eu/files/WILA_inform_53_12_2006.pdf">http://www.teaching-soil.eu/files/WILA_inform_53_12_2006.pdf</a>

## MAIN SOURCES

eCorda  
CORDIS database  
OPENAIRE database  
Project deliverables  
Project's description of work  
Project Website



## **SPACE WEATHER AND EUROPE AND EDUCATION TOOL WITH THE SUN "SWEETS"**

**Framework Programme: FP6 - SaS**

**Action line/Part: C – Stepping up the science/society dialogue and women in science**

**Activity: 4.3.4 Scientific and technological culture, young people, science education and careers**

**Area: 4.3.4.1 Promoting science and scientific culture**

**Dimension: Science Literacy**

**Tool: Specific Support Action**

**Project Call For Proposal: FP6-2005-Science and Society-19**

**Status: Closed**

**Total cost: €500,185**

**Total EU funding: €500,185**

**Website: <http://sweets2007.eu/> (inactive)**

**Period: 01/01/2007 – 31/12/2007**

**Subjects: Education and Training – Social Sciences and Humanities**

**Project ID and Acronym: 44532 – SWEETS**

### **BACKGROUND AND CONTEXT OF THE PROJECT AND STRATEGIC NEEDS**

The knowledge about space and related phenomena is not spread and deep among the large public. People usually think of space as a vacuum, but solar activity and cosmic rays generate what's known as space weather, an astronomical phenomenon whose study is by nature interdisciplinary, encompassing various fields of physics, engineering and human activities. In addition, similarly to the weather near Earth's surface, space weather can sometimes cause problems, with effects in everyday life and activities (e.g. failures in satellite navigation and telecommunication, electricity cut off).

Europe has achieved significant capabilities in the fields of Space Weather and solar science, with increasing collaboration among the EU Institutions and Member States and the European Space Agency in space related fields. Despite the importance of Space Weather, and its significance for several scientific, commercial and security sectors all over Europe, information remains very limited and largely ignored, and activities to raise awareness among the general public are lacking.

### **SPECIFIC PROJECT OBJECTIVES**

The SWEETS project aimed at **promoting and raising public awareness** on the phenomenon of Space Weather, solar and heliophysics science, showing people – during science festivals and events – the impacts of space weather and the sun on everyday life and technology. In order to do that, the project carried out activities targeting all types of media and using different tools such as tours, demonstrations, web contents including an online contest, targeting the large public across Europe.

SWEETS project also aimed at promoting Europe's scientific excellence in the field of space weather, solar and heliospheric research, contributing to promote cooperation between ESA and EU institutions and Member States in space-related fields, building on projects under development (e.g. the GALILEO navigation satellite system).

SWEETS also aimed to help involve more women in science, organising events with women as moderators or co-moderators, with the goal of attracting female pupils and young women to science, physics and space weather.

The SWEETS Consortium was composed of seventeen members – mainly research and academic institutions – located in Germany, Netherlands, France, Belgium, Poland, Austria, Slovakia, Latvia, Portugal, Norway, and Turkey.

The project was also supported by the European Space Agency, two EU/ESF COST actions, and the International Heliophysical Year 2007.

### **SaS/SiS Programme objectives/Activity Lines**

All SWEETS objectives were therefore in line with those of the 6<sup>th</sup> Framework Programme "Science and Society" and the relevant Action Line, namely "Promoting science and scientific culture". The objective of raising awareness of scientific advances and promoting interest in science is pursued with activities to strengthen the European dimension of Science Weeks, promoting public scientific and innovation culture to a wide as possible section of European public, and to increase the impact of science and its uses on the daily lives of European citizens.

### **SaS Action Plan**

The project objectives are also in line with the Science and Society Action Plan, in particular with the objective of "Promoting scientific education and culture in Europe", and the actions related to public awareness (1.1), dissemination of scientific information, and science weeks in Europe, in line with Action 7 (Network scientific events throughout Europe). More specifically, SWEETS:

- Used visual materials to provide a larger European public with information;
- Showed people in the streets and at science festivals the impacts of Space Weather and the Sun on everyday life, humans and technology;
- Promoted Europe's scientific excellence in the field of Space Weather, solar and heliospheric research;
- Aimed to help promote cooperation between ESA;
- Organised festivals and participated in science weeks with European outreach in 2007, presenting the project work and deliverables;

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## PROJECT RESULTS AND OUTCOMES

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### Main achievements according to Project objectives

The main achievement of the project was the organisation and realisation of a series of events as well as the production of activities and materials to raise awareness among the general public of the importance of space weather and its impact on daily life. In particular, the SWEETS project produced:

- A Space Weather DVD in 7 languages, for educational and promotional purposes, available free of charge;
- Space-weather-on-tour mobile exhibition: a bus tour guided by high-level scientists through 22 cities in 10 countries (AT, BE, DE, FR, LV, NL, PL, PT, SK and Norway), combining a poster panel exhibition, an interactive and video exhibition, telescopes, demonstrating and supporting materials for observation;
- Space Weather Forum and Fair, organised during the European Science Week 2007, with a video streaming in real time for Australian viewers and a dance show based on Space Weather;
- The film "Breath of a Star", about European and international space weather activities. It was first shown during the SWEETS Space Weather Forum in Schwerin Palace (Germany) on 19 November 2007;
- The organisation of and participation in Science Festivals and events across Europe, in Amsterdam, Lisbon, Paris, Warsaw, Vienna among others;
- Activities and materials for educational purposes, including Forecast display maps (with a TV mirror system that can be described as a 3D model of the Sun), Space Weather Planetarium Shows in Poland and Portugal, and a Space Weather Web Quiz whose winner was invited to the Andøya Rocket Range to observe a rocket launch.

Overall, the material and activities developed by the project responded to its main objectives of promoting and raising public awareness on space weather, showing and presenting people the impacts of space weather through events, used to contribute to the European Science Week in 2007 as well.

Concerning the objectives of promoting the involvement of women in science and, in particular, space weather, the project did not seem to have produced large evidence on this ground, despite a talk on the role of women in space weather science in the Space Weather Forum organised during the European Science Week. Moreover, also considering the objective of increasing collaboration between ESA and the EU, it is difficult to understand whether the project produced any results on this, given the fact that SWEETS project was part of a larger framework of initiatives on Space Weather that continued across FP7 and H2020. It is true, however, that Space Weather has become in recent years a prominent part of the work of ESA.<sup>96</sup>

At the end of the project, SWEETS involved the public across the EU and other countries through a series of dedicated activities and events, informing people – in schools in particular – about Space Weather and its relevance for both everyday life and European research and development. No information was readily available for assessing the achievement of the project's long-term objectives.

### Main achievements according to Programme objectives

The project contributed to the promotion of science and scientific culture in Europe, in particular with activities (e.g. events, exhibitions) for the European Science Week, in order to public scientific and innovation culture to a wide as possible section of European public, in line with the objectives identified in the Science and Society Work Programme 2006 (Activity Line 4.3.4.1), pursuing the objective of enhancing the interest in scientific culture, education and careers.

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<sup>96</sup>[http://www.esa.int/Our\\_Activities/Operations/Space\\_Situational\\_Awareness/Europe\\_comes\\_together\\_for\\_space\\_weather](http://www.esa.int/Our_Activities/Operations/Space_Situational_Awareness/Europe_comes_together_for_space_weather);

[http://www.esa.int/Our\\_Activities/Operations/Space\\_Situational\\_Awareness/Eyes\\_on\\_our\\_Sun\\_ESA\\_opens\\_new\\_space\\_weather\\_centre\\_in\\_Brussels](http://www.esa.int/Our_Activities/Operations/Space_Situational_Awareness/Eyes_on_our_Sun_ESA_opens_new_space_weather_centre_in_Brussels).

As an example, the on-tour mobile exhibition covered around 23,000 km across Europe, 10 countries and generated a large interest: about 1,200 people visited the bus in Slovakia, 400 pupils in Warsaw while nearly 10,000 were estimated to visit the exhibitions during the IHY open doors at the Catholic University of Leuven.

### **Main achievements according to SaS Dimensions**

The very objectives of the project make it relevant for the dimension "Science Literacy", by pursuing the promotion of science and scientific culture, giving an increased importance to informal education and events, with activities targeting (not only) students being organized outside schools and similar places. The results in producing material and involving a large audience in events underlined the relevance of the project both in science promotion and science communication, with a specific target on highlighting the importance of science – in this specific case the effects of space weather – for everyday life.

### **DISSEMINATION AND ENGAGEMENT ACTIVITIES AIMED AT TRANSFERRING THE PROJECT RESULTS TO WIDER COMMUNITIES**

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The very nature of the project consisted of promotion and communication public events and activities, covering 10 EU Member States. SWEETS organised outreach and dissemination activities, including science festivals, a science forum and a space weather fair. The project seems to have implemented all foreseen dissemination activities (even if the DVD does not seem to be distributed).

The activities and results of the project were disseminated through different channels, targeting mainly the general public. Dissemination means included:

- **IT:** the project website ([www.sweets2007.net](http://www.sweets2007.net)) constituted the main repository of information on the projects, events and documents. The website was continuously updated until the end of the project;
- **Mass media and publications:** The project registered a good presence on the media, reported in various countries touched by the implementation and the activities. In particular, online news and media coverage were reported in Germany, Slovenia, Belgium – including TV coverage – Latvia, Poland – with experts' interviews on local public TV and radio – Portugal. In addition, the project produced a DVD (in 30-50 copies) in 7 languages, a film "The Breath of a Star" (no copies reported as distributed) and 13 bi-lingual poster panels;
- **Conferences/Workshops:** in addition to the events and activities organised, the First European Space Weather & Earth Environment Technology Fair was organised in November 2007 during the European Science Week. The goal of this fair is to bring together experts from industry, scientific institutes, and the public in order to enhance the awareness of space weather effects and to discuss appropriate countermeasures.

### **PROJECT IMPACTS**

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The SWEETS project was expected to have a great potential in increasing awareness and knowledge about the Space Weather among public – and in particular among school pupils – and its effects on everyday life. Given the relatively low knowledge about this phenomenon, and around the sun, more in general, the potential impact of the project is high.

In addition, the potential impact of the project is high – especially in terms of collaborations and dissemination – given that the Consortium is characterised by the presence of 4 members among the top 1% of the most "**central**" organisations<sup>97</sup>, increasing to 7 in the top 5%. However, to this centrality does not correspond a real attractiveness of the consortium members, with only two included in the Leiden ranking – and below the 350<sup>th</sup> place. This suggests that, if the project is likely to have a good reception and be linked to other projects afterwards, it is unlikely to produce real impacts beyond its conclusion.

The project actual impacts were:

- **Scientific impact:** the project seemed to have produced little to no scientific impact, since no relevant publications have been retrieved. This is despite the presence in the consortium of a number of a large and renowned scientific and research institutions, such as the European Space Agency, the KU Leuven and the Austrian Academy of Sciences, but not very attractive.<sup>98</sup> The limited scientific impact may be related to the very nature of the project, more focused on scientific promotion and awareness raising than production. The

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97 Being central in a network means that the organisations does not only participate in several projects in the FP but it also participate with other important organisations.

98 Potential attractiveness of the participating organisations to the project is used, in our study, to evaluate the potential of the project to produce publications and other scientific outputs.

project was however cited and presented on papers and other publications, even if for no real scientific purposes;

- **Institutional and organisational impact:** the project was included in the larger flow of projects and activities around Space Weather in Europe, developed by the European Space Agency and others. To this end, the project was supported by and cooperated with ESA, EU/ESF COST actions 724 & 296 and the International Heliophysical Year (UHY) 2007. The project was also a continuation of a tradition of European collaboration on the 50<sup>th</sup> anniversary of International Geophysical Year (1957-2007). For this reason its work must be included into this larger framework, and helped to initiate scientific collaboration between universities, governmental and industrial bodies in Europe towards education and public outreach in space weather related topics.<sup>99</sup> However, no real impacts seem to have been produced in terms of use of the tools and activities directly developed and promoted during the project.
- **Policy impact:** The project was included in a larger framework of projects and actions related to Space Weather. More projects were funded under FP7 on this topic, and also under H2020<sup>100</sup>. In this case, no evidence can be found that an actual impact has been produced.
- **Social media impacts:** The project did not produce any relevant social impacts in terms of social media listening buzz results. This may be in part due to the technology and social media development at the time of the project implementation (2007).

### **PATH-BREAKING ADVANCEMENTS**

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SWEETS project introduced some interesting elements in order to reach its objectives. Travelling exhibitions are an excellent mean to reach a wide and diverse audience in different countries, being able to replicate and – at the same time – adapt activities to the public, taking the message directly to the people on the street. In addition, the activities proposed to the public were extremely practical – e.g. the opportunity to observe the sun through telescopes, view space weather phenomena live from satellite feeds – and various, with demonstrations overseen by some of the European top.

Moreover, the project introduced a competition and fun component to promote public interest, by organising a Web-based contest on the topic of space weather, rewarding the winner with a ticket to watch a rocket launch at a facility on an island off the coast of Norway. The project introduced also the first European space weather multimedia dance show.

### **BEST PRACTICES**

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The SWEETS project was built and implemented in close cooperation with and supported by other actions, in particular EU COST 724 Action “Developing the Scientific Basis for Monitoring, Modelling and Predicting Space Weather”

### **EU ADDED VALUE OF THE PROJECT**

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The EU Added value of the project is likely to be positive. The participation to the Framework Programme allowed both the creation of an international consortium, fostering international cooperation with non-EU countries (Turkey and Norway), involving different types of organisation from eleven different countries to work on different types of activities to promote science and scientific knowledge to the large public across Europe.

### **PARTICIPANTS AND RESEARCH TEAM**

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This section presents some statistics on the project participating organisations and team structure. The figures are compared to average figures per dimension. Main variables include: type, country of origin and previous participation to FPs for both project coordinator and participants.

Sources: project reports and website (when available), project Description of Work, composition analysis, survey, interview, CORDA

#### **Participants**

Number of participants: 17

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99 Tulunay, Y. et al. (2013), *The COST example for outreach to the general public: I love my Sun*, J. Space Weather Space Clim. 3 (2013) A04.

100 Source: <http://www.spaceweather.eu/it/eu-fp7>.

Stock-taking and meta-analysis of Science in Society projects throughout FP6 and FP7  
Final Case Studies

Number of countries involved: 11

Name	Type	Country	Role	Previous participations to FP
Ernst-Moritz-Arndt-University Greifswald	Higher Education Institution	Germany	Coordinator	1
Sternwarte Greifswald ev	Higher Education Institution	Germany	Participant	1
European Space Agency	Research Centre	Netherlands	Participant	1
1a – First Applications for Space Weather Service, Research, Education and Culture	Private Commercial	Germany	Participant	1
Observatoire de Paris	Research Centre	France	Participant	11
Katholieke Universiteit Leuven	Higher Education Institution	Belgium	Participant	164
Space Research Centre, Polish Academy of Sciences	Research Centre	Poland	Participant	4
University of Szczecin	Higher Education Institution	Poland	Participant	1
Institute of Experimental Physics, Slovak Academy of Sciences	Research Centre	Slovakia	Participant	1
Austrian Academy of Sciences	Research Centre	Austria	Participant	14
Deutsche Tanzkompanie – Foundation for Traditional Dance in M-V	Other	Germany	Participant	1
Andøya Rocket Range as	Other	Norway	Participant	1
Austrian Research Centres gmbh – ARC	Research Centre	Austria	Participant	9
Middle East Technical University/Orta Doğu Teknik Üniversitesi Department of Aerospace Engineering	Higher Education Institution	Turkey	Participant	1
Institute of Astronomy of the University of Latvia	Higher Education Institution	Latvia	Participant	1
Centro de Investigação em Astronomia e Astrofísica da Universidade do Porto	Research Centre	Portugal	Participant	1
Technologiezentrum Fördergesellschaft mbh Vorpommern	Other	Germany	Participant	1

### Team Composition

Team Size: members\*

GENDER		
Female	Male	Unknown
5%	11%	84%
SENIORITY		
Average	Junior	Senior
5%	0%	95%
PhD		
No	Yes	
0%	100%	

BACKGROUND				
Applied Sciences	Health Sciences	Humanities & Social Sciences	Natural Sciences	Unknown
0%	0%	16%	16%	68%

\*The data are based on the analysis of the provided project's Description of Work.

## DELIVERABLES AND PUBLICATIONS

It presents the documents produced by the project (intermediate and final report, dissemination report) and any publication produced as direct consequence of the project.

### Project deliverables

DELIVERABLE NO.	DELIVERABLE NAME	DUE DATE OF DELIVERY (month)	ACTUAL SUBMISSION DATE: (month)
D1	Space weather DVD in 7 languages (Dutch, English, French, German, Polish, Portuguese and Slovak).	06/07	12/07
D2	Space Weather-on-Tour mobile bus	06/07	11/07
D3	Space Weather Forum/Fair Space Weather Forum, 19 November 2007, Schwerin Palace and Space weather Fair, 20-21 November 2007, Greifswald	11/07	
D4	Video streaming including video link to Australia	11/07	
D5	Dance Show "Sonnensturm" (Solar Storm)	11/07	
D6	SWEETS organized and participated in Science Festivals in several countries	02/07	12/07
D7	Space Weather Web Quiz	05/07	09/07
D8	Rocket Launch	08/07	
D9	Movie "Breath of a Star"	06/07	11/07
D10	Space Weather Planetarium Shows in Poland and Portugal	11/07	
D11	Forecast display maps	-	
D12	Spark Chamber, Gliding arc	06/07	12/07
D13	TV Mirror System	06/07	12/07

Publication s no.	PUBLICATION	LINK (when available)
1.	Jansen, F. (2009), SWEETS – Space Weather and Europe: an Educational Tool with the Sun, EGU General Assembly 2009, 19-24 April 2009, Vienna	-

## MAIN SOURCES

SWEETS Consortium (2007) Description of Work. Annex I  
 SWEETS Consortium (2007) Management Report  
 SWEETS Consortium (2007) Final Activity Report  
 SWEETS Consortium (2007) Dissemination Report

## **ADVANCED TECHNOLOGY MEETS SCIENCE AND CULTURE. USING ADVANCED TECHNOLOGICAL APPLICATIONS TO IMPROVE VISITORS EXPERIENCE IN MUSEUMS, SCIENCE CENTRES AND ARCHAEOLOGICAL SITES "DISCOVERY DAYS"**

**Framework Programme: FP6**

**Action line/Part: PART C: STEPPING UP THE SCIENCE/SOCIETY DIALOGUE AND WOMEN IN SCIENCE**

**Activity: 4.3.4 Scientific and technological culture, young people, science education and careers**

**Area: 4.3.4.1 Promoting science and scientific culture**

**Dimension: SCIENCE LITERACY**

**Tool: Specific Support Actions**

**Project Call For Proposal: FP6-2005-SCIENCE-AND-SOCIETY-19**

**Status: -**

**Total cost: 350.000**

**Total EU funding: 350.000**

**Website: <http://www.ea.gr/ep/discoverydays/>**

**Period: 01/01/2007- 31/12/2007**

**Subjects: Education and Training - Social Aspects**

**Project ID and Acronym: ID: 44547, ACRONYM: DISCOVERY DAYS**

### **BACKGROUND AND CONTEXT OF THE PROJECT AND STRATEGIC NEEDS**

Despite a general positive opinion about science, young people showed a falling interest in science matters due to the perceived lack of attractiveness and relevance to their everyday life. The EU has striven for raising public interest in scientific issues, especially among young people. A better understanding of the beneficial impacts of science and technological developments on everyday lives could support the active engagement of the wider public in scientific activities. A strategic solution to fill the **interest gap** and to provide a stimulus for further engagement, was to present science and scientific research through challenging 'games' combining intelligence, existing knowledge and innovation. Due to their popularity, museums and science centres played a key role. By using the technology of virtual reality (VR), augmented reality (AR) and mobile computation, researchers could provide a unique constructivist tool for on-site and on-line tours to provide people with contents of futuristic scenarios and visions to explore worlds and cultures, far both in time and space.

### **SPECIFIC PROJECT OBJECTIVES**

DISCOVERY DAYS aimed to **present the vision for the future operations** in museums, science centres and thematic parks in order to improve the experience of visitors (especially young people) through demonstrations of advanced technological applications. Therefore, the project planned several **pan-European science and cultural celebration initiatives** (Discovery Days) in different European Cities, culminating in the European Science Week 2007 (ESW2007). In detail, the project pursued the following specific objectives:

- To demonstrate to visitors of museums and science centres the **opportunities advanced technologies** (including VR, AR and mobile technological application) could offer to enrich their experience during visits and field trips;
- To **raise the European youth interests and awareness of science, culture and technology** through presentation and discussion of a rich collection of futuristic scenarios and visions;
- To **blend formal and informal learning** through a framework and to situate science and culture in real-world contexts;
- To **promote European cooperation in research** involving the New Member States and Candidate Countries in the ERA;
- To **spread scientific literacy** using European Media as communication channels of the project's activities to the wider European public and to promote the initiative of the European Science Week throughout the world;
- To **bring together project teams** from a wide range of technology, education and cultural fields to share visions.

The project objectives were relevant for:

- **ERA:** the project was intended to contribute to the ERA's priority of favouring the "optimal circulation, access to and transfer of scientific knowledge" primarily through interactive learning and technological demonstrations. By using the ECSITE and EUN network, the BM:BWK channels and selected partnerships, the project activities could be widely disseminated to researchers, teachers, schools and university students, science centres and museums from new Member States as well as Associated Candidate Countries. Thanks to a broadband infrastructure and the project website, DISCOVERY DAYS could be also experienced live from

remote locations. The use of such channels was strictly linked to the ERA's objective of achieving an "optimal transnational co-operation and competition"<sup>101</sup> through contacts among researchers across the EU.

- **Innovation Union:** The IU objective "Strengthening the knowledge base"<sup>102</sup> was core for the project. Pooling together national 11 European organisations, 180 Science Centres and Museums, governmental bodies and thousands of visitors, the project was expected to create synergies across Europe. The project supported connections between the scientific research community and society at large, facilitating the exchange of innovative ideas and the spread of scientific literacy.

### **SaS/SIS Programme objectives/Activity Lines**

The project was relevant for the programme objective to promote young people's interest in science and in up taking scientific careers as well as to increase public awareness of scientific and technological advances and citizens' concerns about their societal impacts. More specifically, DISCOVERY DAYS contributed to:

- increase knowledge about impact of science and its uses in the daily lives of European citizens;
- promote measures for improving the exchange of experiences and resources among organisers of national science weeks to enhance the European dimension and added value;
- address topics from multiple viewpoints integrating other fields of science, including, as necessary, the economic, social and human sciences;
- demonstrate the benefits to science and innovation of European co-operation in research partnerships.

### **SaS Action Plan**

The project was consistent with the SaS Action Plan objective of promoting scientific education and culture in Europe in the view of increasing awareness of the importance of scientific and technological progress in the public. Through its initiatives, events and in-site experiences, the project demonstrated the potential of advanced technologies to revolutionize the traditional operations. By providing information and practical examples, the project pursued the enhancement of knowledge of such applications in the public. Furthermore, Actions 7 and 8 of the SaS Action Plan stressed the importance of establishing synergies between scientific events throughout Europe including Science Weeks and other events to share best practice and experiences. According to the description of work, the DISCOVERY DAYS initiatives were expected to reach their peak during the European Science Week 2007. Thus, they strictly linked to it.

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## **PROJECT RESULTS AND OUTCOMES**

### **Main achievements according to Project objectives**

As underlined in the project reports, a variety of scenarios were designed to offer users a **unique experience** including visualisations of physical phenomena and in-site augmentations of ancient monuments. On the whole:

- 9 major **DISCOVERY DAYS events held in European Cities** (Austria, Belgium, Finland, Greece and Portugal) where a rich collection of examples and contents of futuristic scenarios and visions were presented and discussed in detail.
- The 4<sup>th</sup> Intuition **International Conference** and Workshop "Virtual Reality and Virtual Environments", held in Athens, 3-5 October 2007 and 2 follow-up events in Denmark and Portugal.
- 6 events targeting the general public and young people directly, while 3 organised for specific audiences including policymakers, science centre and museum professionals, education professionals and stakeholders identified as multipliers and whose role was to transfer the impact of such events to a wider audience.

In regard to the objectives announced in the Description of Work, Discovery Days achievements were significant. In fact, the project:

- **Demonstrated advanced technologies** and their potential in enhancing the visitor's experience;
- **Demonstrated the future possibilities** offered by technological evolution to professionals and the generic public through potential applications of the technology demonstrated;

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<sup>101</sup> COM(2012) 392 final.

<sup>102</sup> COM(2010) 546 final.



- **Indirectly raised the awareness of scientific issues in European youth** through the involvement of teachers and science museum professionals as the main events' target audiences thus reaching also young people (between 30% and 50% of the visitors);
- **Presented a framework blending** formal and informal learning. Their relationship was the core focus of Teachers Conference Discovery Day at Mechelen, Belgium;
- **Promoted European cooperation in research** demonstrating the benefits to science and innovation of European co-operation in research through science communication and science education activities;
- Contributed indirectly to the development of a **scientifically literate** generation targeting specific events' audiences;
- **Brought together individuals from a range of backgrounds** to reflect on the possible common grounds of technology, education and science.

The feedback received by students participating to the events was very positive.<sup>103</sup> Especially the augmented reality exhibits were enthusiastically described in individual assessments as in the case of the exhibition of Heureka in Estonia where students reported positive impressions in their short accounts. The evaluation of the Finnish events too confirmed the positive assessment provided by visitors, young people and also by teachers who appreciated the possibility to foster the links between schools and science centres.

On the whole, the Discovery Days did not just serve as science demonstrator but as interactive and vivid initiative where users equipped with powerful real scale research tools, could become the researchers, the seekers and finally the leaders of the scientific quest.

#### **Main obstacles**

Some risks for the project implementation derived from: the short project duration (12 months); the tight time and budget constraints on project's tasks; the specific time schedule for the discovery days and the specific places chosen for application, realisation of dissemination activities. However, the successful implementation of the project was ensured by the mobilisation of a multidisciplinary and multicultural consortium with expertise in culture, science and communication (Museums, Science Centres), visual and mobile technologies, international collaboration as well as dissemination and exploitation.

#### **Main achievements according to Programme objectives**

The project outcomes contributed to attain the expected results in terms of enhanced interest in scientific culture, education and careers, particularly among young people. In fact, visitors to the Discovery Days had a first-hand opportunity to perform and experiment with scientific research and directly test its impacts on society and everyday life (e.g. on science education, on learning environments, on ICT, on entertainment, on historical and cultural information and learning). People could freely choose among the phenomena presented in real world contexts based on their prior knowledge, interest and expertise. In addition, the project promoted adequate measures in order to enhance the international exchange of experience and resources. To achieve that, it exploited the critical mass of European expertise achieved in the different areas of science communication and facilitated the international co-operation among organizers of national and international events within and outside ESW2007. Finally, it contributed to step up the science/society dialogue- by establishing a virtual community that enhanced the interaction between science and society.

#### **Main achievements according to SaS Dimensions**

DISCOVERY DAYS was directly related to the science literacy SaS dimension and to its more mature concept focusing on informal education outside schools. The project main aim was to create a new culture of operations in science museums improving the visitors' experience. The project was thus in line with the major trend identified for the dimension as it contributed to the shift from a deficit model – rooted in the assumption that science was too complicated for the general public- to the dialogue model – where citizens were invited to participate directly to the scientific and technological development process through interactive dialogue which allowed to express their needs.

The project also addressed the role of women in science, belonging to the gender and science SaS dimension, while debating on the gender differences in science education and learning process as a topic of a conference. Video documentation of the events was freely available online thus the project activities provided an input also the concept of open access to science.

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<sup>103</sup> Discovery Days Final Report (2008).

## **DISSEMINATION AND ENGAGEMENT ACTIVITIES AIMED AT TRANSFERRING THE PROJECT RESULTS TO WIDER COMMUNITIES**

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The project developed a **communication strategy** and a **dissemination strategy** to ensure that information was tailored to different target audiences. The communication strategy, focussed on the public, while the dissemination strategy, targeted professionals in the field of science communication, education and civil society. At least 50.000 visitors (including the "Virtual Visitors") of science centres, parks and museums were estimated to get involved in the proposed activities while 300 participants were expected to attend the three day International Conference as the Final event during the European Science Week 2007.

The communication plan covered the Local Events and the project's Final Event with adequate and effective communication to attract the maximum number of people and to answer the audience needs at all levels. The main **communication means** used both at project's level and at local level through the events' organisers were:

- **Project website** (<http://www.ea.gr/ep/discoverydays>) containing information on the Discovery Days Events, on the contents, main outcomes and links to the websites of participating organisations, the Commission and other relevant bodies;
- **Video News Release (VNR)** providing audiovisual content about innovative research results, facts and information for TV stations across Europe, consisting of a 90 English-spoken edited teaser and a larger set of rushes for broadcasters edit. It was available on youris.com one of the service providers of the pan-European TV station Euronews.

The **dissemination strategy** mainly used the EUN and Ecsite channels to reach the largest possible target audience for the events due to their multiplier effect – each of their member institutions had contact with wider audience. The Ecsite counted 385 member institutions attracted more than 30 million visitors in their venue, and many millions more through their websites (more than 60% of visitors were under 25, and almost 40% of them were school students). The EUN partner represented 31 Ministries of Education in the EU, which made possible the involvement of responsible authorities within the EU in the dissemination and exploitation of projects activities as well as in the use of all the demonstrated contents and technologies. The main **dissemination means** were:

- **Ecsite website ([www.ecsite.net](http://www.ecsite.net))** with updated information, a dedicated Discovery Days project page and a link to the project website. The Ecsite Conference website drew 3.890 visits in the month of May 2007 alone.
- **E-newsletter bulletins** sent both by EUN and Ecsite with descriptions and reminders of the events. Monthly e-Newsletters were sent to Ecsite's member institutions directly involved in science centres and museums, but also to an additional mailing list of 2500 contacts in the field of science communication including policymakers, NGOs, academics, exhibition designers, journalists and industry; a EUN bulletin on Discovery Days in their Teachers Newsletter was sent to 50.000 teachers across Europe;
- **Project presentations, Video and Radio documentation and posters** were also used for local dissemination of each event.

Thanks to the echo achieved, the Discovery Days events attracted several hundreds of visitors to science centres and a wide variety of experts such as policy-makers, stakeholders, teachers and educational servers. However, visitors/participants were counted at each event but not at aggregated level for the project. For instance, the **Discovery Days final event** held in Athens (9<sup>th</sup> and 10<sup>th</sup> of November 2007), brought together 70 researchers from all around the world and 2.000 teachers from Greece, thus allowing the sharing knowledge and experience about the use of ICT in education.

On the whole, the strategic communication campaign and dissemination activities contributed both to circulate news on the Discovery Days events and to raise European awareness of the potential of advanced technologies in enhancing the visitor's experience.

## **PROJECT IMPACTS**

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Although the design of the DISCOVERY DAYS project was ambitious, key features of the project consortium increased the potential impacts: the project consortium possessed extensive relevant experience (not only scientific and technological, but equally on science communication); most partners had a long record of successful cooperation; many of the applications that will be exhibited were already fully tested and operational and most of the required material was already available and needed only adaptation.

Looking at the consortium, 2 out of 11 participants were among the top 10 of the most central organisations in the overall FP network (betweenness ranking). The Project Coordinator (Q-PLAN) had already co-ordinated two ESW 2004 projects (School Foresight and Shield) counting 30.000 participants and coordinated the implementation of a European Science Contest in the ESW 2005 (Sky Watch). As for the others : the ESCITE was an expanding network; FHW was one of the greatest Cultural Thematic Parks in Europe; the BM:BWK had an exceptional experience in education, science and culture projects; GEDEON and iCons had already a lot of partnerships in EU; BARCO was a global leader in the Virtual and Augmented reality technologies.

Looking at project's activities, a positive assessment of the Discovery Days was provided by visitors especially young people and by teachers' evaluations due to links set between schools and science centres. The strategic communication campaign and the dissemination events multiplied the project positive impact as explained in the dissemination section. Other actual impacts could be classified into:

- **Scientific impact:** there were no EU relevant publications or citations.
- **Social media impacts:** there was no relevant social impact in terms of social media listening ("Near Zero Buzz" collection).
- **Institutional and organizational:** many networking activities were carried out during the Discovery Days allowing reinforce the cross-border and cross-sector relationships among partners in the European Educational and Research Community. The active involvement of public to broad multinational activities in close co-operation with strong local partnerships was promoted. For instance, the Discovery days in Heureka (FI) were organised with Ellinogermaniki Agogi (GR) and Energiakeskus (EE).
- **Policy impacts:** the Discovery Days project promoted an increased **public scientific culture** to discrete large target groups across Europe (mainly the youth) through a new **culture for the future operation of museums** science centres and thematic parks. By involving an extended network of interested parties - citizens, scientists, policy makers and authorities- the project enabled the society to have a better-informed and stronger influence on the future development and governance of science, culture, technology and innovation. The project's activities also influenced the debate on social cohesion and major EU policies regarding: a) e-Europe 2005 (i2010), b) Education and learning, c) Science and Society Action Plan and d) Science in Society Agenda: 2007-2011.

#### **PATH-BREAKING ADVANCEMENTS**

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The Discovery Days project proposed an **innovative technologically advanced approach** to increase public scientific culture. It improved conventional visits to science museums, research centres, science thematic parks by using advanced and highly interactive visualization technologies in order to involve young people - school students and young researchers - in science, culture and technology. The project blend informal and formal learning to situate science and culture in real- world contexts and it promoted a **multidisciplinary concept** of learning which focused on many science, historical, cultural topics as well as art topics. In brief, the project introduced a new vision for the future operation of museums providing a "**feel and interact**" user experience, which allowed to learn "anytime, anywhere", open to societal changes and at the same time culturally conscious.

#### **BEST PRACTICES**

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The Discovery Days project intended to build on previous projects in the field as well as to establish links with other national or international research activities and projects within the ERA. A **clustering strategy** was implemented to promote the effective cooperation with other running projects supporting active synergies with RTD activities. Namely:

- CONNECT ([www.connect-project.net](http://www.connect-project.net)). The CONNECT project was a joint initiative of educational, cognitive science and technological experts, educators, and psychologists to research the possibilities of using advanced technologies (Virtual reality Augmented reality remotely controlled experiments, wearables and mobile devices) for educational purposes in order to facilitate school - museum collaboration.
- ARCHEOGUIDE ([archeoguide.intranet.gr](http://archeoguide.intranet.gr)). ARCHEOGUIDE was a novel mobile electronic guide aiming at helping visitors navigate in archaeological sites and offering them personalized augmented reality (AR) guided tours.
- ASH ([www.virtualcontrolroom.org](http://www.virtualcontrolroom.org)). The European Commission funded project IST-1999-10859 ASH (Access to Scientific Space Heritage) built a VIRTUAL CONTROL ROOM that gave students access to knowledge about space and astronomy.
- LAB@FUTURE ([www.labfuture.net](http://www.labfuture.net)). Emerging Mixed and Augmented Reality technologies allowed for the flexible presence of human and real life phenomena (e.g. mechatronics) in the digital transactions.
- CREATE (<http://www.cs.ucl.ac.uk/research/vr/Projects/Create/index.htm>), The global scope of CREATE (Constructivist Mixed Reality for Design, Education, and Cultural Heritage) was to develop a mixed reality framework that enabled highly interactive real-time construction and manipulation of realistic, virtual worlds based on real sources.

In addition, the eLearning conference in October 2007 connected the Discovery Days activities with other EU Projects like CALIBRATE, MELT,P2V, EdReNe, COLLAGE, InLoT, INTERREG projects, etc. Co-operations with the other projects of the ESW2007 was also promoted and contacts with national science events performed in the EU-28 performed. The collaborative measures used were:

- The implementation of a common initial meeting among projects and other national science events;
- The development of a common quarterly newsletter for the ESW organised by approved projects;

- The upgrade of EC science week web-site with the active contribution of approved projects;
- The implementation of collaborative actions to link communities of users (target groups) of all approved project;
- The creation (in co-operation with the EC) of common working groups on science communication (based on the clustering activities) open in parallel to other players across Europe.

## EU ADDED VALUE OF THE PROJECT

The project aimed to maintain and strengthen the EU positioning in new technology achievements related to science and culture by raising the public interest in scientific and technological advances. In the Description of the work, all the project's partners agreed that **no single European country had either the resources or the expertise** to raise the awareness and public appreciation of specific scientific achievements developed across Europe. Broad multinational activities in close cooperation with local partnerships were required to ensure the active involvement of public throughout Europe. Through the project activities, the participants provided a multinational dimension to their endeavours gathering together members, networks and strong local co-operations across Europe. The value brought by the project lied in the implementation of transnational cooperative and synergetic activities in order to increase public awareness, build a solid scientific culture among the European youth and strengthen the framework of equal opportunities due to new technology achievements in the field of science and culture for all the citizens. Finally, the project contributed to FP6 Thematic Priorities related to Information Society Technologies, citizens and governance in a knowledge based society and the ERA through the reinforcement of the European Learning Community.

## PARTICIPANTS AND RESEARCH TEAM

### Participants

Number of participants: 10

Number of countries involved: 7

	Type	Country	Role	Previous participations to FP
International Environment and Quality Services S.A. (Q-Plan)	OTH	GR	Coordinator	5
The European Collaborative for Science, Industry and Technology Exhibitions (ECSITE)	OTH	BE	Participant	1
TIEDEKESUSSAATIO	OTH	FI	Participant	1
Foundation for the Hellenic World (FHW)	OTH	GR	Participant	1
Austrian Federal Ministry of Education, Science and Culture BM:BWK	OTH	AT	Participant	1
Ellinogermaniki Agogi (EA)	OTH	GR	Participant	1
Gedeon Programmes (GP)	OTH	FR	Participant	3
iCons	OTH	IT	Participant	2
European Schoolnet (EUN)	OTH	BE	Participant	3
SA Tallinna Tehnika- ja Teaduskeskus	OTH	EE	Participant	1

### Team Composition

Team Size: members\*

GENDER		
Female	Male	Unknown
33,0%	63,0%	4,0%
SENIORITY		
Average	Junior	Senior
13,0%	8,0%	79,0%
PhD		
No	Yes	

Stock-taking and meta-analysis of Science in Society projects throughout FP6 and FP7  
Final Case Studies

38,0%		63,0%		
<b>BACKGROUND</b>				
Applied Sciences	Health Sciences	Humanities & Social Sciences	Natural Sciences	Unknown
0,0%	0,0%	63,0%	13,0%	0,0%

*\*The data are based on the analysis of the provided project's Description of Work.*

### DELIVERABLES AND PUBLICATIONS

DELIVERABLE NO.	DELIVERABLE NAME	DUE DATE OF DELIVERY (month)	ACTUAL SUBMISSION DATE: (month)
D1	D1.1: Quality Plan	0,5	
D2	D1.2: Three internal reports (management and financial)	0,75	
D3	D1.3: External reports (management and financial) to the Commission	2	
D4	D2.1: List with scenarios and activities of each Discovery Day	1	
D5	D2.2: Supportive material per scenario	2	
D6	D3.1: Detailed action plan for the implementation of the Discovery Days	1	
D7	D4.1: Organisational master plan of the Project	1	
D8	D4.2: Contingency plans	0,5	
D9	D4.3: Information targets	0,5	
D10	D4.4: Project's publicity and communication campaign	2	
D11	D4.5: Projects Posters (including campaign)	1	
D12	D4.6: Campaign leaflets	1,5	
D13	D4.7: Discovery Days Web Site	3	
D14	D4.8: Electronic newsletters for the Discovery Days	2	
D15	D4.9: Film of the Discovery Days	2	
D16	D4.10: Radio Spot per country	1	
D17	D5.1: Discovery Days	6	
D18	D5.2: International Conference	3	
D19	D5.3: Conference Proceedings	1	
D20	D6.1: Final report of the Discovery Days project	1	

### MAIN SOURCES

Discovery Days Final Report [http://cordis.europa.eu/docs/publications/1267/126792741-6\\_en.pdf](http://cordis.europa.eu/docs/publications/1267/126792741-6_en.pdf)  
Additional documents: <http://www.ea.gr/ep/discoverydays/>

## **BALTIC POPULAR SCIENCE TV PROGRAMME "FUTURESHOCK"**

**Framework Programme: FP6**

**Action line/Part: PART C: STEPPING UP THE SCIENCE/SOCIETY DIALOGUE AND WOMEN IN SCIENCE**

**Activity: 4.3.4 Scientific and technological culture, young people, science education and careers**

**Area: 4.3.4.1 Promoting science and scientific culture**

**Dimension: SCIENCE LITERACY**

**Tool: Specific Support Actions**

**Project Call For Proposal: FP6-2005-SCIENCE-AND-SOCIETY-19**

**Status: -**

**Total cost: 150 000**

**Total EU funding: 150.000**

**Website: -**

**Period: 01/09/2007; 30/11/2008**

**Subjects: Information and Media - Scientific Research - Social Aspects**

**Project ID and Acronym: ID: 44693, ACRONYM: FUTURESHOCK**

### **BACKGROUND AND CONTEXT OF THE PROJECT AND STRATEGIC NEEDS**

Scientific discoveries and technological progress have increasingly affected public life and society. However, access to high quality and understandable information was not ensured in some EU Member States. In the Baltic Region (Latvia, Estonia and Lithuania) mass media suffered from a shortage of information about the world of science. Consequently, people had limited awareness of the relevance of scientific progress, especially as a driver of competitiveness for the Baltic region and for Europe as a whole. Enhancing the role of science in the Baltic Region was essential to disclose its potential for the countries of the area, and to support their integration in the "excellence club" of the Baltic Sea region with Finland and Sweden. The first step towards that direction was a popularization of the world of science, which would have increased the level of information of the population and allowed a better understanding of science applications.

### **SPECIFIC PROJECT OBJECTIVES**

FUTURESHOCK specific objectives were:

- To **produce popular TV shows** about science in Latvian, Lithuanian, Estonian and Russian (18 episodes and 18 repeats). These shows would **provide understandable explanations** of leading European scientific projects and discoveries and would facilitate a **multi-stakeholders debate** involving not only scientists but also people with different backgrounds and views;
- To **discuss 18 subjects**– one subject per episode– which were important in three major areas of research: health, natural sciences, and technological sciences;
- To **bring together** the resources of the three countries (Latvia, Estonia and Lithuania) in order to produce a high-quality television project that would support co-operation between scientists and journalists and foster their active involvement in the scientific process.

The project objectives were relevant for:

- **ERA:** in line with the ERA priority of guaranteeing "optimal circulation, access to and transfer of scientific knowledge", the broadcast aimed to disseminate scientific information to the general public. The project also contributed to the ERA priority of developing "optimal transnational co-operation and competition" by involving partners from three Baltic States and favouring partnerships between existing organisations in the field. Finally, the broadcast was expected to increase the visibility to the overall development of the ERA.
- **Innovation Union:** the project contributed to the IU objective of "strengthening the knowledge base" in Europe by presenting the main scientific accomplishments, discoveries and opportunities across the EU. The establishment of an IU required the EU and all MS to "strengthen their capacity to attract and train young people to become researchers and offer internationally competitive research careers". As already mentioned above, the broadcast aimed to increase the level of interest among young people in science by demonstrating the career opportunities scientists are offered.

### **SaS/SiS Programme objectives/Activity Lines**

The project was relevant for the programme objectives to raise the awareness of scientific and technological advances, and their societal impacts and to promote young people's interest in science. FUTURESHOCK contributed to such objectives by: presenting scientific issues and themes in an understandable language as well as their ethical consequences; encouraging critical and creative ways of thinking among young people and by demonstrating the career opportunities scientists are offered in an equal and unified ERA; feeding a constant interaction with the audience in order to increase the dialogue between citizens and the scientific community. It also promoted networks

and partnerships between existing organisations working on those objectives through the involvement of partners based in different States in the Baltic Region.

### **SaS Action Plan**

The project was relevant for the SaS Action Plan objective of promoting scientific education and culture in Europe which aimed at raising public awareness of science and technological issues. Namely, Action 5 (Dissemination of scientific information) of the SaS Action Plan supported the creation of multimedia products for broad dissemination (TV programmes and publications) and tools to provide reliable and relevant scientific information to the general public. FUTURESOCK programmes were produced in their format and contents specifically for that purpose.

## **PROJECT RESULTS AND OUTCOMES**

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### **Main achievements according to Project objectives**

In line with the expectations expressed in the Description of Work, the project main achievements were:

- 18 TV shows produced and broadcasted in each Baltic State (Latvia, Estonia, Lithuania) about common themes including "Baltic TV stories";
- Selection of 10 best TV series -International video versions- submitted to [www.athenaweb.org](http://www.athenaweb.org) and sent to European media;
- Communication with international media informing them about the project and the international version placed in one of the European media.
- A conference "How to communicate science in Television" organised in Riga and broadcast in Latvian Television on May, 9<sup>th</sup> 2008;
- Additional 36 secondary broadcasts (reruns) on LTV World (the satellite channel) in Lithuania, also available online on the website ([www.tv.lt](http://www.tv.lt)).

A variety of other activities were also performed: journalistic research and editorial work; production of scripts for 18 series of TV programmes; translation of all video-copies and scripts into three national versions and 10 international versions; management and technical work for the conference. Throughout its duration, the progress of the project was monitored and periodical summary reports were submitted to the EC.

The size of the audience to the TV shows ranged from 15.000 to 50.000 within the general public, meaning that the project target, which was set at between 500.000 and 1.000.000 Baltic viewers weekly was not reached. The main obstacle identified in the periodic activity reports was that the TV broadcasting partners deemed science programs not adequate for the wider viewing audience and therefore no FUTURESOCK show was placed during prime time slots. To overcome this problem, discussions between producers and Broadcast partners took place throughout the project, but only during the Riga conference that was held at the end of the project the chairman of the Board of Latvian Television and media representatives agreed upon the relevance of TV shows about science in the Baltics and committed to find better broadcasting time and finances for the subsequent season.

### **Main achievements according to Programme objectives**

Looking at the expected results in the SaS Programme, FUTURESOCK contributed to achieve an enhanced interest in scientific culture, education and careers, particularly among young people. Many activities were relevant for the purpose. Namely:

- The TV programmes demonstrated the potential impacts of scientific discoveries and selected subjects relevant to the viewers' experience to increase public awareness and interest in scientific issues;
- Interaction with viewers through comments and open discussions allowed to establish a dialogue between citizens and the scientific community;
- With the aim of attracting young people, the broadcast demonstrated the opportunities of the scientist career also by presenting the stories of famous living scientists;
- To promote partnerships at regional level, the project involved partners and experts from all three Baltic States.

### **Main achievements according to SaS Dimensions**

FUTURESOCK belonged to the **science literacy** SaS dimension and thus its results could be framed in the wider discourse analysis related to education and communication. The project was consistent with a mature concept of the dimension focused on the use of informal education. In fact, FUTURESOCK programmes reflected the major trend consisting in the shift from the **deficit model** (science is too complicated for the general public) to the **dialogue model** (science is accessible and understandable). The project core aim was to provide the wide public with a better sense of the scientific achievements in their respective countries, the Baltic region, Europe and the rest of the world. The TV programmes contributed to the general promotion of the scientific culture and to increase young people's interest in scientific careers. In fact, as already stated in relation to the Programme objectives, TV broadcasts allowed



to establish a dialogue between science (the scientific community) and society (citizens), thanks to the different professionals invited to the shows and to interaction with the viewers. Through the open letter and discussion, the project also paved the way to a more interactive concept of education.

Finally, the project also reflected the SaS dimension of open access (dissemination of scientific knowledge). In fact, the TV Programs were available not only in television, but also on internet TV portals, and the international version of FUTURESHOCK was offered free of charges for adoption and broadcast in any programme/channel at global level.

## **DISSEMINATION AND ENGAGEMENT ACTIVITIES AIMED AT TRANSFERRING THE PROJECT RESULTS TO WIDER COMMUNITIES**

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As announced in the Description of the work, the accomplished dissemination activities included: preparation of press releases; direct contacts with journalists; agreements for interviews; participation in radio programmes; periodic annotations; TV self-advertisements. The main dissemination means were:

- announcement of The Baltic Project. Weekly prepared information about the Futureshock topics sent to the central media- news agencies, newspaper (e.g. "Diena", "Neatkarīgā Rīta avīze"). A full video of the programme and information about the new coming programme was published in [www.ltv.lv](http://www.ltv.lv);
- Exhibition "Robotics 2008" on 15th April 2008. Information about FUTURESHOCK placed in the exhibition web page and logo used in the design of the exhibition, TV advertisements, banners and posters directed to people interested in science.
- Open letter and discussion "Science with stars" to the Latvian Public Television prepared by the creators of the TV programme published in all central mass media, news agencies, radio and broadcasted live in [www.tv.lv](http://www.tv.lv)
- An evaluation of the campaign to promote the TV programme reaching a wide audience (youth, rural population, entrepreneurs, internet users).

Other dissemination means included:

- 3 press releases in Latvia, 1 in Estonia and 1 in Lithuania;
- 9 publications in Latvia targeting the general public, 4 in Lithuania (2 for researchers; 1 for higher education and 1 for the public);
- 4 Conference Internet broadcast in Latvia informing society about the situation in science communication in all 3 Baltic States;

The conference "How to communicate science in Television" held in Riga (LV) in May 2008, raised good press interest. As reported, the conference/discussion was broadcast live ([www.tv.lv](http://www.tv.lv)) and rebroadcast on several internet sites. As announced in the Description of the work, the conference informed the society and the experts of the industry about the situation in Science communication in all 3 Baltic States and contributed to solve one of the most important project obstacles (project results section).

## **PROJECT IMPACTS**

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The use of TV programmes as means to disseminate scientific information was expected to lead to long-term positive impacts on a wide audience. Even if the low audience to the programmes reduced the positive impact of FUTURESHOCK, all parties involved agreed that one of the side-effects of FUTURESHOCK would be scientists' own ability to better communicate their job to society thus improving the public perception of scientific careers and of the role of science, especially among the young people.

Looking at the consortium partners, there were no participants in the top 10% of the most central organisations in the overall FP network (betweenness centrality). Therefore, the project did not have very central organisations although some partners had previous experience in producing TV programmes or series financed by EU funds (e.g. OÜ Haridusmeedia).

The **actual impacts** could be classified into:

- **Scientific impact.** The project appears not to have had any scientific impact, since there were no scientific publications on the project and no actual citations (google scholar);
- **Social impacts.** A total of 26 posts were counted through the social media listening performed for the output analysis (from 23/05/2008 to 30/11/2010). This indicates that the project generated an "echo" via quotes in social media, publications in press, radio and TV.;
- **Institutional and organisational impact.** No new organisation or network was established by the project;
- **Policy impacts** As regards the national policy level prior to the project, there was no awareness of the need for investment in science in the Baltic States nor its potential to drive progress was fully understood. The project involved in the debate many actors with different backgrounds, related not only to science (e.g.



politicians, NGO representatives), which enhanced the exchange of views. It also conveyed the idea of the Baltic States as a unified information space

## EU ADDED VALUE OF THE PROJECT

Before the project implementation, the Baltic States had made several professional efforts to produce broadcasts focusing on science. Popular TV shows about science were aired on national channels but suffered from the lack of proper financing and in some cases, were closed down. In addition, scientific matters were not regularly addressed in journals in the Baltic States. The EU funding for the project offered the opportunity to pool together the three Baltic countries, and to overcome the total lack of national financing. This enabled to produce a high-quality television project which offered analytical information on scientific matters to the large public.

## PARTICIPANTS AND RESEARCH TEAM

### Participants

- Number of participants: 3
- Number of countries involved: 3

	Type	Country	Role	Previous participations to FP
HansaMedia Ltd.	OTH	LV	Coordinator	1
OÜ Haridusmeedia	OTH	EE	Participant	1
Public institution "Science and innovations for society" (MIV)	OTH	LT	Participant	1

### Team Composition

Team Size: members\*

GENDER				
Female		Male		Unknown
36,0%		14,0%		50,0%
SENIORITY				
Average		Junior		Senior
14,0%		0,0%		86,0%
PhD				
No			Yes	
21,0%			79,0%	
BACKGROUND				
Applied Sciences	Health Sciences	Humanities & Social Sciences	Natural Sciences	Unknown
0,0%	0,0%	71,0%	0,0%	0,0%

\*The data are based on the analysis of the provided project's Description of Work.

## DELIVERABLES AND PUBLICATIONS

DELIVERABLE NO.	DELIVERABLE NAME	DUE DATE OF DELIVERY (month)	ACTUAL SUBMISSION DATE: (month) (*)
D1	List of 18 subjects of TV programmes to be produced by group of scientific and TV production partners. Additionally 10 issues to	2	

DELIVERABLE NO.	DELIVERABLE NAME	DUE DATE OF DELIVERY (month)	ACTUAL SUBMISSION DATE: (month) (*)
	be produced as international version.		
D2	Report and examples on final decision by jury on TV design of the programme and music.	3	
D3	All main legal documents in between partners and sub-contracting agreements which are considered as part of the project.	4	
D4	Report and copies of press publications from the PR campaign (to be organized from August 2007 to November 2007).	10	
D5	All video-copies and scripts of 18 programmes in three national versions and 10 series international versions.	14	
D6	Final report from management, financial report and audit report.	14	14

(\*) It is not possible to list the actual submission dates due to missing information in the project documents

#### **MAIN SOURCES**

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D4 Report and copies of press publications from the PR campaign (from March 2008-May 2008)  
 Periodic Activity Report (From Sept. 2007 to Feb. 2008)  
 Periodic Activity Report (From March 2008 to Nov. 2008)  
 Publishable final activity report (2008)  
 Plan for using and disseminating the knowledge (2008)

## **PERMANENT EUROPEAN RESOURCE CENTRE FOR INFORMAL LEARNING "PENCIL"**

**Framework Programme: FP6**

**Action line/Part: PART C: STEPPING UP THE SCIENCE/SOCIETY DIALOGUE AND WOMEN IN SCIENCE**

**Activity: 4.3.4 Scientific and technological culture, young people, science education and careers**

**Area: 4.3.4.3 Promoting young people's interest in science, enhancing science education and monitoring scientific careers**

**Dimension: SCIENCE LITERACY**

**Tool: Specific Support Actions**

**Project Call For Proposal: FP6-2003-SCIENCE-AND-SOCIETY-5**

**Status: -**

**Total cost: 4.444.500**

**Total EU funding: 4.444.500**

**Website: [http://www.xplora.org/ww/en/pub/xplora/nucleus\\_home/pencil.htm](http://www.xplora.org/ww/en/pub/xplora/nucleus_home/pencil.htm)**

**Period: 01/10/2004-30/09/2007**

**Subjects:**

**Project ID and Acronym: ID: 511165, ACRONYM: PENCIL**

### **BACKGROUND AND CONTEXT OF THE PROJECT AND STRATEGIC NEEDS**

At the time of the project, there was a general consensus on the relevance and effectiveness of combining formal and informal science teaching. However, a comprehensive programme integrating field experience with academic research was missing. Thus, it emerged a clear need to find innovative solutions to motivate young people to re-discover science. Developing and testing new science teaching methods based on informal education means was the way forward.

Science centres and museums already had a leading position in the use of interactive communication and education techniques to reach a wide audience, especially youngsters and pupils, but it was necessary to examine how those informal science education activities could be integrated with those of local schools, in order to change young people's attitude to science and scientific careers, making them more positive about the subject. For that purpose, intensive cooperation and communication between museums/science centres and formal science teaching institutions, such as schools, universities, and labs needed to be established.

### **SPECIFIC PROJECT OBJECTIVES**

The project aimed to make youngsters interested in discovering science by testing and validating new science teaching techniques based on innovative developments of informal education products. The project also foresaw to:

- **Evaluate the effectiveness of the new techniques** through criteria specifically defined for this purpose;
- **Create new practices** in communities that would use the new techniques and products of the project;
- **Involve education institutions and professionals** in a thorough cooperation within the project;
- **Bring together best practices** in the field through international cooperation with important partners concerned.

The project objectives were relevant for:

- **ERA:** The project supported the ERA actions aimed at raising the public awareness of science.
- **Innovation Union:** The project contributed to the IU main objective of "Strengthening the knowledge base" by gathering the theoretical basics in the field of education through the ECSITE and other project partners as well as by providing advanced training tools for teachers.

### **SaS/SiS Programme objectives/Activity Lines**

The project was relevant for the programme objective to promote young people's interest in science and in up taking scientific careers as well as to increase public awareness of scientific and technological advances and citizens' concerns about their societal impacts. By developing new education methods, tools (including teachers' training tools) and techniques, the project aimed to boost teachers and students' motivation. Creating a favourable environment in science teaching was expected to increase the attractiveness of the world of science as well as the uptake of scientific careers by the youngsters.<sup>104</sup> Finally, the involvement of many institutions and teachers in the modernization of

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<sup>104</sup> Work Programme (2003) Science and Society modified in line with C(2003) 998.

teaching techniques could ease the spread of developed knowledge thus raising the awareness of the need for such changes.

### **SaS Action Plan**

The project contributed to the SaS Action Plan objectives in the field of science education and careers. More precisely, it was relevant for:

- Action 11 (Strengthen links between working life, research and society) and the promotion of equal opportunities. Gender issues were addressed in pilot project 9 (“social dimension of science, diversity and gender issues”) and a special attention to gender-based differences was to be paid during the project implementation;
- Action 14 (Support Science Teacher Education Development in Europe Network) and attention to recent findings in science research. The project was based on updated educational theories, tested through pilots and then turned into practice for teaching and learning;
- Action 15 (Development and dissemination of new teaching tools) as the project planned to test the new teaching methods in nearly 200 schools (including primary and secondary schools) and to disseminate them on the web.

## **PROJECT RESULTS AND OUTCOMES**

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### **Main achievements according to Project objectives**

The PENCIL project provided practitioners, policy makers and researchers with the opportunity to analyse, in detail, how science museums and science centres may integrate their activities and resources with those of local schools and supported initiatives to develop practices in such learning contexts (i.e. involvement of stakeholders; use of informal teaching tools).

It took into account the diversity of the field and involved several institutions and schools (primary and secondary level) to ensure a balanced project implementation. It also adopted an inter-disciplinary approach to science teaching exploring new techniques such as “peer to peer” and “multi-media”. The project main results were:

- 14 **“Pilot Projects”** involving a great number of schools, teachers associations, academics, labs and educational authorities in 12 countries to test new teaching approaches built on the experience of informal learning activities and the school system. These pilot projects were evaluated by two universities: King’s College, London (UK) and University Federico II, Naples (IT);
- Creation of the **“Resource Centre”** ([www.pencil.unina.it](http://www.pencil.unina.it)) an online portal which provided the theoretical bases, an archive of the Pilot Projects and defined a set of 8 “criteria of innovation and quality” to evaluate the effectiveness of practices in science teaching. Materials were selected by a scientific committee made up of researchers in science education after review and targeted science centre, museum practitioners and informal science educators.
- The **Xplora** portal - the “European Science Education Portal” by European Schoolnet ([www.xplora.org](http://www.xplora.org)) was a large repository where registered users (4.885 users and 84 sub-communities) might freely upload any materials. There were total 1.189 (EN) resources available in the Xplora resource database and 26 projects covered in the EU projects section at the end of the PENCIL project.
- A **list of key recommendations** identifying areas where there was room for improvement in education programs (e.g. Cross-fertilisation and sustainability, synergies between projects, social cohesion, competences for lifelong learning)
- 2 **European Science Teachers Conferences** were held in the framework of the Pencil project: the first at CERN in Geneva, Switzerland, in June 2005; the second at Technopolis, Mechelen, Belgium, in June 2006 bringing together 110 European science teachers and science centre/museum professionals. These conferences provided teachers with concrete examples of best practice from the 14 pilot projects as well as pragmatic guidelines on how to collaborate with science centres.

### **Main obstacles**

The management of the project was concerned with a shift after the first year due to a change in the leadership but the high commitment of the partners was identified as success factor for the project.<sup>105</sup> Besides, the internal

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<sup>105</sup> D1: PROJECT MANAGEMENT (2004).

communication among the institutions involved was supported by two yearly face-to-face meetings and weekly online chatroom discussions ensuring to come to the project results.

### **Main achievements according to Programme objectives**

In line with expectations, PENCIL contributed to enhance the interest in scientific culture, education and careers, particularly among young people by establishing a pan-European initiative to enhance science teaching. In detail, PENCIL:

- provided two mechanisms to allow science teachers, science professionals, education specialists across Europe to exchange ideas, best practices and techniques (i.e. the mini-networks gathering teachers, science centres and researchers; the ESEP for online communication and exchange);
- built an accessible resource infrastructure- the Resource Centre for informal learning- to provide teachers with the all the necessary theoretical basics to improve the curricula;

Finally, the project involved a wide number of participants and stakeholders concerned with science education so as to support the establishment of structural links, within the European Research Area which was the guiding principle of the whole work programme.<sup>106</sup>

### **Main achievements according to SaS Dimensions**

PENCIL belonged to the science literacy specific SaS dimension and its innovative approaches were to be framed in the wider discourse analysis. The project could be considered a cornerstone of the programme evolution and a forerunner of future approaches to science education. While sharing the SaS main focus on young people's interest in science, the project anticipated the SiS approach to science education as integration between formal and informal techniques. By exploring new methods for teaching and learning to motivate and commit youngsters and teaching staff to science, PENCIL project moved towards a more interactive model of education.

The gender dimension was also relevant for the PENCIL project. A special attention was paid to gender differences as transversal issue to all the Pencil Pilot Projects and all of them were asked to keep track of gender when performing their internal evaluation studies and data analysis. The effort was intended to understand the contribution of new educational approaches to stimulate the interest of girls in science.

### **DISSEMINATION AND ENGAGEMENT ACTIVITIES AIMED AT TRANSFERRING THE PROJECT RESULTS TO WIDER COMMUNITIES**

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As anticipated in the DoW, the EUN set up the ESEP on the web to ensure the interactivity between partners in the presentation of their activities. Throughout the entire project duration, several dissemination means were used to present the project results to the general public. Major dissemination actions included:

- **Ecsite website and e-news:** and regular news on the project accessible through the homepage. Ecsite's bimonthly e-news throughout the three years of the project contained an update on Pencil activities;
- **Publication of project updates and findings on Ecsite's quarterly printed newsletter:** this newsletter circulated to its members and contacts and contained updates on PENCIL. An entire issue of the newsletter (summer 2007 issue 71) was devoted to project's findings available at (<http://www.ecsite-uk.net/news/ecsiteneeds.html>);
- **Xplora brochure:** published by EUN to launch the portal in the first year of the project; A link to Xplora was included in Ecsite.net home page ([www.ecsite.net](http://www.ecsite.net));
- **Ecsite Annual Conference s:** PENCIL was presented at 4 Annual Conferences (2004, 2005, 2006 and 2007) reaching an audience of 890 professionals from the Europe's community of science centres and museums in the last one;
- A **paper** presented at the 2007 biennial meeting of European Science Education Research Association (ESERA) in Malmö (SE);
- Two **oral contributions** to the International Conference on Physics Education held in Marrakech in 2007 about lessons learnt in the framework of the PENCIL project and gender differences in science learning.
- Various **events** held in each participating country (e.g. the conference "Discovering science and technology through an interactive exhibition" at the Eugenides Foundation in GR in 2006; EDUCATEC Conference in 2006 and in 2007 reaching 1200 participants among educational professionals;

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<sup>106</sup> Work Programme (2003) Science and Society modified in line with C(2003) 998.

- Publication on the EC magazine RTDinfo of an article about PENCIL (June 2007 special edition) and of information about the project (Issue 46, 2005)
- Many **types of promotion** implemented by each single partner in the project, such as leaflets, email announcements, flyers, posters.

In terms of achievements, the set target of at least 10 million people every year was hard to assess but the project reached a large audience thanks to the variety of dissemination means used. At the end of the project, the PENCIL community was made of 440 schools, 1.350 teachers and 26.500 school children<sup>107</sup>

The extension and diversity of the project participants was an **enabler** of the achievements of project dissemination. It should be underlined that The PENCIL project gathered 19 organisations located all over Europe (Belgium, Finland, France, Germany, Greece, Italy, Netherlands, Portugal, Sweden, United Kingdom) and in Israel. Science institutions, academic and research institutes and partners from the Baltic Countries (Estonia, Latvia) and from Hungary were also involved as well as the EUN's networks 26 countries throughout Europe.

## PROJECT IMPACTS

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The PENCIL project was conceived so as to encourage the flexible participation of many partners and institutions. The potential impacts of the project were expected to spread in multiple «circles of influence» involving 186 school centres participating to the pilot projects (*direct project impact*), the general audience of the 14 partner public institutions (*project partners' impact*) as well as all the institutions covered by the ECSITE and EUN networks (*networks' impact*). Looking at the project partners, 7 organisations were in the top 10% of the most central organisations in the overall FP network, including 2 which were in the top 1% (*betweenness centrality*). Participation of the partners to several FPs projects together with other important organisations, increased the expectations on the project potential impacts. In addition, the King's College London was included in a top position (74) of the Leiden ranking of Universities due to the scientific performance in terms of high quality papers released<sup>108</sup>.

The **actual impacts** could be classified into:

- **Scientific impact:** there was no publication based on the project and there were no citations; However, the PENCIL project was compared with other EU funded projects in the field of education in a publication (Acher, A. et al. 2007); 3 articles on Pencil were published in the journal Science in School in 2007<sup>109</sup>, as part of Pencil's collaboration with other Nucleus initiatives<sup>110</sup> and remained accessible in the archive ([www.scienceinschool.eu/archive](http://www.scienceinschool.eu/archive)).
- **Social media impacts:** there was no relevant social impact according to social media listening buzz results. This may be in part due to the level of social media development at the time of the project implementation (2004-2007)
- **Institutional and organisational:** the project established a network of science centres/museums with schools, teachers associations, research laboratories, educational laboratories involving also children. This informal network expanded during the project and after its ending through the Xplora portal, which still receives contributions and launches activities in the field;
- **Policy impacts:** The innovative programmes pioneered by Pencil pilot projects and the criteria of innovation were assumed to inform future partnerships between schools and informal science institutions and projects in the learning environment. Beyond Europe, project partners from Jerusalem addressed some scientific issues involving Israeli and Arab schools.

## PATH-BREAKING ADVANCEMENTS

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The project adopted a broad and multidisciplinary view of science, taking also into account the social environment. The sources of innovation introduced by PENCIL ranged from the learning theories and methodology used to the outputs. Above all, the main principles informing the methodology of all pilot projects included different forms of informal learning such as: collaborative learning, group work, enquiry-based learning, learning by doing/hands-on, reformulation of knowledge boosted by ICT, role-play and learning by design. The adoption of alternative learning

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<sup>107</sup> Figures derived from <http://www.xplora.org/>

<sup>108</sup> Also the University of Naples Federico II was included in the ranking but not in the top 100 positions (481).

<sup>109</sup> Issue 4, Spring 2007 (Explor@mobile: using new technologies to teach science to teenagers); Issue 5, Summer 2007 (Travel wisely: the globe is warming!); Issue 6, Autumn 2007 (Science centres working with schools: using peer-to-peer teaching to engage students).

<sup>110</sup> NUCLEUS was a cluster of EU projects funded by the European Commission's Directorate General for Research, as part of the European Science Education Initiative, with the common aim to reach thousands of teachers in three years time.

activities linked with the school curriculum put evidence on how informal situations impacted on the learning process. In addition, the identified criteria of innovation and quality standards provided instruments to design future educational programmes and for any future science teaching efforts. For instance, they highlighted the relevance of sustainability as an important factor to gain support, commitment and motivation from teachers and informal education staff.

### **BEST PRACTICES**

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As part of the project design, an effort was made to link PENCIL with other EU funded projects through the consortium. The follow up project to PENCIL, called INSPIRE and funded by DG EAC, was expected to reconfigure and expand the resources database and additional technical development to the portal tool (ESEP) in 2008.<sup>111</sup> Moreover, the PENCIL project was presented as example of most successful practice in teaching methods and relationships between schools and science centres/museums.

### **EU ADDED VALUE OF THE PROJECT**

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The added value of the project lies in the pooling of resources at EU level to catalyse and trigger actions for wide and enduring impacts. PENCIL projects covered the breadth of contemporary practice in museum and science centre partnerships with schools across Europe and in Israel. This was possible thanks to the participation of a large number of institutions (19) operating in 9 different countries.

### **PARTICIPANTS AND RESEARCH TEAM**

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#### **Participants**

Number of participants: 19

Number of countries involved: 11

	Type	Country	Role	Previous participations to FP
ASSOCIATION EUROPEENNE DES EXPOSITIONS SCIENTIFIQUES, TECHNIQUES ET INDUSTRIELLES	OTH	BE	Coordinator	1
ASSOCIATION SAVOIR APPRENDRE	OTH	FR	Participant	1
BLOOMFIELD SCIENCE MUSEUM JERUSALEM (BSMJ)	OTH	IL	Participant	1
CENTER FOR FORMIDLING AT NATURVIDENSKAB OG MODERNE TEKNOLOGI (FOND)	N/A	DE	Participant	1
CIENCIA VIVA - AGENCIA NACIONAL CULTURA CIENTIFICA E TECNOLÓGICA	OTH	PT	Participant	1
DEUTSCHES MUSEUM VON MEISTERWERKEN DER	OTH	DE	Participant	2

<sup>111</sup> D21: CONTENT AND ACTIVITIES FOR EUROPEAN SCIENCE EDUCATION PORTAL, ADDENDUM (2004)

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	Type	Country	Role	Previous participations to FP
NATURWISSENSCHAFT UND TECHNIK				
ELLINOGERMANIKI AGOGI S.A.	OTH	GR	Participant	1
EUN PARTNERSHIP AISBL	OTH	BE	Participant	3
FONDAZIONE IDIS- CITTA DELLA SCIENZA	OTH	IT	Participant	2
ISTITUTO E MUSEO DI STORIA DELLA SCIENZA	OTH	IT	Participant	1
ISTITUTO NAZIONALE DI DOCUMENTAZIONE PER L'INNOVAZIONE E LA RICERCA EDUCATIVA (INDIRE)	OTH	IT	Participant	1
KING'S COLLEGE LONDON	HES	GB	Participant	61
NATIONAAL CENTRUM VOOR WETENSCHAP EN TECHNIEK (NEMO)	OTH	NL	Participant	1
NATIONAL MARINE AQUARIUM	OTH	GB	Participant	1
SEMECCEL	OTH	FR	Participant	1
TECHNOPOLIS	OTH	BE	Participant	1
TIEDEKESUSSAATIO	OTH	FI	Participant	3
UNIVERSEUM	OTH	SE	Participant	2

**DELIVERABLES AND PUBLICATIONS**

DELIVERABLE NO.	DELIVERABLE NAME	DUE DATE OF DELIVERY (month)	ACTUAL SUBMISSION DATE: (month)
D1	Project Management	36	36
D2	Working Groups Coordination	36	36
D3	Pilot Project Local Network	36	36
D4	Best practices in co-operation between formal and informal science learning	36	36
D5	Logo & Communication Design	12	12
D6	Press Releases, Communication Texts	4	4
D7	Official Launch of PENCIL	4	4
D8	Scientific conferences	4	4
D9	Informal Education best practice	12	24
D10	Assessment of Pilot Projects	36	36
D12	Delivery of the material to the working platform	24	24
D13	Working Platform	12	12



DELIVERABLE NO.	DELIVERABLE NAME	DUE DATE OF DELIVERY (month)	ACTUAL SUBMISSION DATE: (month)
D14	<i>Pencil Promotional Material</i>	36	36
D15	<i>E-Newsletter For Science Teachers</i>	36	36
D16	<i>Validation of the Content Agenda</i>	32	32
D17	<i>Resource Centre survey</i>	36	24
D18	<i>Demonstration of Web Portal To Science Teachers' Network</i>	36	36
D19	<i>Theoretical contribution</i>	36	24
D20	<i>ESEP</i>	36	36
D21	<i>Content And Activities For European Science Education Portal</i>	36	36
D22	<i>School and Teacher Network</i>	36	36
D23-30	<i>Motivation Study</i>	36	36
D24	<i>Pilot Project Outcomes</i>	36	36
D25	<i>Resource Centre Survey Results</i>	36	36
D26	<i>Teacher Training Design</i>	36	36
D27	<i>Criteria of Innovation</i>	36	36
D28	<i>Criteria of Innovation and Quality</i>	36	36
D29	<i>Resource Centre Survey Results Dissemination</i>	36	36
D31	<i>Elements of Evaluation</i>	36	36
D32	<i>Interpretation of gender differences</i>	36	36
D33-34	<i>Science Teachers Conference</i>	36	36

## PUBLICATIONS

Acher, A., Dillon, J. & King, H. (2007). Building bridges: A comparative analysis of EU projects at the interface between formal and informal learning science. European Science Education Research Association (ESERA), Malmo, Sweden

## MAIN SOURCES

Description of the Work

Pencil D14 Pencil Promotional Material

King, H., Cuomo, F., Serpico, M., Balzano, E., Acher, A. & Dillon, J. (2007). Permanent European Research Center for Informal Learning. D31: Elements of Evaluation WP4: Resource Centre.

PENCIL Report (2007) Science centres and museums working with schools: new ways of cooperating. Available at: <http://www.xplora.org/shared/data/xplora/pdf/Pencil.pdf>

Final Publishable Report (2007)

## Science Literacy: Science in Society

## **AUDIO VISUAL SCIENCE AUDIENCES (AVSA). A COMPARATIVE STUDY - "AVSA"**

**Framework Programme: FP7**

**Action line/Part: 5.3 science and society communicate**

**Activity: --**

**Area: 5.3.0.6 Research aimed at enhancing science communication in its methods and its products**

**Dimension: Science Literacy**

**Tool: Collaborative project**

**Project Call For Proposal: FP7-SCIENCE-IN-SOCIETY-2007-1**

**Status: Closed**

**Total cost: € 638 576.00**

**Total EU funding: € 499 831.00**

**Website: <http://www.polsoz.fu-berlin.de/en/kommwiss/v/avsa/>**

**Period: 01/04/2008 - 31/03/2010**

**Subjects: Telecommunications**

**Project ID and Acronym: ID: 217738, ACRONYM: AVSA**

### **BACKGROUND AND CONTEXT OF THE PROJECT AND STRATEGIC NEEDS**

Several radio and television programmes on science are broadcasted daily or weekly in most of the European countries. Some of these productions focuses on specific fields of science, others deal with major topics. Their number, address, focus and public outreach vary considerably across Europe, possibly depending on differences of general culture, media and scientific culture of the Member States. Thus there is a need for systematising these data and examining the range of science programmes broadcasted across Europe and the responses of different audiences, in order to implement a more effective science communication through the media Europe-wide.

### **SPECIFIC PROJECT OBJECTIVES**

The AVSA project aimed at producing new research on the status of radio and television programmes communicating scientific contents in Europe. It also aimed at providing policy makers and stakeholders with a framework for the implementation of an action plan in order to facilitate the public engagement with science. Specific steps of the research were as follows:

- Test and elaborate a classification by type of science programmes broadcasted in a number of European countries;
- Collect and transnationally analyse audience data regarding science programmes, so as to also correlate them with science programme types;
- Research on audience responses to different types of science programmes.

### **SaS/SiS Programme objectives/Activity Lines**

AVSA addressed a key aspect of the Work Programme 2007-2013 for the Third Action-line "Science and Society communicate", which explicitly highlights the role of the media in providing a wider public with more scientific information and enabling the public to engage with scientists. Furthermore the transnational comparison of different case studies is expected to cast light on the cultural differences in Europe related to the relationship of the public with TV and radio science programmes, as stated in Area 5.3.06 of the "Science in Society" Call for Proposal 2007-1. The project aims at producing new knowledge on science communication through the media, but it does not address directly any of the objectives foreseen by the Commission for this action.

### **SaS Action Plan**

The AVSA approach to research partially mirrored the work done by the SCIRAB consortium<sup>112</sup>, which identified a number of radio formats all over Europe in its Final Report. The need for an action plan to implement and functionally enrich the supply of science communication through television was also addressed in the workshop organised by the

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<sup>112</sup> SCIRAB "Science in Radio Broadcasting" was a project funded by the European Commission within the FP6 "Science and Society" Programme. Its overall objective was to survey radio science programmes across Europe with an "action research" approach, namely letting research results emerge directly from the practice of producing radio programmes, thus engaging closely with practitioners and other stakeholders.

EARTHWAKE project<sup>113</sup>. The project's objectives are relevant with regards to Action 4 (Examine potential of internet and television for publicising science) of SaS Action Plan.

## PROJECT RESULTS AND OUTCOMES

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### Results and outcomes according to project objectives

The project implemented a research on radio and television science programmes' typology and on their audiences and audience responses, also including a cross-country comparative perspective. Furthermore the consortium developed a proposal for an action plan aiming at enhancing the public engagement with science. Duration of the project was 24 months and all AVSA project tasks for the four main work packages (WPs) were successfully implemented. Main results and outcomes were:

- A **survey of radio and TV science programmes broadcasted in 13 European countries** (between 2007 and 2008), illustrating the width of the supply of scientific contents for the different media systems, distinguishing between different editorial approaches (programmes on new topics that have been prompted by the science system itself; programmes on new topics that have not been prompted by the science system itself; programmes with no link to the present but prompted by the science system; and journalism products about topics with no link to the present and not prompted by the science system), a number of topics and formats. Eventually, a classification into 5 science programme-types was also conducted (Information, Popularising, Education, Advisory and Advocacy programmes);
- An **analysis of the supply of science programmes in Europe**, conducted quantitatively on three dimensions in terms of big versus low segmentation of media markets, high or small degree of market forces, and poor versus rich tradition of science reporting in audiovisual media with special emphasis on public service broadcasting; these data were expected to explain the presence/absence of determined programmes in each system;
- The **organisation of 40 focus group discussions in 5 countries** (Germany, Finland, Greece, Bulgaria, Ireland) focusing on the definition of science, interest in science, conceptions, definitions and judgements on science programmes, comparisons of science communication through media and assessment of audiovisual clips;
- The production of reports on science communication through the media for 23 Member States by local experts;
- **Interviews to programme-makers** from 7 European Countries, aimed at highlighting strong needs in the field, such as the need to enrich science programming with new formats, with a deeper cooperation with other departments, the need of a wider promotion and public support, the need for a more detailed knowledge and for a more effective use of internet;
- The **implementation of an action plan** including 13 proposals and addressing broadcasting organisations (who should improve their analysis of audience data, include more widely specialist capacity in programme making, include scientific content in different media formats and develop the use of internet, social media in particular), the European Broadcasting Union (who should further incentivise innovation in science communication, promote audience data collection and make them easier to access), National and international Governments (who should recognise and promote the role of public service to the public outreach of science and research, encourage innovative science programming, defend and promote the independence of media professionals, and acknowledge the value of many forms of public engagement with science) and the European Commission (who should further foster the use of traditional media as a means for dissemination in EU-funded projects, establish targeted media funding programmes, promote and support interaction among stakeholders Europe-wide, arranging occasional meetings, an online forum, publications and other forms of cooperation).

The project achievements mirror the expected results. Progress of each WP including deliverables and associated milestones were monitored during the project lifetime and eventually presented to the Commission. Some delays in national reports and some difficulties in collecting and accessing local data forced the Consortium to a certain delay in the production of the major part of deliverables, as it can be seen in the table of deliverables below.

### Main achievements according to Programme objectives

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113 EARTHWAKE "European Television: a workshop to prepare a new agenda for science communication" was a project funded by the European Commission within the FP6 "Science and Society" Programme. It aimed at reaching a large European public through popular television strands with issues in science.

In organising 8 focus group discussions in each of the 5 countries involved, the project contributed to gather data from Member States and associated countries and to provide an analysis of how Europeans, according to their nationality, gender, sociocultural background (including a focus on young people), perceive existing audiovisual science programmes. Furthermore, the research activities helped to identify the reasons why different sections of the European public are satisfied or not with what is currently offered in this field. Interviews to stakeholders and focus groups contributed to identify what is missing and what are the precise expectations of the audiences towards science programmes on TV and radio. The knowledge acquired within the project's research activities has the potential to indirectly contribute to an effective science communication to a EU-wide public.

### **Main achievements according to SiS Dimensions**

The AVSA project was relevant for the SiS Science Literacy dimension. All the project results and outcomes contain information and surveys on the gap between science and society, as far as traditional media are concerned. In line with the trend for this SiS dimension, the project foresaw the engagement of different media, TV and radio in particular, and focused on participation in science communication, including in its surveys both providers' and beneficiaries' perspective. The shift from formal scientific education to the valorisation of informal education is another general trend of the dimension encompassing this project.

### **DISSEMINATION AND ENGAGEMENT ACTIVITIES AIMED AT TRANSFERRING THE PROJECT RESULTS TO WIDER COMMUNITIES**

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The AVSA dissemination activities addressed stakeholders, scientists, experts on science journalism and communication, and audio-video professionals in the field of media. By type, the dissemination means included:

- **IT:** AVSA Web-site (<http://www.polsoz.fu-berlin.de/en/kommwiss/v/avsa/>), intended to link the project with other activities of the collaborators.
- **Publications:** wpk-quarterly, an online journal edited the Coordinator, welcomed contributions aimed at presenting the approach and the results of AVSA; two other publications by the Coordinator have been reported.
- **Symposia/Conferences:** in November 2007 the Free University of Berlin hosted a symposium attended by 25 external experts from 15 different countries; moreover, partners presented the project in two international conferences in Athens (2009) and Bremen (2009); after the end of the project its findings were expected to be presented in two more international venues, in Germany (2010) and in India (2010).

### **PROJECT IMPACTS**

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The AVSA project was expected to **provide data that describe critically the supply of science programmes** in traditional media Europe-wide. It was also expected that abstracting from programmes to types and using a comparative perspective would identify structural lacks with regard to the type of science programme that is offered by audiovisual professionals.

The AVSA project **actual impacts** can be classified into:

- **Scientific impact:** As reported in the last table of this document, three scientific output related to the project have been published, even though two of them are accessible only to a German-speaking readership. That suggests a moderately positive effect of the project from the scientific point of view. The number of publications related to AVSA is above the average number of scientific outputs of SiS projects (0,5 publication per project).
- **Policy impact:** To tackle the strategic needs and cover the lacks in scientific communication through the media in Europe, it was necessary to monitor the current situation and interpret it comparatively and critically. The knowledge produced by the project and its proposals for an action plan constitute a rational framework from where the European Commission, Member states and professionals can start with in order to achieve the goal of a more diffused and functional public awareness of and engagement with science in Europe.
- **Social media impacts:** There has been no relevant social impact in terms of social media listening buzz results. That can be partially explained by the highly specialised content of the research.

### **EU ADDED VALUE OF THE PROJECT**

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The EU added value of the AVSA project seems to be moderately relevant. The cross-country comparative approach was fundamental to address the strategic need of understanding the heterogeneity of supply of science programmes in European media, interpreting the differences and similarities within the European audiences. The project allowed to read simultaneously a notable amount of data and elaborated a comprehensive action plan for the European Commission. It is probable that access to these data would have been more difficult without the EU financial participation within the project.

## PARTICIPANTS AND RESEARCH TEAM

### Participants

Number of participants: 5

Number of countries involved: 5

	Type	Country	Role	Previous participations to FP
FREE UNIVERSITY OF BERLIN	HES	DE	Coordinator	105
UNIVERSITY OF PELOPONNESE	HES	LY	Participant	8
INSTITUTE FOR THE STUDY OF SOCIETIES AND KNOWLEDGE	REC	BG	Participant	4
HELSINKI UNIVERSITY	HES	FI	Participant	236
DUBLIN CITY UNIVERSITY	HES	IE	Participant	82

### Team Composition

Team Size: members\*

GENDER				
Female		Male		Unknown
25%		75%		0%
SENIORITY				
Average		Junior		Senior
17%		0%		83%
PhD				
No			Yes	
0%			100%	
BACKGROUND				
Applied Sciences	Health Sciences	Humanities & Social Sciences	Natural Sciences	Unknown
8%	0%	92%	0%	0%

\*The data are based on the analysis of the provided project's Description of Work.

## DELIVERABLES AND PUBLICATIONS

DELIVERABLE NO.	DELIVERABLE NAME	DUE DATE OF DELIVERY (month)	ACTUAL SUBMISSION DATE: (month)
D1.1	Structure of Science Programmes	9	s.d.
D2.1	Structure of use	12	21
D3.1	Judgements towards Science Programmes	20	28
D4.1	Proposal for an action plan	24	28
D5.1	Project web site	3	n.a.
D5.2	Internal Progress Report (1-6)	6	6
D5.3	Symposium Statement	6	s.d.
D5.4	Periodic Report P1 (1-12)	12	14
D5.5	Financial Report P1 (1-12)	12	14
D5.6	Internal Progress Report (13-18)	18	20
D5.7	Periodic Report P2 (13-24)	24	28
D5.8	Financial Report P2 (13-24)	24	28

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DELIVERABLE NO.	DELIVERABLE NAME	DUE DATE OF DELIVERY (month)	ACTUAL SUBMISSION DATE: (month)
D5.9	Certificate on Financial Statements (CFS) (1-24)	24	28
D5.10	Final Report P3 (1-24)	24	28

Publications no.	PUBLICATION	LINK (when available)
1	Lehmkuhl, M. (2008): <i>Die Masse macht's? Wissenschaft im TV in Deutschland. In: Quartalszeitschrift der Wissenschaftspressekonferenz, 6 (3): 4-5.</i>	
2.	Lehmkuhl, M. (2009): <i>Medienpräsenz viel höher als vermutet. In: BMBF (Hrsg.): Wissenschaftsjahre 2000 - 2009. Erfahrungen und Perspektiven der Wissenschaftskommunikation, 16-17.</i>	
3.	Lehmkuhl, M.; Karamanidou, C.; Möra, T.; Petkova, K.; Trench, B.; AVSA Team (2012): <i>Scheduling Science on TV. A comparative analysis of the representations of science in 11 European countries. Public Understanding of Science, 21: 1002-1018.</i>	

### MAIN SOURCES

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AVSA Consortium (2007). Proposal Annex I.  
 AVSA Consortium (2008). Symposium Statement.  
 AVSA Consortium (2009). Structure of Science Programmes.  
 AVSA Consortium (2009). Structure of use.  
 AVSA Consortium (2009). Periodic Report (1-12).  
 AVSA Consortium (2010). Judgements towards Science Programmes.  
 AVSA Consortium (2010). Proposal for an action plan.  
 AVSA Consortium (2010). Periodic Report (13-24).  
 AVSA Consortium (2010). Science in Audiovisual Media. Production and Perception in Europe. Final Report.  
<http://www.polsoz.fu-berlin.de/en/kommwiss/v/avsa>  
<http://pus.sagepub.com>  
[markuslehmkuhl.de/page/publ.shtml](http://markuslehmkuhl.de/page/publ.shtml)

## **ACCENT: ACTION ON CLIMATE CHANGE THROUGH ENGAGEMENT, NETWORKS AND TOOLS - "ACCENT"**

**Framework Programme: FP7**  
**Action line/Part: 5.3 Science and Society communicate**  
**Activity: not applicable**  
**Area: 5.3.0.3 Encouraging a European dimension at science events targeting the public**  
**Dimension: Science Literacy**  
**Tool: Coordination and support action**  
**Project Call For Proposal: FP7-SCIENCE-IN-SOCIETY-2008-1**  
**Status: Closed**  
**Total cost: € 1 348 965**  
**Total EU funding: € 1 017 880**  
**Website: <http://www.i-do-climate.eu/>**  
**Period: 01/04/2009 - 31/03/2011**  
**Subjects: Coordination and**  
**Project ID and Acronym: ID: 230178, ACRONYM: ACCENT**

### **BACKGROUND AND CONTEXT OF THE PROJECT AND STRATEGIC NEEDS**

People concerns about climate change have been growing faster in the last decades, also because of the traditional media, communicating a great amount of information and data about this topics. At the same time, this issue is considered as crucial by national and international institutions: the UN frameworks and the Kyoto protocol inform EU institutions and Member States policies regarding consequences of climate change, energy and sustainable development. Scientific centres have the responsibility to tackle the need for sharing and pooling knowledge relevant to climate change issues and foster an active engagement of citizen, in order to transform people concerns into positive actions towards the choice of an environment-friendly lifestyle.

### **SPECIFIC PROJECT OBJECTIVES**

The European science centres and science museums participating in the ACCENT project Consortium joined together in a **participative mobilisation campaign** aimed at providing European citizens with interactive and participative communication tools in the field of climate change. The specific objectives of this campaign are as follows:

- Enhancing a fruitful collaboration among science centres, museums and aquariums engaged in communication on climate change;
- Implementing a two-way communication action on climate change issues in Europe;
- Raising awareness on the importance of climate changes, by disseminating the most updated scientific knowledge about these topics; and
- Collecting information on public knowledge and perception of the topic, and calling for active engagement of laypeople with these issues, by means of sound debates and dialogue with interested institutions.

### **SaS/SiS Programme objectives/Activity Lines**

The project is in line with the major ERA priority of optimal circulation of scientific knowledge to guarantee access to and uptake of knowledge by all. The Commission invited science museums and science centres to choose topics of particular interest to European citizens, such as energy provision and consumption, environment and public health protection, nanotechnology development, and to engage in particular in two-way communication with citizens and civil society organisations in the framework of the project. The project objectives positively addressed the objectives of fighting the perceived isolation of the world of science from the everyday realities of Europeans by promoting effective two-way communication channels (providing a wider public with more scientific information and enabling the public to engage with scientists), and of providing the public with tools to express its views on science. The project's goals also tackled a transversal theme in Innovation Union commitments of reinforcing citizen-centred approaches to decision making and further involvement of lay citizens in producing knowledge and development.

### **SaS Action Plan**

The project's objectives are relevant with regard to actions 5 (Help create multimedia products for broad dissemination), 6 (Support the translation of communication products) and 7 (Network scientific events throughout Europe, e.g. Science Weeks and other events).

### **PROJECT RESULTS AND OUTCOMES**

Results and outcomes according to **project objectives**



The project consortium successfully managed to develop synergies and mutual collaboration among 15 European and Israeli science centres, museums and aquariums and in doing so arranged a number of surveys and events related to climate change issues and citizens' concerns about them. Duration of the project was 24 months and during its lifetime the project successfully arranged the following activities:

- A **literature and best practices review**, concerning latest academic research and science communication actions on climate change;
- The launch of a web platform, the production of a set of publishable materials in different languages and the arrangement of several seminars, workshops and entertaining events in national venues, as described in the dissemination section;
- The **arrangement of a launch event**, within the cop15 united nations climate change conference in Copenhagen (December, 15<sup>th</sup>, 2009), including a number of institutional speeches and presentations of the project and some side entertaining events and workshops;
- The **development of 25 lcd 'local citizens debate' in 10 countries, and 3 young people focus groups in Italy**, shaped in a 5-step structure, including a preliminary dissemination of preparatory informative material, a warming-up session, a debate including different stake-holders, professionals and policy makers, a working group attended only by laypeople, and an optional communication session, a public meeting where the conclusions and recommendations produced in the previous sessions are presented to an audience.

As far as the deliverables showing a delivery date are concerned, progress of each WP including deliverables and associated milestones were submitted on due time or with a little delay during the project lifetime. No management or organisational issue or obstacle has been reported.

#### **Main achievements according to Programme objectives**

As the expected impacts for topic SiS-2008-3.0.3.1 of the Call demanded, the project implemented co-operation and networking between science centres, museums and aquariums on public engagement with science. Science communication addressed to laypeople has been implemented in several national events and through printed material and the website, but also two-way communication was achieved in debates, working groups and assessment of recommendations from laypeople to policy makers, experimenting participative democracy tools. The targeted audience included several schools and teachers therefore tackling the need expressed by the European Commission of paying a particular attention to the engagement of the young generations with scientific issues.

#### **Main achievements according to SiS Dimensions**

The project was relevant for the SiS 'Science Literacy' dimension, and it dealt primarily with enhancing a two-way communication of scientific contents regarding a topic of public interest: in this way it attempted to answer to the public need of sound scientific information about a debated issue, which is often victim of over-simplified media storytelling, and at the same time it implemented debates on the topic asking for citizens, and especially youngsters, active participation. The project therefore follows the trend of fully exploiting the potential of informal education in science. Furthermore, in achieving an active engagement of laypeople with science, the 'Civil society and citizen participation' dimension was also addressed by the project activities.

#### **DISSEMINATION AND ENGAGEMENT ACTIVITIES AIMED AT TRANSFERRING THE PROJECT RESULTS TO WIDER COMMUNITIES**

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Dissemination was a crucial goal of the project. The web platform ([www.i-do-climate.eu](http://www.i-do-climate.eu)), obtained 26,000 hits, in particular in occasion of the kick-off events and the launch of new sections of the website. 160 contributions from users have been uploaded in the dedicated section. On the European level, the Consortium could benefit from the link with the Ecsite group, and information on the project and mobilising advertisement have been disseminated through Ecsite communication channels, such as the presentation of the Ecsite Declaration on Public Engagement in Climate Change, the Ecsite website, E-newsletter, thematic group, in-depth quarterly published newsletter, and the Ecsite Annual Conference. Partners individual networking channels have also been exploited, as it was envisaged in the initial plan. The project participated in 6 international festivals and conferences, where project leaflets have been distributed. Furthermore, several events have been organised at the national level: teachers trainings, workshops with pupils, science shows and debates have been attended by many people, especially youngsters, in Belgium, Denmark, Estonia, Finland, France, Israel, Italy, Sweden and the UK; press conferences and press releases have been arranged locally and transnationally.

#### **PROJECT IMPACTS**

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The ACCENT Consortium envisaged a growth in the awareness and understanding of scientific research on climate change as the crucial impact of their activities, along with giving a chance to the public to express its views and questions on the topic, and therefore enhancing its engagement with science.

The composition of the Consortium shows a relatively low centrality, with only one institution among the best 10% in FP7, namely the Association Europeenne des Expositions Scientifiques, Techniques et Industrielles.

No scientific publication resulted from the project, which furthermore had no direct impact on policies and informed no subsequent scientific exhibition management. Social media coverage of the project during its period of life and after its conclusion is irrelevant, counting only 5 posts. Anyway, grounding on the decisions taken in occasion of COP15 Conference in Copenhagen, where ACCENT Consortium was also involved, COP16 Conference in Cancún brought to the Cancún Agreement on Climate change, welcomed by the European Union. Furthermore, the networking activities of the partners during the project lifetimes obtained that six other science centres and museums joined the mobilising campaign of ACCENT. In this way the number of 3,8 million visitors of the partners of the Consortium has been brought to 8 million potential addressees of the campaign.

### EU ADDED VALUE OF THE PROJECT

The EU added value of the ACCENT project seems to be relevant as far as dissemination is concerned. The co-operation and synergies of science centres and museums from 8 different European countries and Israel have been managed so as to implement effective actions both locally and transnationally. Furthermore, the participation within the project of Ecsite, with its networks and communication channels, facilitated the possibility of obtaining a Europe-wide public outreach.

### PARTICIPANTS AND RESEARCH TEAM

#### Participants

Number of participants: 15

Number of countries involved: 9

	Type	Country	Role	Previous participations to FP
FONDAZIONE IDIS-CITTA DELLA SCIENZA	OTH	IT	Coordinator	7
UNIVERSEUM	PRC	SE	Participant	3
TIEDEKESKUSSAATIO	OTH	FI	Participant	3
TECHNIQUEST	PRC	GB	Participant	1
STIFTELSEN TEKNIKENS HUS	OTH	SE	Participant	5
SOCIETE D'EXPLOITATION DU CENTRE NATIONAL DE LA MER	PRC	FR	Participant	2
SIHTASUTUS TEADUSKESKUS AHHA	OTH	EE	Participant	11
LAPIN YLIOPISTO	HES	FI	Participant	5
ISRAEL NATIONAL MUSEUM OF SCIENCE, TECHNOLOGY AND SPACE	PUB	IL	Participant	8
DANIEL AND MATILDE RECANATI CENTER				
FLANDERS TECHNOLOGY INTERNATIONAL	OTH	BE	Participant	3
COSTA EDUTAINMENT	PRC	IT	Participant	3
CENTER FOR FORMIDLING AF NATURVIDENSKAB OG MODERNE TEKNOLOGI FOND	OTH	DK	Participant	6
BLOOMFIELD SCIENCE MUSEUM JERUSALEM (BSMJ)	HES	IL	Participant	14
OBSERVA	REC	IT	Participant	5
ASSOCIATION EUROPEENNE DES EXPOSITIONS SCIENTIFIQUES, TECHNIQUES ET INDUSTRIELLES	OTH	BE	Participant	15

## Team Composition

Team Size: members\*

GENDER				
Female		Male		Unknown
49%		41%		10%
SENIORITY				
Average		Junior		Senior
5%		18%		77%
PhD				
No			Yes	
69%			31%	
BACKGROUND				
Applied Sciences	Health Sciences	Humanities & Social Sciences	Natural Sciences	Unknown
0%	3%	62%	21%	3%

\*The data are based on the analysis of the provided project's Description of Work.

## DELIVERABLES AND PUBLICATIONS

DELIVERABLE NO.	DELIVERABLE NAME	DUE DATE OF DELIVERY (month)	ACTUAL SUBMISSION DATE: (month)
D2.1	List of scientific publications selected	4	?
D2.2	List of communication activities selected	8	9
D2.3	Catalogue of communication activities selected	10	?
D3.1	First online version – presentation of the project and Consortium area	6	?
D3.2	Website public and interactive version	12	?
D4.1	Common communication products (logo, advertising messages, leaflets) and dissemination plan.	10	?
D4.2	Programme of the launch event in Denmark	11	?
D4.3	Press conference results In Denmark	13	14
D4.4	E-proceedings of the launch event	13	14
D4.5	Agenda of public programs delivered by each science centre	12	?
D4.6	National reports on public activities implemented by science centres/museum with the press release and review	22	?
D4.7	European report on the results of the dissemination plan / actions	24	?
D4.8	List of participants of the Danish launch event	13	?
D5.1	Guidelines for LCD	10	10
D5.2	General questionnaires for the public on climate change	12	?
D.5.3	LCD National Reports	22	?
D.5.4	Final European report on citizens' concerns with climate change	24	?

## MAIN SOURCES

ACCENT Consortium (2008). Description of Work. Annex I.  
 ACCENT Consortium (2009). List of communication activities selected.  
 ACCENT Consortium (2010). Press conference results In Denmark.  
 ACCENT Consortium (2010). E-proceedings of the launch event.  
 ACCENT Consortium (?). Website public and interactive version.  
 ACCENT Consortium (?). Common communication products (logo, advertising messages, leaflets) and dissemination plan.  
 ACCENT Consortium (?). National reports on public activities implemented by science centres/museum with the press release and review.  
 ACCENT Consortium (?). European report on the results of the dissemination plan / actions.  
 ACCENT Consortium (?). General questionnaires for the public on climate change.

ACCENT Consortium (?). LCD National Reports.

ACCENT Consortium (?). Final European report on citizens' concerns with climate change.  
[www.i-do-climate.eu](http://www.i-do-climate.eu)

## **ESCONET TRAINERS - "ESCONET"**

**Framework Programme: FP7 - SiS**

**Action line/Part: 5.3 Science and Society communicate**

**Activity: not applicable**

**Area: 5.3.0.2 Training actions to bridge the gap between the media and the scientific community targeting the public**

**Dimension: Science Literacy**

**Tool: Coordination and support action**

**Project Call For Proposal: FP7-SCIENCE-IN-SOCIETY-2008-1**

**Status: Closed**

**Total cost: € 609 778**

**Total EU funding: € 543 827**

**Website: <https://esconet.wordpress.com/about/>**

**Period: 01/01/2009 - 31/07/2011**

**Subjects: Education and Training**

**Project ID and Acronym: ID: 230456, ACRONYM: ESCONET**

### **BACKGROUND AND CONTEXT OF THE PROJECT AND STRATEGIC NEEDS**

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It is undoubted that one priority in the European policy regarding the relationship between science and society is that of improving science communication. Under Framework Programme 5 the ENSCoT (European Network of Science Communication Teachers) produced a series of courses for undergraduates and graduates in science communication. Under FP 6, the project ESConet widened its borders and its team composition and developed a set of workshop modules aimed at training European scientists in science communication, directly, through the traditional media or through the new media. The workshops were designed to enable researchers to effectively communicate with lay citizens, policy makers and industry. They have been tested in several occasions and resulted fruitful. There was a need to keep on implementing these training programmes and to put them into further practice.

### **SPECIFIC PROJECT OBJECTIVES**

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The FP7 ESConeT project aimed at arranging two sets of workshops for researchers in several European languages. The training would follow the modules designed within the FP6 ESConet project and two levels of advancement were envisaged:

- Basic science communication workshops, training researchers in communicative writing, interviews and web writing and design;
- Advanced science communication workshops, training already experienced scientists in effective communication with policy makers, perspective funders, in communicating risk and engage in dialogue with lay citizens and interest groups.

### **SaS/SiS Programme objectives/Activity Lines**

This project's overall objective is relevant to the call SiS-2008-3.0.2.1, which called for training activities for high-level EC-funded scientists, chosen by the Commission. According to this call, the training should improve scientists' abilities to interact with national and international media, including both traditional audio-visual ones and the new media. However, project's specific objectives do not address directly any of the Programme objectives for this topic.

### **Innovation Union**

The project's objective of tutoring European scientists on science communication was relevant for the promotion of skills development and training researchers in Europe.

### **ERA**

Optimal transfer of scientific knowledge, in particular as far as the communication between scientific world and laypeople is concerned, could be positively affected by the workshops envisaged by the project Consortium. Furthermore, enhancing scientists' ability to communicate with perspective funders and policy makers could help promoting greater investments in research.

### **SaS Action Plan**

The project is partially relevant for action 2, which aims at establishing a better interaction between scientific community and the media.

### **PROJECT RESULTS AND OUTCOMES**

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#### **Results and outcomes according to project objectives**

During the project, 20 three-day residential workshops were successfully organised, making use of the modular approach that had been designed under the FP6 funding. These workshops and successfully trained 230 researchers from 34 countries (25 EU countries, 7 European non-EU countries and 2 non-European countries). ESConeT actual outcomes were:

- A **set of 10 workshops organised** in caas (centre for advanced academic studies) in Dubrovnik in 2009, attracting 163 trainees (103 for the basic workshops and 60 for the advanced ones);
- A **set of 10 workshops** were organised in caas in 2010 (124 individuals trained, including attendees already trained in the first set of workshops);
- A **set of three non-EC funded workshops** were arranged in Bulgaria, Denmark and Italy; ;
- A **constant optimisation of the format and update of the modules**, resulting in expansion of scenarios for risk communication in the advanced workshops.

The first battery of workshops highlighted the fact that senior researchers are not always senior communicators: for this reason, it seems that attendants of 2009 advanced workshops had shown some dissatisfaction. Therefore, the 2010 advanced workshops addressed only researchers who had already attended courses, seminars or workshops on science communication.

In addition to the non EC-funded workshops in Bulgaria, Denmark and Italy, a new set of semi-commercial workshops was envisaged for 2011. However, probably due to the financial crisis in Europe, these workshops did not reach the sufficient number of subscriptions and were cancelled.

Progress of each WP including deliverables and associated milestones were constantly submitted during the project lifetime, but even though the project had participated within the EC funding since FP5, it seems that the rules for naming and dating the deliverables were not followed by the coordinator. Anyway, all the due deliverables were eventually submitted.

#### **Main achievements according to Programme objectives**

The project implemented a mass training activity during its 24-month lifetime, addressing the goal of preparing top European scientists to present their work to international media in a convincing, clear and accessible way. In particular, the researchers were selected by the Commission, as stated in the Call, and the trainers were in most cases recognised media professionals and academics. Workshops were held in one country but addressed several researchers from 34 countries and trainers could uptake courses in several European languages, ensuring a transnational approach and media training in several EU languages, as SiS call 2008-3.0.2.1 called for. The training activities moved towards a more effective science communication to a EU-wide public.

#### **Main achievements according to SiS Dimensions**

The project was relevant for the SiS 'Science Literacy' dimension. It implemented a series of workshops to train scientists in communicating with the media, and in doing so it is in line with other actions within the dimension, which are generally "conservative" and follow classical formats of science education and communication.

#### **DISSEMINATION AND ENGAGEMENT ACTIVITIES AIMED AT TRANSFERRING THE PROJECT RESULTS TO WIDER COMMUNITIES**

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Dissemination of foreground and outcomes was not envisaged as such in the Description of work of the ESConeT project. However the coordinator gave talks in **three conferences** during the project lifetime, one in Turin (Italy), one in Cape Town (South Africa) and one in New Delhi (India), and participated in **two workshops** in Italy, where the project was presented. **One scientific publication** was also delivered. The project launched its own web page ([www.esconet.org](http://www.esconet.org)) where the workshop modules were fully explained and training material was also downloadable.

#### **PROJECT IMPACTS**

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At the outset of the project, ESConeT was expected to make a step change in the impact of European research on the perceptions and knowledge of European citizens at large, by training 200-400 EC-funded scientists in science communication. Anyway, according to questionnaires filled by attendees of the workshops, scientists averagely found science communication slightly easier prior to participating in the workshop than after attending them, but the self-confidence rate of scientists in taking up science communication activities resulted in having very moderately risen.

The institution coordinating of the project (which is the only member of the project) shows a very high centrality, being among the 1% most central organisations in FP7 network. Being central in a network means that the organisation has a high capacity to diffuse and spread information and knowledge, which increases the potential

impact of the project. However, for what concerns the scientific attractiveness<sup>114</sup>, the project coordinator was not included in the Leiden University ranking.

**The project actual impacts** were:

- **Scientific impact:** one publication resulted from the project, cited by 15 other publications according to Google Scholar.
- **Social media impact:** the social media coverage of the project during its period of life and after its conclusion can be considered moderate, counting a total of 18 posts from the outset of the project to July 2013.
- **Institutional and organisational impact:** the project left, as “legacy”, a blog at [www.esconet.wordpress.com](http://www.esconet.wordpress.com), where training materials, workshop modules and major deliverables are available for download, along with the presentation of trainers and institutions involved in the European Science Communication Network. The new blog was active since May 2012 but it seems it has not been updated since then.
- **Policy impact:** the project appears not to have had any impact on policies.

## EU ADDED VALUE OF THE PROJECT

The EU added value of the ESConeT is explained in the Description of Work of the project. It states that the European dimension of the training is crucial to form *European* scientists as communicators, and the collaboration with the European Commission in selecting EC-funded scientists eligible for the workshops was at the base of the call for attendance to the training sessions.

## PARTICIPANTS AND RESEARCH TEAM

### Participants

Number of participants: 1

Number of countries involved: 1

	Type	Country	Role	Previous participations to FP
LUDWIG INSTITUTE FOR CANCER RESEARCH	HES	GB	Coordinator	600

### Team Composition

Team Size: members\*

GENDER				
Female	Male		Unknown	
43,0%	57,0%		0,0%	
SENIORITY				
Average	Junior		Senior	
10%	19%		71%	
PhD				
No	Yes			
29%	71%			
BACKGROUND				
Applied Sciences	Health Sciences	Humanities & Social Sciences	Natural Sciences	Unknown
0,0%	0,0%	81,0%	10,0%	0,0%

114 Potential scientific attractiveness of the participating organisations to the project is used, in our study, to evaluate the potential of the project to produce publications and other scientific outputs.

\*The data are based on the analysis of the provided project's Description of Work.

### DELIVERABLES AND PUBLICATIONS

DELIVERABLE NO.	DELIVERABLE NAME	DUE DATE OF DELIVERY (month)	ACTUAL SUBMISSION DATE: (month)
D1.1	ESConeT Periodic Report P1 (1-12)	12	?
D1.2	ESConeT Financial Report P1 (1-12)	12	?
D1.3	ESConeT Periodic Report P2 (13-24)	24	?
D1.4	ESConeT Financial Report P2 (13-24)	24	?
D1.5	Certificate of financial statements (1-24)	24	?
D1.6	ESConeT Final Report P3 (1-24)	24	?
D2.1	Basic Science Communication workshop M4	4	?
D2.2	Basic Science Communication workshop M9	9	?
D2.3	Basic Science Communication workshop M16	16	?
D2.4	Basic Science Communication workshop M21	21	?
D3.1	Advanced Science Communication workshop M4	4	?
D3.2	Advanced Science Communication workshop M9	9	?
D3.3	Advanced Science Communication workshop M16	16	?
D3.4	Advanced Science Communication workshop M21	21	?

Publications no.	PUBLICATION	LINK (when available)
1.	Steve Miller, Declan Fahy (2009). Can science communication workshops train scientists for reflexive public engagement? The ESConet experience. <i>Science Communication</i> , 31, pp. 116-126 (peer-reviewed)	<a href="http://scx.sagepub.com/cgi/content/abstract/31/1/116">http://scx.sagepub.com/cgi/content/abstract/31/1/116</a>

### MAIN SOURCES

<http://www.esconet.wordpress.com/>  
 ESConeT Coordinator (2008). Description of Work. Annex I.  
 ESConeT Coordinator (?). ESConeT Periodic report P1.  
 ESConeT Coordinator (?). ESConeT Periodic report P2.  
 ESConeT Coordinator (?). Basic Science Communication Workshops Reports.  
 ESConeT Coordinator (?). Advanced Science Communication Workshops Reports.  
 ESConeT Coordinator (2011). Workshops in Science Communication. Final Report.



## **SCIENCE EDUCATION FOR DIVERSITY - "SED"**

**Framework Programme: FP7**

**Action line/Part: 5.2 Strengthening potential, broadening horizons**

**Activity: 5.2.2. Young people and science**

**Area: 5.2.2.3. Research and coordination actions on new methods in science education**

**Dimension: SCIENCE LITERACY**

**Tool: Collaborative project**

**Project Call For Proposal: FP7-SCIENCE-IN-SOCIETY-2009-1**

**Status: Closed**

**Total cost: € 1 409 821.6**

**Total EU funding: € 999 982.00**

**Website: <http://science-education-for-diversity.eu>**

**Period: 01/01/2010 - 31/12/2012**

**Subjects: Education and Training - Scientific Research**

**Project ID and Acronym: ID: 244717, ACRONYM: SED**

### **BACKGROUND AND CONTEXT OF THE PROJECT AND STRATEGIC NEEDS**

Fostering youngsters' interest towards science and technology is a crucial need to reinforce the knowledge based democratic processes on which Europe wants to ground. Anyway, in recent years, the tendency is not that of a growth of the number of scientific careers among the young generations and there are still cultural, gender and societal bias to undermine young people's engagement with science and science education. A study is needed to investigate these variables that impede youngsters choosing scientific careers and cultivating interest towards scientific matters, and to design new educational trajectories so as to make science education more effective for a knowledge based society. Furthermore, as the 2004 EC report 'Europe Needs More Scientists' calls, European scientists could benefit from improved participation from groups currently under-represented in this field of education and employment, such as members of the diverse ethnic minority groups.

### **SPECIFIC PROJECT OBJECTIVES**

The SED project aimed at investigating to what extent there is differential take-up of science education according to ethnicity, religion and gender, what factors affect this difference, and how teachers and country policies are tackling this issue. In particular, the objectives of the research were as follows:

- To analyse relations between cultural and religion beliefs in regard to science education, attitudes of young people towards science and engagement in scientific knowledge and factors affecting differences according to gender, cultural and religious identity;
- To investigate the attitude of teachers towards this differential take-up and to what extent they recognize the cultural dimension of the issue;
- To survey current policies and teachers' trainings in science education tackling diversity issues in science; and
- To identify and evaluate successful policies in this regard.

### **SaS/SiS Programme objectives/Activity Lines**

The analysis envisaged by the project Consortium tackles the objective of the Call, which points out the need of actions to understand better, and analyse how, the involved countries are designing strategies to make science education more effective, also taking into account cultural diversities and traditions. Generally speaking, the objectives of the project move toward the enhancement of the uptake of knowledge by all and the augmentation of the scientific careers in partner countries.

The objective of better understanding the role of cultural factors in science education may indirectly tackle the goal of increasing the number of young people from all backgrounds entering careers in science, research and technology.

### **SaS Action Plan**

Action 16 of SaS Action Plan (Promote more attractive methods for science education in schools) encompasses the objectives of this project.

### **PROJECT RESULTS AND OUTCOMES**

Project results according to the **project objectives**

The main achievement of the project was the **production and distribution of 2010 Eurobarometer Survey** on the Public Ethics and Socially Sensitive Technologies and the related in-depth analyses of data, compared both diachronically and transnationally. Main results and outcomes were:

- a **preliminary survey and analysis of literature** to assess evidence relevant to diversity – defined through five markers, namely Ethnicity, Religion, Language (of instruction), Habitat (urban-rural), and Gender – and science education, of policies in science education addressing diversity issues, and of school science curricula for content related to diversity;
- A **statistical analysis based on questionnaires, interviews and focus groups** involving more than 1000 individuals per country, both students and teachers, inquiring about attitudes toward science and science education, beliefs, cultural and religious background, ethnicity and gender;
- The **formulation of a theoretical framework** for understanding the relationship between culture, gender, and personal religious beliefs and science education; the framework serves for **the design of a new curriculum for Science Education that addresses the issue of cultural diversity**, along with a research on how to develop a complex curriculum and how to work with teachers and professional development in order to implement this framework;
- The **implementation of six case studies**, one per country, **aiming at investigating the feasibility of the theoretical framework**, developed within the project, in different cultural environments and educational systems. This work package involved seventeen schools worldwide, with teachers training, classroom work and questionnaires.

Progress of each WP including deliverables and associated milestones were all submitted within the 36 months of life of the project. As long as on-field work is concerned, the independent evaluation report points out that due to lack of time, most of the partners were not able to implement a second round of iteration with schools, and most of them lamented that lack of time was relevant for a sometimes unsatisfactory identification of teachers and schools willing to participate in the activities of the project.

#### **Main achievements according to Programme objectives**

The research activities conducted within work packages 2 to 4, namely the surveys of factors of the differential uptake of science education and the formulation of the theoretical framework for the design of new science curricula sustain the major goal pointed out in the Call, SiS-2009-2.2.3.2 line, of identifying, comparing and analysing different initiatives and policies in the countries involved in the project; the on-field activities and teacher trainings, on the other side, tackle the need for development of innovative methods in science education. The expected impact of linking education and the research community through seminars and workshops is not relevant for this project.

#### **Main achievements according to SiS Dimensions**

The project is relevant for the Science Literacy dimension. It regards entirely formal science education, both providing knowledge useful for renovating and affecting science curricula with regard to cultural and religious background, ethnicity and gender identity of pupils, and testing improved science curricula based on innovative pedagogical methods comparatively in European and non-European countries.

#### **DISSEMINATION AND ENGAGEMENT ACTIVITIES AIMED AT TRANSFERRING THE PROJECT RESULTS TO WIDER COMMUNITIES**

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The Consortium's partners implemented various dissemination activities nationally, along with a number of transnational actions. Among these, a website was also launched and periodically updated during the period of life of the project. The dissemination activities included the constant engagement with national stakeholders, as the initial plan for dissemination envisaged. Anyway, the number of stakeholders and the minutes of Expert panel meetings have not been reported by the Consortium, therefore it is not possible to understand whether they had the width and the effectiveness expected at the outset of the project. Other activities for the public and the academic outreach of project's findings were as follows:

- **Events:** among others, presentations, seminars and symposia at "International Conference on Mathematics, Science and Technology Education in South Africa (2010)" and "NARST Conference in Indianapolis (2012)"; one seminar at the American University of Beirut (2011); "TERA International Conference on Education" in KaoHsiung (Taiwan, 2011); one seminar at the "Pendidikan Sains dan Matematik" in Kuala Lumpur (2011); presentation and publication in conference proceedings at "The Fourth International Conference on Science and Mathematics Education in Penang, Malaysia (2011)"; a seminar in Pamukkale University (2011); four presentations in Eindhoven (2011-2012); two workshops in Mumbai on Indian educational system (2012); two teachers workshops in India (2012); organisation of the Expert Panel led by SED researchers at TARC (2012); conference presentation at Pamukkale University (2012); presentation and round table meeting at the "10th National Science and Mathematics Education Congress in Niğde (2012)"; presentations at the "Geography Teacher Educators Annual Conference" in Swansea (2012); presentation at the "Episteme Conference" (2012); presentation at the "Science Education Research Conference" at the University of York (2012); furthermore, two exhibitions have been organised, one in Malaysia for teachers and students, to whom informative material on the project has been distributed, one in India in occasion of the National Science day;
- **Publications:** four papers in conference proceedings have been published (see Publications table below).

## PROJECT IMPACTS

The outcomes of the project were expected to help formulating new conceptualisations and practices for improving teaching and learning in culturally heterogeneous environment. The overall impact was thought to be generally improving learning and teaching diversity with regard to science education. At the end of the project, the impact of SED was expected to be significant on three levels: firstly, affect the attitude of teachers involved within the project activities and possibly other teachers and schools; secondly, affect European and national policies relevant for the issues addressed by SED; and, thirdly, pushing forward the state of the art of science education knowledge. Two institutions of the Consortium are listed among the top 1% and one among the top 10%, as far as betweenness centrality is concerned. Furthermore, two University are listed in the Leiden ranking of Universities in good positions.

The SED project actual impacts can be classified into:

- **Scientific impact:** As reported in the last table of this document, four papers in conference proceedings have been published. Furthermore, a number of rich number of presentations in national and international academic venues have been reported. That suggests a positive effect of the project from the scientific point of view: the number of publications related to SED is above the average number of scientific outputs of SiS projects (0,5 publication per project).
- **Social media impacts:** There has been a moderate social impact in terms of social media listening buzz results, totalizing 35 posts.

## EU ADDED VALUE OF THE PROJECT

The project's Consortium benefited from the participation of four international partners and two member states, enhancing also a comparative reading of the findings of the research activities. The project took into consideration national cases individually and European system as a whole, both in terms of survey of current practices and identification of policies, giving a European dimension to the project.

## PARTICIPANTS AND RESEARCH TEAM

### Participants

Number of participants: 6

Number of countries involved: 6

	Type	Country	Role	Previous participations to FP
UNIVERSITY OF EXETER	HES	GB	Coordinator	166
TATA INSTITUTE OF FUNDAMENTAL RESEARCH*TIFR	HES	IN	Participant	7
PAMUKKALE UNIVERSITESI	HES	TR	Participant	1
KOLEJ TUNKU ABDUL RAHMAN	HES	MY	Participant	1
EINDHOVEN UNIVERSITY OF TECHNOLOGY	HES	NL	Participant	255
AMERICAN UNIVERSITY OF BEIRUT	HES	LB	Participant	8

### Team Composition

Team Size: members\*

GENDER				
Female	Male		Unknown	
35%	59%		6%	
SENIORITY				
Average	Junior		Senior	
6%	6%		88%	
PhD				
No	Yes			
12%	88%			
BACKGROUND				
Applied Sciences	Health Sciences	Humanities & Social Sciences	Natural Sciences	Unknown

Stock-taking and meta-analysis of Science in Society projects throughout FP6 and FP7  
Final Case Studies

0%	0%	88%	0%	12%
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\*The data are based on the analysis of the provided project's Description of Work.

### DELIVERABLES AND PUBLICATIONS

DELIVERABLE NO.	DELIVERABLE NAME	DUE DATE OF DELIVERY (month)	ACTUAL SUBMISSION DATE: (month)
D1.1	Consortium agreement	3	?
D2.1	Document , content analysis and literature analysis: Synthesis Report – publication of a single report bringing together evidence from Country Reports into a single study	12	?
D3.1	Case studies: Synthesis Report – publication of a report bringing collating national Case Studies within a single study	12	18
D4.1	Report on a pedagogical theoretical framework – production of a document & literature analysis reviewing pedagogical strategies for diversity and developing a theoretical framework offering guidance for pedagogy	15	18
D4.2	Report on a curriculum theoretical framework – production of a theoretical framework offering guidance for science curricula in schools and developing units for teachers to teach	17	18
D4.3	Report on a theoretical framework for training teacher – production of theoretical framework offering guidance for preparing teachers to teach diverse students.	19	18
D5.1	Interventions: Synthesis Report – publication of a single report providing an analysis of the results from interventions across partner countries into a single report	33	?
D6.1	Final Stakeholder Report produced – publication of a single report bringing actual title: Mapping of key issues for the Survey and Challenges to Sustainable Technological Development	36	?

Publications no.	PUBLICATION	LINK (when available)
	Sugra Chunawala & Chitra Natarajan (2011) "A Study of Policies Related to Science Education for Diversity in India". ISTE 2011 Proceedings, pp. 130-141.	<a href="http://www.hbcse.tifr.res.in/people/academic/sugra-chunawala/a-study-of-policies-related-to-science-education-2012.pdf">http://www.hbcse.tifr.res.in/people/academic/sugra-chunawala/a-study-of-policies-related-to-science-education-2012.pdf</a>
2.	Ng, Swee Chin; Choy, S. Chee & Oo Pou San (2011) "A Comparative Study of the Curriculum and Approach towards Teaching Science: An International Study". Conference Proceedings.	<a href="https://www.researchgate.net/publication/242019051_A_Comparative_Study_of_the_Curriculum_and_Approach_towards_Teaching_Science_An_International_Study">https://www.researchgate.net/publication/242019051_A_Comparative_Study_of_the_Curriculum_and_Approach_towards_Teaching_Science_An_International_Study</a>
3.	Ng, Swee Chin; Choy, S. Chee & Oo Pou San (2011) "An Analysis of the Attitudes and Conceptual Interpretations of Science of Malaysian Students Data from the Science Education for Diversity Project". Conference Proceedings.	<a href="https://www.researchgate.net/publication/247152750_An_Analysis_of_the_Attitudes_and_Conceptual_Interpretations_of_Science_of_Malaysian_Students_Data_from_the_Science_Education_for_Diversity_Project">https://www.researchgate.net/publication/247152750_An_Analysis_of_the_Attitudes_and_Conceptual_Interpretations_of_Science_of_Malaysian_Students_Data_from_the_Science_Education_for_Diversity_Project</a>
4.	Ng, Swee Chin; Choy, S. Chee & Oo Pou San (2013) "The Challenges of Constructing a Model for Science Education – Differences in Students' and Teachers' Attributes of Six Partner Countries". Conference Proceedings.	<a href="https://www.researchgate.net/publication/259782690_The_Challenges_of_Constructing_a_Model_for_Science_Education_-_Differences_in_Students'_and_Teachers'_Attributes_of_Six_Partner_Countries">https://www.researchgate.net/publication/259782690_The_Challenges_of_Constructing_a_Model_for_Science_Education_-_Differences_in_Students'_and_Teachers'_Attributes_of_Six_Partner_Countries</a>

### MAIN SOURCES

SED Consortium (2009). Description of Work. Annex I.  
 SED Consortium (2011). Work Package 3 Synthesis Report.  
 SED Consortium (2011). The International Science Education Survey of Pupils and Teachers  
 SED Consortium (2011). Deliverable 4.1.  
 SED Consortium (2011). Researching the process of change.  
 SED Consortium (2011). *Guidance for teacher training*  
 Scholars Consulting (2012). SED Final Evaluation Report for the University of Exeter.

SED Consortium (2013). Project Final Report  
SED Consortium (?). Exploration: Documentary Analysis  
SED Consortium (?). Final report on project findings.  
SED Consortium (?). UK National Report.  
SED Consortium (?). Report on SED-related Intervention - Turkey.  
SED Consortium (?). India Report.  
SED Consortium (?). Intervention (Malaysian Context).  
SED Consortium (?). Country Report: The Netherlands.  
SED Consortium (?). Lebanon National Report.  
SED Consortium (?). Final Report on the Engagement with Stakeholders to Achieve Impact.

**Websites:**

<http://www.marchmont.ac.uk/projects/detailpage.asp?MarchmontProjectID=26>

<http://www.science-education-4-diversity.eu/>

<http://www.hbcse.tifr.res.in/people/academic/sugra-chunawala/>

<https://www.researchgate.net/publication/259782690> The Challenges of Constructing a Model for Science Education - Differences in Students' and Teachers' Attributes of Six Partner Countries

<https://www.researchgate.net/publication/247152750> An Analysis of the Attitudes and Conceptual Interpretations of Science of Malaysian Students Data from the Science Education for Diversity Project

<https://www.researchgate.net/publication/242019051> A Comparative Study of the Curriculum and Approach towards Teaching Science An International Study

## **PROFESSIONAL REFLECTION-ORIENTED FOCUS ON INQUIRY-BASED LEARNING AND EDUCATION THROUGH SCIENCE - "PROFILES"**

**Framework Programme: FP7**

**Action line/Part: 5.2 Strengthening potential, broadening horizons**

**Activity: 5.2.2. Young people and science**

**Area: 5.2.2.1. Supporting formal and informal science education in schools as well as through science centres and museums and other relevant means**

**Dimension: SCIENCE LITERACY**

**Tool: Coordination and support action**

**Project Call For Proposal: FP7-SCIENCE-IN-SOCIETY-2010-1**

**Status: Ongoing**

**Total cost: € 3 837 022.4**

**Total EU funding: € 3 447 910.00**

**Website: Website no longer available**

**Period: 01/12/2010 - 31/05/2015**

**Subjects: Coordination and Cooperation - Education and Training - Innovation and Technology Transfer**

**Project ID and Acronym: ID: 266589, ACRONYM: PROFILES**

### **BACKGROUND AND CONTEXT OF THE PROJECT AND STRATEGIC NEEDS**

Renewal of science education is a crucial goal of the Seventh Framework programme. Inquiry-based Science Education is expected to be undertaken by more and more teachers, as well as classwork more and more engaging for pupils and students is needed. In this regard, there is a need for teacher training and capacity building in order to implement new curricula and professional development in schools and non-formal education centres and to enhance the identification and diffusion of good practices in science education and new teaching approaches.

### **SPECIFIC PROJECT OBJECTIVES**

The PROFILES project aimed at sustaining the improvement of science education by training pre- and in-service teachers and by promoting inquiry-based science education. In particular, the PROFILES project's specific objectives were as follows:

- Establishing a consortium of stakeholders with the aim of introducing PROFILES ideas into a multitude of different educational systems and cultures and developing strategies of wide outreach of these ideas Europe-wide through a mobilisation campaign;
- Offering innovative learning opportunities for pre- and in-service teachers and teacher educators as well as for students within the school and non-formal education centres; and
- Taking into account stakeholder's views in seeking ways to raise teacher ownership and self-efficacy of innovative science teaching approaches and inquiry-based education modules.

### **SaS/SiS Programme objectives/Activity Lines**

The interventions envisaged by the project's Consortium aimed at spreading good practices in science education and enhance a more effective professionalization of teachers and teacher trainers in Europe, tackling the Innovation Union strategic need of promoting excellence in education and skills development. The uptake of Inquiry based Science Education is the overall goal of activity 5.2.2 of the FP7-SiS-2010 Call for Proposals. Not only the iteration with schools and teacher training tackle the overall goal of spreading innovation in teaching approaches, but the evaluation of the implementation of innovative teaching approaches may help to understand the degree and impact of ongoing innovation, needed to ensure the quality of future EU initiatives in this field. Innovation in formal science education participates to the process of increasing the number of young people from all backgrounds entering careers in science, research and technology.

### **SaS Action Plan**

Project's objectives participate in the promotion of more attractive methods for science education in schools (action 16).

### **PROJECT RESULTS AND OUTCOMES**

Project results according to the **project objectives**

The PROFILES project's Consortium took successful moves toward the implementation of all the work packages foreseen at the outset. Main results and outcomes were:

- The **arrangement of PROFILES Curricular Delphi Study on Science education and Scientific literacy**, involving more than 2,000 stakeholders, such as students, teachers, education researchers, scientists and

other experts, in three rounds of iteration; the interaction with stakeholders and the meta-analyses of the survey data helped the Consortium formulating a European shared perspective on science education, identifying needs and priorities;

- The **production of teaching modules**, partially inspired by the PARSEL project's foreground, and the active use of these in class, in order to formulate and design the teaching environment; project modules have been produced, but individually developed modules by country in local languages were far more numerous; all the modules have been uploaded on the local webpages and a little number of these projects have been translated into English and uploaded in the general project web portal;
- **Teacher training**, through Continuous Professional Development models, designed within the project as a four step process for the teacher: **teacher as a student, teacher as a teacher, teacher as a practitioner and teacher as a leader**; this last step regards the possibility of some teachers, included in the intervention, to become multipliers of the PROFILES teaching philosophy and to train other teachers in future;
- The **evaluation of the degree of participation of teachers** within the PROFILES philosophy and goal, measured in terms of self-efficacy and teachers' ownership; the evaluation was conducted through the analysis of teachers' portfolios, of a number of case studies collected by the partners nationally;
- The **debate on, adaptation, design and implementation of instruments to assess students gains**, that relate to cognitive, meta-cognitive, inquiry learning, problem solving, decision-making as well as variables to evaluate students' intrinsic motivation to learn science; in particular, the pre-post-test design was identified as a fruitful means of evaluation by the Consortium and several national reports as well as comparative surveys have been conducted; both the pre-post-test data analysis and the treatment-control-group assessments showed that the implementation of PROFILES modules in classwork was from moderately to highly successful in shaping lessons closer to students expectations and in having a positive impact on students' engagement with science;
- The launch on **local webpages** related to each partner and of **an international web platform**, including the production of an e-newsletter and the arrangement of several publications and presentations (see Dissemination section below), aimed at disseminating the results, networking and mobilising teachers and institutions to join the PROFILES teaching philosophy;

Some major delays occurred in the delivery of documents and milestones, most due to sudden changes in the composition of the Consortium, with the withdrawal of some partners during the period of life of the project. Furthermore, delayed translations of documents from the local language to English and from English to the local languages and delayed provision of minutes of conferences and meetings was the cause for further delays. The project was extended for six months, with the agreement of the Commission, in order to fulfil all the objectives, envisaged at the outset. Despite these delays, all the problems were promptly discussed and solved by the Consortium and all the due deliverables have been eventually submitted.

### **Main achievements according to Programme objectives**

The project's outcomes were relevant for supporting and coordinating actions on innovative methods in science education, namely teacher training on inquiry based teaching methods on a large scale in Europe, as the topic SiS-2010-2.2.1-1 of the call for proposals explicitly asks. The IBSE, along with other innovative teaching approaches, were designed, tested in classwork and disseminated through a wide campaign of teacher training, with a particular focus on ensuring and assessing the self-efficacy and the commitment of teachers after the training, implementing therefore the requested synergy between theory and practice. IBSE participates in bringing science issues into classrooms. The large scale was also successfully covered by the project, including 22 institutions from 20 different countries in its Consortium.

### **Main achievements according to SiS Dimensions**

The PROFILES project was relevant for the SiS Science Literacy dimension, focusing in particular with the education action. The project implemented teacher trainings and teaching modules in schools, which were positively evaluated according to the assessment of student gains, and therefore successfully boosted interest in scientific matters among pupils. It focused therefore exclusively on formal scientific education.

### **DISSEMINATION AND ENGAGEMENT ACTIVITIES AIMED AT TRANSFERRING THE PROJECT RESULTS TO WIDER COMMUNITIES**

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Dissemination and networking were core dimensions of the whole project. The outreach of PROFILES teaching approach and philosophy was considered as a crucial objective at the outset of the project and several moves have been taken toward the fulfilment of a wide engagement of academia and other relevant stakeholders in science education and popularisation. Consortium launched at the outset of the project an international web platform, which was updated during the period of life of the project with several sections and included downloadable versions of the teaching modules, designed by partners. Along with the central website, all the partners developed local webpages in the local languages. The dissemination of foreground was conducted by the partners according to the initial dissemination plan and often went beyond expectations. It included the following activities:



- **Presentations/workshops/conferences:** more than 220 presentations regarding PROFILES have been conducted in several international venues, such as the 11th European Conference on Research in Chemical Education - ICCE-ECRICE 2012 in Rome, the Annual Meeting of the National Association for the Research on Science Teaching, Puerto Rico, 2013, and the Biannual Meeting of the European Science Education Research Association (ESERA) 2013, Nicosia (Cyprus), among others; more than 90 papers in German language and almost 60 in other languages have been presented in national venues; furthermore, several workshops have been conducted nationally and transnationally and two PROFILES conferences, on Stakeholders' Views and on Enhancing Scientific Literacy, have been convened;
- **Publications:** the Consortium published three books related to PROFILES activities, two books regarding international conferences and a book of best practices; two special issues of academic journals have been edited and 18 peer-reviewed articles have been accepted and published; furthermore, approximately 280 contributions, among chapters in books, articles in journals etc., have been distributed in English language about the PROFILES activities and outcomes, 52 articles in German and 33 articles in other local languages (see Publications table below);
- **Advertising material and newsletter:** 6 issues of the international newsletter have been distributed; leaflets and posters regarding the project findings and activities have been widely disseminated;
- **Networking:** the PROFILES networks were expanded step by step in the partner countries and at the end of the project involved approximately 21,400 stakeholders, mostly teachers, CPD providers, pre-service teachers, and so on, at regional, national and international level. The number of stakeholders engaged exceeded the expected impact of 20,000 teachers.

## PROJECT IMPACTS

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The PROFILES project was expected to have a strong impact on teachers engaged directly within the iterations and seemingly a relevant impact on several other stakeholders indirectly involved. Firstly, the teachers were expected to become more aware of stakeholders' views, therefore **bridging the gap between stakeholders and teachers**; furthermore, the teachers were expected to acquire further **awareness on new pedagogical knowledge**, take up actively innovative teaching approaches, showing self-efficiency and ownership; secondly, the Consortium envisaged the **development of additional networks** to aid wide dissemination of evidence-based best practices ideas to science teachers and science educators; thirdly, an increased awareness of innovative teaching approaches and commitment in the **development of innovative curricula among policy makers** in science education, was also expected.

The Consortium included a total of 24 institutions (including institutions that abandoned the project and institutions that joined after the outset). Among these, seven institutions showed a very high centrality (among the top 1% in SiS), and fourteen institutions with high centrality (ten among the 5% and four among the 10%). Nine Universities are well positioned in the Leiden Ranking (the best ones ranking 134<sup>th</sup>, 231<sup>st</sup>, and 238<sup>th</sup>, the others positioned between the 344<sup>th</sup> and the 635<sup>th</sup> place).

The PROFILES project **actual impacts** can be classified into:

- **Scientific impact:** As reported in the last table of this document, an impressive amount of refereed articles related to the project have been published. Furthermore, more than 350 related publications have been distributed in English and other languages and information on the project and its results was presented in national and international venues more than 370 times. That suggests an extremely positive effect of the project from the scientific point of view.
- **Impact on stakeholders:** approximately 21,400 stakeholders were involved in the activities of the project and a large number of students were exposed to innovative teaching modules designed by the partners. The evaluation and assessment of teachers' commitment showed a positive success in terms of teachers' ownership, which may mean that these teacher are expected to keep implementing the new teaching approaches and the modules.
- **Social media impacts:** There has been no relevant social impact in terms of social media listening buzz results, with a total of 17 posts.

## PATH-BREAKING ADVANCEMENTS

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The PROFILES project engaged several teachers in teacher training activities and in active iterations in schools, as well as assessments of stakeholders' views, assessments of teachers' commitment and student gains. In this regard, the project went beyond the recommendations of the 2007 EC report on Science Education, by including the perspective of teachers' ownership into account: the project not only implemented modules and disseminated them among teachers, but by a long-term training and interaction and designing of modules stemmed from evaluations of teachers experiences in class, implemented the professional development of teachers as PROFILES teachers, as well as multipliers of innovative approaches.



## BEST PRACTICES

The Consortium at the end of its life included 22 institutions from 20 different countries, showing an impressively wide geographical coverage, not only of Mediterranean countries, such as Cyprus and Israel, but also post-Soviet countries, where an effective dissemination of inquiry-based science education and awareness of new teaching approaches were strongly needed.

## EU ADDED VALUE OF THE PROJECT

The Consortium pointed out that a European approach was required because the need for innovation in teaching science goes beyond the local, regional or national level. Furthermore, the EU dimension was considered as crucial because it gives teachers the opportunity to gain a wider perspective and exchange practices successfully implemented in different environments, and because it enhances the accumulation of best practice evidence across Europe and their dissemination in other countries, such as the post-Soviet countries, where IBSE teaching approach is yet to be widely implemented. Furthermore, making policy makers and other stakeholders aware of impacts across a range of countries, and not only bound to local considerations was felt as possible only through the participation of the Consortium within a European Framework programme.

## PARTICIPANTS AND RESEARCH TEAM

### Participants

Number of participants: 24

Number of countries involved: 22

	Type	Country	Role	Previous participations to FP
FREE UNIVERSITY OF BERLIN	HES	DE	Coordinator	105
INTERNATIONAL COUNCIL OF ASSOCIATIONS FOR SCIENCE EDUCATION	OTH	GB	Participant	2
UNIVERSITY OF LJUBLJANA	HES	SI	Participant	159
UNIVERSITY OF LATVIA	HES	LV	Participant	39
UNIVERSITY OF BREMEN	HES	DE	Participant	124
UNIVERSITY OF PORTO	HES	PT	Participant	76
UNIVERSITY OF COPENHAGEN	HES	DK	Participant	397
CYPRUS UNIVERSITY OF TECHNOLOGY	HES	CY	Participant	24
DOKUZ EYLUL UNIVERSITESI	HES	TR	Participant	14
UNIVERSITY OF TARTU	HES	EE	Participant	101
UNIVERSITY OF UTRECHT	HES	NL	Participant	260
ILIA STATE UNIVERSITY*ILIAUNI	HES	GE	Participant	3
UNIwersytet Marii Curie-Skłodowskiej	HES	PL	Participant	14
ITA-SUOMEN YLIOPISTO	HES	FI	Participant	71
KARLSTADS UNIVERSITET	HES	SE	Participant	14
MASARYKOVA UNIVERZITA	HES	CZ	Participant	62
NATIONAL UNIVERSITY OF IRELAND	HES	IE	Participant	205
UNIVERSITA POLITECNICA DELLE MARCHE	HES	IT	Participant	49
UNIVERSITY OF DUNDEE	HES	GB	Participant	92
WEIZMANN INSTITUTE OF SCIENCE	HES	IL	Participant	215
UNIVERSITY OF VALLADOLID	HES	ES	Participant	24
UNIVERSITY OF KLAGENFURT	HES	AT	Participant	27
UNIVERSITATEA VALAHIA TARGOVISTE	HES	RO	Participant	4
FACHHOCHSCHULE NORDWESTSCHWEIZ	HES	CH	Participant	32

### Team Composition

Team Size: members\*

GENDER		
Female	Male	Unknown
48%	51%	2%
SENIORITY		
Average	Junior	Senior
14%	11%	75%
PhD		

Stock-taking and meta-analysis of Science in Society projects throughout FP6 and FP7  
Final Case Studies

No		Yes		
13%		87%		
BACKGROUND				
Applied Sciences	Health Sciences	Humanities & Social Sciences	Natural Sciences	Unknown
0%	2%	87%	6%	0%

\*The data are based on the analysis of the provided project's Description of Work.

### DELIVERABLES AND PUBLICATIONS

DELIVERABLE NO.	DELIVERABLE NAME	DUE DATE OF DELIVERY (month)	ACTUAL SUBMISSION DATE: (month)
D1.1	Kick-off Meeting	1	10
D1.2	Website and booklet	4	10
D1.3	PROFILES Conferences	46	47
D2.1	Guidelines for coordination between partners	5	10
D2.2	Reports about professional support	34	38
D2.3	Agenda for and reports of meeting	46	54
D2.4	Final Report on partner co-operation and professional support	46	54
D3.1	First Report to the stakeholders	8	13
D3.2	Second Report to the stakeholders	15	18
D3.3	Third Report to the stakeholders	22	27
D3.4	Report on the findings obtained from the stakeholders and its implications	43	46
D3.5	Final report on stakeholder involvement and interaction	46	47
D4.1	Teachers training material	9	13
D4.2	Report (on the development of training/intervention materials/modules for teachers, based on evaluative findings across partners)	17	18
D4.3	Additional and revised teachers training material	33	39
D4.4	Final report on learning environments	36	52
D5.1	Plans for in-service training strategies for the partners	6	13
D5.2	Teacher training model	24	36
D5.3	Revised teacher training model	35	36
D5.4	Record actual title: Report on comparison and reflection of teacher training and intervention strategies across partners	36	37
D5.5	Final report teacher training and intervention	36	53
D6.1	Guidelines (for promotion of teachers' ownership related to the teaching of PROFILES' modules)	21	24
D6.2	Workshops for teachers	39	42
D6.3	Portfolios and e-Portfolios for teachers	45	52
D6.4	Case studies (by means of action-research on project carried out by teachers)	45	49
D6.5	Report (on promoting Self-efficacy of teachers and on developing their stages of concerns)	46	48
D6.6	Final Report on the analyses of teacher ownership	47	54
D7.1	Assessment instruments	9	13
D7.2	Data to determine student gains	44	51
D7.3	Report on student gains	47	52
D7.4	Final report on the analyses of student gains	47	54
D8.1	Project website in the local languages	6	13
D8.2	Networking system	9	13
D8.3	PROFILES project newsletters	43	44
D8.4	Reports on dissemination/networking	35	36
D8.5	Proceedings of the International PROFILES conferences on Stakeholder views	33	25
D8.6	Book of PROFILE best practice	44	45
D8.7	Proceedings of the international PROFILES conferences	45	45
D8.8	Final report on dissemination and network	47	53

Publications no.	PUBLICATION	LINK (when available)
	Bolte, C., Holbrook, J., & Rauch, F. (Eds.). (2012). <i>Inquiry-based Science Education in Europe: Reflections from the PROFILES Project</i> . Berlin: Freie Universität Berlin (Germany) / Klagenfurt: Alpen-Adria-Universität Klagenfurt (Austria).	<a href="http://ius.uni-klu.ac.at/misc/profiles/files/Profiles%20Book%202012_10.pdf">http://ius.uni-klu.ac.at/misc/profiles/files/Profiles%20Book%202012_10.pdf</a>
2.	Bolte, C., Holbrook, J., Mamlok-Naaman, R., Rauch, F. (Eds.). (2014). <i>Science Teachers' Continuous Professional Development in Europe. Case studies from the PROFILES project</i> . Berlin: Freie Universität Berlin (Germany) / Klagenfurt: Alpen-Adria-Universität Klagenfurt (Austria).	<a href="http://ius.aau.at/profiles/files/PROFILES_book2.pdf">http://ius.aau.at/profiles/files/PROFILES_book2.pdf</a>
3.	Bolte, C., & Rauch, F. (Eds.). (2014). <i>Enhancing Inquiry-based Science Education and Teachers Continuous Professional Development in Europe: Insights and reflections on the PROFILES Project and other Projects funded by the European Commission</i> . Berlin: Freie Universität Berlin (Germany) / Klagenfurt: Alpen-Adria-Universität Klagenfurt (Austria)	<a href="http://ius.aau.at/profiles/files/PROFILES_book3.pdf">http://ius.aau.at/profiles/files/PROFILES_book3.pdf</a>
4.	CEPS Journal – Special Issue PROFILES Center for Educational Policy Studies (C-E-P-S) Journal ISSN 2232-2647 (online edition); ISSN 1855-9719 (printed edition)	<a href="http://www.cepsj.si/pdfs/cepsj_4_1/CEPS_Journal_4-1_2014.pdf">http://www.cepsj.si/pdfs/cepsj_4_1/CEPS_Journal_4-1_2014.pdf</a>
5.	Science Education International – Special Issue PROFILES ISSN: 2077-2327 Publisher: International Council of Associations for Science Education (ICASE) Volume 25 Issue 2 Special Issue (2014)	<a href="http://www.icasonline.net/seiweb/index.php?option=com_content&amp;view=article&amp;id=108:volume-25-issue-2-specialissue-2014&amp;catid=37:archive-2011-2014&amp;Itemid=108">http://www.icasonline.net/seiweb/index.php?option=com_content&amp;view=article&amp;id=108:volume-25-issue-2-specialissue-2014&amp;catid=37:archive-2011-2014&amp;Itemid=108</a>
6.	Ambrosi, D. (2014). <i>A Renaissance Enigma: Raphael and the Lustre Technique</i> . In C. Bolte & F. Rauch (Eds.), <i>Enhancing inquiry-based science education and teachers' continuous professional development in Europe: Insights and reflections on the PROFILES project and other projects funded by the European Commission</i> (pp. 150–154). Berlin: Freie Universität Berlin (Germany) / Klagenfurt: Alpen-Adria-Universität Klagenfurt (Austria).	
7.	Battistini, L., Frattoni, P., Gallina, A., Celestina, C., Guardati, N., Lattanzi, C. Stortini, S. & Terzi, M. (2014). <i>With Flying Colours</i> . In C. Bolte & F. Rauch (Eds.), <i>Enhancing inquiry-based science education and teachers' continuous professional development in Europe: Insights and reflections on the PROFILES project and other projects funded by the European Commission</i> (pp. 154–157). Berlin: Freie Universität Berlin (Germany) / Klagenfurt: Alpen-Adria-Universität Klagenfurt (Austria).	
8.	Belova, N. & Eilks, I. (2014). <i>Using advertisings to introduce inquiry and societal oriented science education</i> . Centre for Educational Policy Studies Journal, 4 (1), 31-49.	
9.	Belova, N., & Eilks, I. (2014). <i>Lernen über Werbung: Und wer hinterfragt den Inhalt?</i> . GW Unterricht, 33 (133), 18-25.	
10.	Eilks, I., (2014). <i>Action Research in science education: From a general justification to a specific model in practice</i> . In T. Stern, F. Rauch, A. Schuster, & A. Townsend (Eds.), <i>Action research, innovation and change</i> (pp. 156-176). London: Routledge.	
11.	Eilks, I., & Feierabend, T. (2013). <i>Developing the curriculum by Participatory Action Research – An interdisciplinary project on climate change</i> . In T. Plomp & N. Nieveen (Eds.), <i>Educational design research: Introduction and illustrative cases</i> (pp. 321-338). Enschede: SLO Netherlands Institute for Curriculum Development.	
12.	Eilks, I. & Markic, S., (2011). <i>Effects of a long-term Participatory Action Research project on science teachers' professional development</i> . Eurasia Journal of Mathematics, Science and Technology Education, 7(3), 149-160.	
13.	Eilks, I., Nielsen, J. A., & Hofstein, A. (2014). <i>Learning about the role of science in public debate as an essential component of scientific literacy</i> . In C. Bruquière, A. Tiberghien, P.	

Publications no.	PUBLICATION	LINK (when available)
	<i>Clément (Eds.), Topics and trends in current science education (pp. 85-100). Dordrecht: Springer.</i>	
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18.	<i>Marks, R., Stuckey, M., Belova, N., &amp; Eilks, I. (2014). The societal dimension in German science education – From tradition towards selected cases and recent developments. Eurasia Journal of Mathematics, Science and Technological Education, 10(4), 285-296.</i>	
19.	<i>Marks, R., Stuckey, M., &amp; Eilks, I. (2014). Die gesellschaftliche Dimension naturwissenschaftlich-technischer Sachfragen: Lieber im gesellschafts- oder naturwissenschaftlichen Unterricht? GW Unterricht, 134, 19-28.</i>	
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23.	<i>Stuckey, M., Mamlök-Naaman, R., Hofstein, A., &amp; Eilks, I. (2013). The meaning of 'relevance' in science education and its implications for the science curriculum. Studies in Science Education, 49, 1-34.</i>	
24.	<i>Stuckey, M., Lippel, M., &amp; Eilks, I. (2014). Teaching chemistry about 'Stevia' – A case of cooperative curriculum innovation within PROFILES in Germany. Centre for Educational Policy Studies Journal, 4 (1), 69-83.</i>	

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PROFILES Consortium (2012). Report (on the development of training/intervention materials/modules for teachers, based on evaluative findings across partners)  
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PROFILES Consortium (2013). Third Report to the stakeholders.  
PROFILES Consortium (2013). Teacher training model.  
PROFILES Consortium (2013). Revised teacher training model.  
PROFILES Consortium (2013). Reports on dissemination/networking.  
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PROFILES Consortium (2014). Reports about professional support.  
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PROFILES Consortium (2015). Final report on dissemination and network

**Websites:**

<http://www.profiles-project.eu/overview/index.html>  
<http://www.profiles-project.eu/de>  
<http://www.profiles-ut.com/>  
<http://ius.uni-klu.ac.at/misc/profiles/pages/home>  
<http://profiles.ped.muni.cz/>  
<http://www.uef.fi/profiles>  
<http://chemweb.ucc.ie/Pro2/PROFILES-ucc.htm>  
<http://www.profiles.univpm.it/>  
<http://www.profiles.lu.lv>  
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<http://www.profiles.uva.es/>  
<http://blogs.fhnw.ch/profiles/>  
<http://www.profiles-deu.net/>  
<https://www.itlearning.com/kau/profiles/about/>  
<http://www.icaseonline.net/profiles/>  
<http://su.diva-portal.org/smash/record.jsf?pid=diva2%3A647653&dswid=2016>

## **NETWORKING PRIMARY SCIENCE EDUCATORS AS A MEANS TO PROVIDE TRAINING AND PROFESSIONAL DEVELOPMENT IN INQUIRY BASED TEACHING - "PRI-SCI-NET"**

**Framework Programme: FP7**

**Action line/Part: 5.2 Strengthening potential, broadening horizons**

**Activity: 5.2.2 Young people and science**

**Area: 5.2.2.1. Supporting formal and informal science education in schools as well as through science centres and museums and other relevant means**

**Dimension: SCIENCE LITERACY**

**Tool: Coordination and support action**

**Project Call For Proposal: FP7-SCIENCE-IN-SOCIETY-2010-1**

**Status: Ongoing**

**Total cost: € 896 216.00**

**Total EU funding: € 689 054.00**

**Website: Website no longer available**

**Period: 01/09/2011 - 31/08/2014**

**Subjects: Coordination and Cooperation - Education and Training - Innovation and Technology Transfer**

**Project ID and Acronym: ID: 266647, ACRONYM: PRI-SCI-NET**

### **BACKGROUND AND CONTEXT OF THE PROJECT AND STRATEGIC NEEDS**

Science education is of crucial importance in Europe, not only as a vehicle for increasing the number of youngsters taking up scientific careers but also as a means for spreading a minimum of scientific literacy among all the citizenry. The central figure in this regard is that of the teacher, that often has no possibility of following in-service trainings or discussing and sharing ideas with other professionals, and ends up being a solitary figure transmitting a heavy scientific content load to pupils. Therefore, there is a need for letting teachers pursue a professional growth and help them implementing inquiry based teaching, by building learning opportunities for educators and engaging them within a Europe-wide network.

### **SPECIFIC PROJECT OBJECTIVES**

The PRI-SCI-NET project aimed at implementing a Europe-wide network for professionals and academics in the field of Primary Science Education, so as to provide training and professional support to teachers and help them exploit IBSE teaching approach in class. In particular, the specific goals of the network envisaged by PRI-SCI-NET are as follows:

- Promote exchange of ideas and professional growth among teachers;
- Identify good practices in ibse and spread their use in schools;
- Provide professionals with teaching resources in local languages that can be easily downloadable and ready to use;
- Organise training and courses for professionals; and
- Recognize achievements in ibse teaching through an institutional certification.

### **SaS/SiS Programme objectives/Activity Lines**

The action envisaged by the project Consortium tackled the need of supporting and coordinating actions on innovative methods in science education, as requested by the SiS-2010-1 Call, Activity 5.2.2. In particular, it is relevant for complementing school science curricula and focussing on teacher training activities and the promotion of European teachers' networks, as stated in SiS-2010-2.2.1-1. The capacity building effort the project's Consortium looked for, is also relevant with regard to the Innovation Union strategic need of promoting excellence in education and skills development. Innovation in primary science education participates to the process of increasing the number of young people from all backgrounds entering careers in science, research and technology.

### **SaS Action Plan**

The project's objectives are in line with action 16 (promote more attractive methods for science education in schools).

### **PROJECT RESULTS AND OUTCOMES**

#### **Project results according to the project objectives**

Main results and outcomes of the projects mirror the objectives designed by the Consortium at the outset. They can be summarized as follows:



- A **set of 45 activities designed as IBSE modules** have been tested, internally assessed and externally evaluated by a number of experts;
- A **web platform** where teachers and researchers can exchange ideas, modules and network has been launched and evaluated; the network was joined by approximately 250 individual users from European and non-European countries; within the network, newsletter issues and two issues of an online journal were distributed;
- The **arrangement of 4 sets of 13 national in service courses** (20 hours) on IBSE teaching approaches to Primary Science Educators (2019 teachers trained in total); the Consortium also organised **three international training courses** and convened **two international conferences**; in occasion of the second conference, a number of **young researchers was awarded the Certificate of Excellence** for IBSE;

Progress of each WP including deliverables and associated milestones were delayed and some management problems arose during the lifetime of the project, but they have been eventually solved. Regarding the platform, evaluation shows that users were partially satisfied by the website options, except for the lack of the chat function and an official language for communication. Anyway, the chat function was not seen as fruitful by the Consortium and the possibility of writing in the 27 national languages was a non-negotiable commitment in light of the European dimension of the platform. Furthermore, the expected two-way communication or discussion in the platform was not exploited by users, who generally registered to the site and visited it only to download modules.

#### **Main achievements according to Programme objectives**

The project took actions in order to promote a more widespread use of inquiry based science teaching techniques in primary schools as well as actions to bridge the gap between the science education research community, science teachers and local actors in order to facilitate the uptake of inquiry-based science teaching, as the SiS-2010-2.2.1-1 activity called for. The focus on the promotion of a European teachers' network was also implemented. Ibse modules managed to bring science issues into classrooms, in line with one of the expected results demanded by the Call.

#### **Main achievements according to SiS Dimensions**

The PRI-SCI-NET project was relevant for the SiS Science Literacy dimension, in particular it was in line with the actions the European Commission expected with regard to promoting IBSE and innovating science education in Europe. The project dealt mainly with formal scientific education, but with an innovative approach.

#### **DISSEMINATION AND ENGAGEMENT ACTIVITIES AIMED AT TRANSFERRING THE PROJECT RESULTS TO WIDER COMMUNITIES**

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The Consortium launched the web platform as the principal tool for international dissemination and networking. Information on the project was also included in partners' websites and other online platforms, in partners' and other associations' newsletters, and spread out through different mailing lists. The database of teachers interested in the activities of the project reached the number of 911 at the end of month 20. Other dissemination activities were implemented between the first and the 20<sup>th</sup> month, and they included:

- **Participation in conferences:** "London International Conference on Education (2012 and 2013)"; "Ireland International Conference on Education" (2013); "The European Conference on Education", Brighton (2013); "ESERA Conference in Nicosia (2013); EAPRIL 2013 Conference, Biel; Current Trend in Natural Science Teaching, Trnava (2012); "HSCI2013 10<sup>th</sup> International Conference on hand-on science, educating for science and through science"; among others;
- **Networking:** meetings with schools, local stakeholders and school associations have been arranged by partners; seminars, workshops and presentations of information on the project in class, in school meetings, science expo, science fairs and science days, were also implemented;
- **Media:** press release was distributed nationally; local newspapers, radio stations and online magazines included a moderate number of pieces of information on the project;
- **Publications:** a number of papers were included in conference proceedings and in national journals (see Publications table below); two issues of an online journal IPSE have been released.

Dissemination activities conducted after month 20 have not been reported. It seems however that the academic journals identified by the Consortium at the outset of the project were not exploited for reaching a strong scientific impact. Furthermore, it appears that Ministries of Education in all partners' countries have not been contacted, nor their effective engagement within the project activities have been reported.

#### **PROJECT IMPACTS**

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The impact of PRI-SCI-NET project was expected to be significant for the diffusion and further uptake of inquiry based science education approach. The Consortium included nine institutions with a high centrality (nine among the top 10%, of whom six among the top 5% and one among the 1%), and two academic institutions positioned in the Leiden Ranking (the University of Southampton ranking 257<sup>th</sup> and University of Minho 519<sup>th</sup>).

The STEPE project **actual impacts** can be classified into:

- **Scientific impact:** As reported in the last table of this document, a number of publications was accepted in conference proceedings and journals. It is to mention that, except for one, they address only a Slovakian or Portuguese speaking academic audience; a relevant legacy of the project is the online journal IPSE, which is expected to be edited and issued periodically after the end of the project;
- **Social media impacts:** There has been no relevant social impact in terms of social media listening buzz results.

## EU ADDED VALUE OF THE PROJECT

The project aimed at building a fruitful network of science teachers and science educators in Europe and therefore the European dimension of the project was felt as crucial by the Consortium.

## PARTICIPANTS AND RESEARCH TEAM

### Participants

Number of participants: 17

Number of countries involved: 14

	Type	Country	Role	Previous participations to FP
OFFICE OF THE PRIME MINISTER	PUB	MT	Coordinator	29
MUGLA UNIVERSITESI	HES	TR	Participant	1
UNIVERSITY OF LONDON	HES	GB	Participant	17
BUNDESMINISTERIUM FUR BILDUNG UND FRAUEN	PUB	AT	Participant	8
JOHANN WOLFGANG GOETHE UNIVERSITY FRANKFURT AM MAIN	HES	DE	Participant	114
UNIVERSITY OF SOUTHAMPTON	HES	GB	Participant	318
EU CORE CONSULTING S.R.L	PRC	IT	Participant	1
EXOR GROUP	PRC	MT	Participant	1
ASSOCIACAO HANDS-ON SCIENCE NETWORK	OTH	PT	Participant	1
KATHOLIEKE HOGESCHOOL VIVES ZUID	HES	BE	Participant	1
UNIVERZITA JANA EVANGELISTY PURKYNE V USTI NAD LABEM	HES	CZ	Participant	1
UNIVERSITY OF CYPRUS	HES	CY	Participant	105
PANEPISTIMIO KRITIS (UNIVERSITY OF CRETE)	HES	GR	Participant	51
TRNAVSKA UNIVERZITA V TRNAVE	HES	SK	Participant	4
UNIVERSITY OF MINHO	HES	PT	Participant	68
UNIVERSITE PARIS 8 VINCENNES SAINT-DENIS	HES	FR	Participant	6
UNIVERSITY OF JYVASKYLA	HES	FI	Participant	55

### Team Composition

Team Size: members\*

GENDER				
Female		Male		Unknown
53%		47%		0%
SENIORITY				
Average		Junior		Senior
16%		5%		79%
PhD				
No		Yes		
21%		79%		
BACKGROUND				
Applied Sciences	Health Sciences	Humanities & Social Sciences	Natural Sciences	Unknown
0%	8%	84%	5%	3%

\*The data are based on the analysis of the provided project's Description of Work.



## DELIVERABLES AND PUBLICATIONS

DELIVERABLE NO.	DELIVERABLE NAME	DUE DATE OF DELIVERY (month)	ACTUAL SUBMISSION DATE: (month)
D1.1	Minutes of the First Project meeting	3	15
D1.2	Protocol for Quality of Work and ethical issues	3	15
D1.3	Minutes of the Second Project meeting	9	15
D1.4	Minutes of the Third Project meeting	18	20
D1.5	Minutes of the Fourth Project meeting	24	29
D1.6	Minutes of the Fifth Project meeting	28	36
D2.7	Samples of 45 activities for primary science	7	33
D2.8	Evaluation report on impact of activities	16	33
D2.9	Finalized 45 activities in 15 languages	18	33
D2.10	Compiled evaluation report of external evaluators	18	33
D2.11	Guidelines for Ethics	7	34
D3.12	Internet platform for setting up the Pri_Sci_Network	8	22
D3.13	Primary Science Educators, teacher-trainers, and Researchers network	8	36
D3.14	Primary Teachers' network set up	8	36
D3.15	10 newsletters to be placed on teachers' network	36	36
D3.16	First online journal editions of the International Journal of Primary Science Education Research	27	23
D3.17	Second online journal editions of the International Journal of Primary Science Education Research	34	23
D4.18	1st National in-service courses per partner country (10 partners)	16	36
D4.19	First International Training course	18	22
D4.20	Proceedings of the first International conference	24	30
D4.21	Second International Training course	24	24
D4.22	Second national in-service courses	24	36
D4.23	Proceedings of the second International conference	35	24
D4.24	Third International Training course	28	31
D4.25	Third National in-service courses	30	36
D4.26	Fourth National in-service courses	34	36
D4.27	Evaluation report by the external evaluator	36	35
D5.27	Project website	6	15
D5.28	Project leaflet	8	22
D5.29	Project final document (describing project activities)	36	36
D5.30	Dissemination plan	9	30
D5.31	Updated dissemination plan	20	31

Publications no.	PUBLICATION	LINK (when available)
1.	DOULIK, P., ŠKODA, J., BRTNOVA-ČEPIČKOVA, I. PriSciNet – uplatnění metody heuristického vyučování v primárním přírodovědném vzdělávání. In REGULI, J. (Ed.) <i>Aktuálne trendy vo vyučovaní prírodných vied</i> . Trnava: Pedagogická fakulta Trnavskej univerzity v Trnave, 2012. s. 42 – 46. ISBN 978- 80-8082-541-6.	
2.	ŠKODA, J., DOULIK, P. Oborové didaktiky – znamení zrodu? In GAZDIKOVA, V., MAJHEROVA, J. (Ed.) <i>Odborová didaktika – interdisciplinárny dialóg</i> . Ružomberok: Verbum, 2012, s. 247-260. ISBN 978-80-8084-941-2.	
3.	KOTUĽAKOVA, K.: Learning Science process skills via CPD design module. 10 <sup>th</sup> International Conference on Hands-on Science. <i>Educating for Science and through Science</i> . HSCI, Košice 2013. ISBN 978-989-98032-2-0.	
4.	OROLINOVA, M.: Classification and measurement as a tool for inquiry-based approach in science education. In: HSCI2013. Košice : Univerzita Pavla Jozefa Šafarika vKošiciach, 2013. ISBN 978-989-98032-2-0. s. 106 - 110.	
5.	KOTUĽAKOVA, K.: Didactic design of microorganism life activities for ISCED 2 (Didaktické stvornenie problematiky životných prejavov	

Publications no.	PUBLICATION	LINK (when available)
	mikroorganizmov na stupni ISCED 2). In: <i>Presence and perspectives of chemistry didactics III (Súčasnosc' a perspektivy didaktiky chémie III)</i> . International conference. ISBN 978-80-5570-546-0.	
6.	OROLINOVA, M.: Prerequisites of the pre-service teachers of Trnava university for realization of their own research. (Predpoklady študentov učiteľstva akademických a výchovných predmetov TU pre realizáciu vlastného výskumu.) In: <i>Presence and perspectives of chemistry didactics III (Súčasnosc' a perspektivy didaktiky chémie III)</i> . International conference. ISBN 978-80-5570-546-0.	
7.	HELD, Ľ: Obstacles in deductive way of teaching chemistry (Uskalia deduktívnej vyučby chémie). In: <i>Presence and perspectives of chemistry didactics III (Súčasnosc' a perspektivy didaktiky chémie III)</i> . International conference. ISBN 978-80-5570-546-0.	

#### MAIN SOURCES

PRI-SCI-NET Consortium (2011). Description of Work. Annex I.  
 PRI-SCI-NET Consortium (2011). Minutes of the First Project meeting.  
 PRI-SCI-NET Consortium (2012). Minutes of the Second Project meeting.  
 PRI-SCI-NET Consortium (2013). Minutes of the Third Project meeting.  
 PRI-SCI-NET Consortium (2013). Minutes of the Fourth Project meeting.  
 PRI-SCI-NET Consortium (2013). Minutes of the Fifth Project meeting.  
 PRI-SCI-NET Consortium (2012). Evaluation report on impact of activities.  
 PRI-SCI-NET Consortium (2013). Finalized 45 activities in 15 languages.  
 PRI-SCI-NET Consortium (2013). Compiled evaluation report of external evaluators  
 PRI-SCI-NET Consortium (2013). 1st National in-service courses per partner country (10 partners)  
 PRI-SCI-NET Consortium (2013). First International Training course  
 PRI-SCI-NET Consortium (2013). Proceedings of the first International conference  
 PRI-SCI-NET Consortium (2013). Second International Training course  
 PRI-SCI-NET Consortium (2013). Second national in-service courses  
 PRI-SCI-NET Consortium (2014). Proceedings of the second International conference  
 PRI-SCI-NET Consortium (2014). Third International Training course  
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 PRI-SCI-NET Consortium (2014). Evaluation report by the external evaluator  
 PRI-SCI-NET Consortium (2014). Project final document (describing project activities)  
 PRI-SCI-NET Consortium (2012). Dissemination plan  
 PRI-SCI-NET Consortium (2013). Updated dissemination plan

## **BREAKING NEW GROUND IN THE SCIENCE EDUCATION REALM - "ENGINEER"**

**Framework Programme: FP7**

**Action line/Part: 5.2 Strengthening potential, broadening horizons**

**Activity: 5.2.2. Young people and science**

**Area: 5.2.2.1. Supporting formal and informal science education in schools as well as through science centres and museums and other relevant means**

**Dimension: SCIENCE LITERACY**

**Tool: Coordination and support action**

**Project Call For Proposal: FP7-SCIENCE-IN-SOCIETY-2011-1**

**Status: Closed**

**Total cost: € 3 151 188.2**

**Total EU funding: € 2 795 871**

**Website: [www.engineer-project.eu](http://www.engineer-project.eu)**

**Period: 01/10/2011 - 30/09/2014**

**Subjects: Coordination and Cooperation; Education and Training**

**Project ID and Acronym: ID: 288989, ACRONYM: ENGINEER**

### **BACKGROUND AND CONTEXT OF THE PROJECT AND STRATEGIC NEEDS**

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Recently, it has been often reported that young people's interest in science and mathematics is declining. One reason for this may be found in the teaching approaches, still prevailing, which emphasize knowledge over understanding, and thus presenting science as a matter far away from pupils' life and environment. Inquiry based science education is considered as a possible alternative approach, but European policies on education and educational practices are still far from establishing IBSE as the prevalent mode. Engineering is in itself an inquiry based activity, and at the same time it uses science to solve real problems, in real life. Following the example of the Boston Museum of Science, which designed educational modules based on the concept of "EiE Engineering is Elementary", exploitation of engineering for raising interest in science education among the youngsters is needed.

### **SPECIFIC PROJECT OBJECTIVES**

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The ENGINEER project aimed at **raising interest in science education by designing IBSE teaching modules regarding engineering** and exploiting them in schools, with students, training teachers, mobilizing laypeople and advocating effective educational policies. In particular, the Consortium established the following goals to achieve in the 36 months of life of the project:

- Adapt for European schools and design of teaching modules based on the EiE concept of Engineering Design Process;
- Train teachers to take up these modules in schools and to teach these modules to other teachers;
- Foster the cooperation between schools and museums;
- Implement a wide outreach programme among laypeople and an advocacy campaign addressing key policy makers in involved countries.

The objectives established by the project Consortium moved towards the development of more effective forms of pedagogy, the development of analytical skills, and techniques for stimulating intrinsic motivation for learning science. The methodology the project wanted to sustain and exploit has been proven successful in the US and its adaptation to European pupils according to cultural and gender identity is in line with the requirements of the Call. This is expected to contribute spreading good practices in science education and enhance a more effective professionalization of teachers and teacher trainers in Europe. In doing so, it would directly address the Innovation Union strategic need of promoting excellence in education and skills development.

### **SaS/SiS Programme objectives/Activity Lines**

The project's objectives indirectly address the need of increasing the number of young people from all backgrounds entering careers in science, research and technology, and of increasing awareness of the societal impact of science.

### **SaS Action Plan**

The project is relevant with regards to action 13 (Develop European-wide study courses on science and culture) and 16 (Promote more attractive methods for science education in schools).

### **PROJECT RESULTS AND OUTCOMES**

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#### **Project results according to the project objectives**

The main achievement of the project was the **implementation of teaching modules, designed as engineering challenges, connected to some topics in primary education science curricula**. Guidance and training for

teachers was also provided for the units and museums contributed by organizing workshops and supporting teachers activities, achieving a wide outreach of the project's activities. The adaptation, design and translation into 10 different languages of 10 engineering school units was implemented after analysing existing primary school science curricula and pedagogical methodologies undertaken in the interested countries; subsequently, a number of science topics was identified and linked to engineering fields and eventually teaching units in five lessons were formulated, based on the five-steps of the EIE's Engineering Design Process. These units were the starting point for a number of activities aiming at their full and effective implementation:

- **implementation of a pilot phase**, when four teachers training workshops and different museum activities were arranged by four museums, and school units were tested in 10 schools; the results were evaluated and exploited for the fine tuning of the programmes and a better implementation of the outreach phase;
- **Implementation of an outreach phase**, when museums organised teachers training workshops, trainings for teacher trainers, workshops for schools and engineering workshops for the general public (with a total participation of about 25,000 individuals); furthermore, 10,200 students undertook the teaching units in 2013 and 16,000 are said to have used the units in the last year of the project;
- **Evaluation of all the main activities** undertaken by the partners, which identified some weaknesses of the project but largely praised its success in all fields;
- **Wide dissemination among the general public** (see dissemination section below) and **advocacy campaign** aimed at reaching key national and international policy makers and at enhancing the inclusion of engineering or science and technology in school curricula.

Progress of each WP including deliverables and associated milestones showed some delay, due to the need of coordinating activities between museums and schools. Management of the project was highly positively evaluated by the partners; problems mainly regarded translation issues from some partners and the large amount of internal communication. Anyway the coordinator effectively managed to let the Consortium achieve its expected results.

#### **Main achievements according to Programme objectives**

The project's outcomes gave a positive contribution to the exploitation of innovative methods in science education, in particular by implementing teacher trainings on engineering teaching units (problem and inquiry based learning). This helps the promotion of the more widespread use of problem and inquiry based science teaching techniques in primary schools. The Consortium's activities were also relevant for the need of bridging the gap between the science education research community, science teachers and local actors in order to facilitate the uptake of inquiry-based science teaching. The engineering units complement school science curricula and teacher training activities were widely implemented, as the topic SiS-2011-2.2.1-1 of the call for proposals explicitly asked. The broad geographical coverage was also successfully achieved by the project, including 26 institutions from 12 different countries in its Consortium and implementing activities in 9 European and 1 associated country. Rather than, strengthening the links between education and the research community, as the expected impact for this topic stated, the project successfully experimented cooperation between schools and science museums.

#### **Main achievements according to SiS Dimensions**

The ENGINEER project was relevant for the SiS Science Literacy dimension, focusing in particular with the education action. The project implemented teacher trainings and engineering modules in schools and boosted interest in scientific matters among pupils. The project successfully experimented a combination of implementing new approaches in formal scientific education and exploiting informal education channels, such as activities in science museums.

#### **DISSEMINATION AND ENGAGEMENT ACTIVITIES AIMED AT TRANSFERRING THE PROJECT RESULTS TO WIDER COMMUNITIES**

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Outreach was a core dimension of the project and the Consortium envisaged an ambitious dissemination plan, which was successfully implemented and whose impact went in some cases beyond expectations. The website of the project launched at the outset and was updated during the period of life of the project with news, reports and downloadable material on teaching modules. Partners' websites and Facebook pages were also exploited. The dissemination activities were implemented both locally, nationally and internationally and included the following actions:

- **Presentations:** in conferences, such as "European Conference on Education Research" in Cadiz (2012); "ECSITE Annual Conference" in Toulouse (2012); "EUSEA Annual Conference" in Dublin (2012); "Lehrerkonferenz KGSD" Conference in Bonn (2013); "10<sup>th</sup> ESERA Conference" in Nicosia (2013); among others; presentations in fairs and events, such as the NOT (National Education Exhibition) Trade show, the Biennale of Education and Cité des science in Paris, Open School day in Bonn, etcetera; furthermore, several workshops, demonstrations and animations in museums and meetings with stakeholders were arranged;
- **Media and publications:** press release was arranged nationally; local and national newspapers reported about some activities undertaken by museums and schools; articles on ENGINEER also appeared on online magazines and journals, newsletters for teachers and school's websites and magazines; two papers published in conference proceedings and in two journals addressing stakeholders (see Publications table below);

- **Advocacy campaign:** throughout the project, over 500 advocacy actions took place, but the focus was restricted to museum directors, because of the impossibility to effectively affect national policies on the relevant issues.

## PROJECT IMPACTS

ENGINEER project was expected to **contribute to the EC goal of promoting inquiry based science education through Europe and Associate countries**. In particular, it was expected to promote the inclusion of engineering in primary school education, reaching a strong impact far beyond the activities directly undertaken by project's partners. Furthermore, the project was expected to tackle the weaknesses of European science education system, in particular those concerning the low interest in science careers among young people and low engagement of girls in science education, as the Innovation Union Communication stated. For this goal, national curricula have been carefully analysed and modules have been adapted to the European context with a particular focus on gender identity of learners, and this was expected to positively affect the implementation of the project's outreach activities in the interested countries. The Consortium was composed of 26 institutions and only six of them were within the top 10% in terms of network centrality (two of whom among the top 5%, and one among the top 1%). None of the academic institutions participating in the Consortium appears in the Leiden Ranking of top Universities.

The ENGINEER project **actual impacts** went beyond expectation for what concern the engagement of individuals and the number of students and teachers involved in the project. Furthermore, the advocacy campaign report highlighted that several museums showed interest towards the activities of the Consortium and several museums directors were involved and kept updated about project's actions and methodologies. Anyway, the goal of affecting national and European policy on science education by including engineering in primary school curricula was eventually abandoned in many of the countries involved because of difficulties in engaging key figures in policy makings and of the resistance encountered. Furthermore, the evaluation reported that the project focus on gender identity was not taken into great account by teachers involved in the project, maybe because the situation in their teaching experience did not demand for such a focus or maybe because they considered it unimportant. In addition to the above considerations, the actual impact of ENGINEER can be classified into:

- **Scientific impact:** As reported in the last table of this document, two papers in conference proceedings and two contributions in journals have been published. Partners have been invited to present the results of their activities in several conferences after the end of the project's lifetime, ensuring a wider impact on stakeholders and academia;
- **Institutional impact:** Despite the resistance in most of the countries involved in the project, in at least two countries the Ministry of Education showed some interest toward the activities of the project. In the Netherlands in 2014 it was decided that science and technology should become mandatory part of the science curriculum in primary schools by 2020; the Ministry of Education of Israel endorsed the project in different occasions, helping the Israeli partner to introduce ENGINEER modules in Israeli school curricula at the elementary and junior level, and to provide professional development in engineering to teacher training national programmes promoted by the Ministry;
- **Social media impacts:** There has been no relevant social impact in terms of social media listening buzz results.

## PATH-BREAKING ADVANCEMENTS

The ENGINEER project exploited an already existing inquiry based teaching approach, which uses engineering to raise interest on science and technology among young people, and it adapted it to the European context.

## EU ADDED VALUE OF THE PROJECT

The EU dimension of the project was crucial especially in the advocacy campaign. It is reasonable that the participation of the project in the EC funded programme multiplied the prestige of the Consortium and let it obtain the engagement of several educational institutions and science museums through Europe.

## PARTICIPANTS AND RESEARCH TEAM

### Participants

Number of participants: 26

Number of countries involved: 12

	Type	Country	Role	Previous participations to FP
BLOOMFIELD SCIENCE MUSEUM JERUSALEM (BSMJ)	HES	IL	Coordinator	14

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	Type	Country	Role	Previous participations to FP
LIGUE DE L' ENSEIGNEMENT FEDERATION DEPARTEMENTALE DE PARIS MOUVEMENT D'EDUCATION POPULAIRE FEDERATION DE PARIS DE LA LIGUE DE L'ENSEIGNEMENT ASSOCIATION ARTTIC	OTH	FR	Participant	1
ASSOCIATION EUROPEENNE DES EXPOSITIONS SCIENTIFIQUES, TECHNIQUES ET INDUSTRIELLES	OTH	FR	Participant	61
CENTER FOR FORMIDLING AF NATURVIDENSKAB OG MODERNE TEKNOLOGI FOND	OTH	BE	Participant	15
CITY OF BONN	OTH	DK	Participant	6
CONSERVATOIRE NATIONAL DES ARTS ET METIERS	PUB	DE	Participant	2
DEUTSCHES MUSEUM VON MEISTERWERKEN DER NATURWISSENSCHAFT UND TECHNIK	HES	FR	Participant	5
FONDAZIONE MUSEO NAZIONALE DELLA SCIENZA E DELLA TECNOLOGIA LEONARDO DA VINCI	REC	DE	Participant	5
GENTOFTE KOMMUNE	REC	IT	Participant	3
HAPARANDA KOMMUN	PUB	DK	Participant	1
21 ZAKLADNI SKOLA PLZEN, SLOVANSKA ALEJ 13, PRISPEVKOVA ORGANIZACE	PUB	SE	Participant	1
INTERNATIONAL COUNCIL OF ASSOCIATIONS FOR SCIENCE EDUCATION	PRC	DK	Participant	1
UNIVERSITY OF THE WEST OF ENGLAND, BRISTOL	OTH	CZ	Participant	1
MANCHESTER METROPOLITAN UNIVERSITY	OTH	GB	Participant	2
MINISTERO DELL'ISTRUZIONE, DELL'UNIVERSITA' E DELLA RICERCA	HES	GB	Participant	37
MODI'IN MACABIM REUT	HES	GB	Participant	23
MUSEUM OF SCIENCE	PUB	IT	Participant	20
OXFORDSHIRE COUNTY COUNCIL	HES	IL	Participant	1
STICHTING AMSTERDAMSE OECUMENISCHE SCHOLENGROEP 2	OTH	US	Participant	1
STICHTING NATIONAAL CENTRUM VOOR WETENSCHAP EN TECHNOLOGIE	PUB	GB	Participant	1
STIFTENSEN TEKNIKENS HUS	OTH	NL	Participant	1
TECHMANIA SCIENCE CENTER O.P.S.	OTH	NL	Participant	2
THE MORAITIS SCHOOL AE	OTH	SE	Participant	5
OXFORD TRUST COMPANY LIMITED BYGUARANTEE	OTH	CZ	Participant	9
IDRYMA EVGENIDOU	REC	GR	Participant	1
	REC	GR	Participant	2

**Team Composition**

Team Size: members\*

GENDER				
Female	Male		Unknown	
0%	0%		0%	
SENIORITY				
Average	Junior		Senior	
0%	0%		0%	
PhD				
No				Yes
0%				0%
BACKGROUND				
Applied Sciences	Health Sciences	Humanities & Social Sciences	Natural Sciences	Unknown
0%	0%	0%	0%	0%

\*The data are based on the analysis of the provided project's Description of Work.



## DELIVERABLES AND PUBLICATIONS

DELIVERABLE NO.	DELIVERABLE NAME	DUE DATE OF DELIVERY (month)	ACTUAL SUBMISSION DATE: (month)
D1.1	Internal website	2	
D1.2	Project management and quality assurance manual	3	
D1.3	Ethical approval	10	10
D2.1	Report on requirements analysis	3	3
D2.2	Development strategy plan	6	6
D2.3	Engineering challenge design units	12	25
D2.4	Educational programs for museums	12	25
D2.5	Material kits	12	25
D3.1	Teacher guides	12	24
D3.2	Professional development guides	12	24
D3.3	Plan for teachers workshops	12	24
D3.4	Plan for teacher trainer workshops	12	24
D4.1	Report on Pilot of teacher training	14	23
D4.2	Report on Pilot of engineering design challenges in schools	20	23
D4.3	Report on Pilot of programs in museums	20	23
D5.1	Report on outreach activities in museums	30	33
D5.2	Report on teacher training	28	33
D5.3	Report on training of teacher trainers	36	37
D5.4	Report on use of engineering units in schools	36	37
D6.1	Report on evaluation of adaptation/development process	19	21
D6.2	Evaluation questionnaires	9	10
D6.3	Report on evaluation of pilots	20	24
D6.4	Report on evaluation of outreach	35	37
D6.5	Report on evaluation of project's impact	36	37
D7.1	ENGINEER portal	3	7
D7.2	Dissemination plan	6	7
D7.3	Report on dissemination activities	18	25
D8.1	Advocacy plan	15	15
D8.2	Report on advocacy activities	36	37

Publications no.	PUBLICATION	LINK (when available)
	Vassilopoulos, A. (2012) "The Changing Role of Primary Education as Part of the European Life Long Learning Space: The case of the Engineer Project". Conference Proceedings of the 8th Samos International Conference in Education.	
2.	Maya Halevy, Emma Wadland (2012) "A new approach to science education". Attractions Management, Vol. 17, Q1.	
3.	Segoviano, Miriam (2012). "ENGINEER". Standbein – Spielbein, Hannover bis Japan – aktuelle Projekte, 12/2012, pages: 11-12	
4.	Anyfandi, G., Filippopoliti, A., Alexopoulos, I (2013) "ENGINEER Project: Breaking New Ground in The Science Education Realm". Science Education Research for Evidence-based Teaching and Coherence in Learning, University of Cyprus and the European Science Education Research Association. Conference Proceedings, pp. 145-157.	

## MAIN SOURCES

ENGINEER Consortium (2011). Description of Work. Annex I.  
ENGINEER Consortium (2012). Evaluation questionnaires  
ENGINEER Consortium (2012). Dissemination plan  
ENGINEER Consortium (2012). Advocacy plan  
ENGINEER Consortium (2013). Engineering Challenge Design units.  
ENGINEER Consortium (2013). Educational programs for museums.  
ENGINEER Consortium (2013). Material kits.  
ENGINEER Consortium (2013). Teacher guide.  
ENGINEER Consortium (2013). Professional development guides.  
ENGINEER Consortium (2013). Plan for teachers workshops.  
ENGINEER Consortium (2013). Plan for teacher trainer workshops

ENGINEER Consortium (2013). Report on Pilot of teacher training  
ENGINEER Consortium (2013). Report on Pilot of engineering design challenges in schools  
ENGINEER Consortium (2013). Report on Pilot of programs in museums  
ENGINEER Consortium (2013). Report on evaluation of adaptation/development process  
ENGINEER Consortium (2013). Report on evaluation of pilots  
ENGINEER Consortium (2013). Report on dissemination activities  
ENGINEER Consortium (2014). Report on outreach activities in museums  
ENGINEER Consortium (2014). Report on teacher training  
ENGINEER Consortium (2014). Report on training of teacher trainers  
ENGINEER Consortium (2014). Report on use of engineering units in schools  
ENGINEER Consortium (2014). Report on evaluation of outreach  
ENGINEER Consortium (2014). Report on evaluation of project's impact  
ENGINEER Consortium (2014). Report on advocacy activities  
ENGINEER Consortium (2014). Final Report Publishable Summary.

**Websites**

[www.engineer-project.eu](http://www.engineer-project.eu)

[www1.uwe.ac.uk/cahe/research/brille/researchthemes/childrenandyoungpeople/engineer.aspx](http://www1.uwe.ac.uk/cahe/research/brille/researchthemes/childrenandyoungpeople/engineer.aspx)

[www.researchgate.net/publication/260058603\\_ENGINEER\\_PROJECT\\_BREAKING\\_NEW\\_GROUND\\_IN\\_THE\\_SCIENCE\\_EDUCATION\\_REALM](http://www.researchgate.net/publication/260058603_ENGINEER_PROJECT_BREAKING_NEW_GROUND_IN_THE_SCIENCE_EDUCATION_REALM)



## **EUROPEAN UNION CONTEST FOR YOUNG SCIENTISTS 2012 - "EUCYS 2012"**

**Framework Programme: SIS**

**Action line/Part: 5.3 Science and society communicate**

**Activity: -**

**Area: 5.3.0.5 Promoting excellent trans-national research and science communication by the means of popular prizes**

**Dimension: SCIENCE LITERACY**

**Tool: Coordination and support action**

**Project Call For Proposal: FP7-Adhoc-2007-13**

**Status: closed**

**Total cost: 850.400**

**Total EU funding: 600.000**

**Website: <http://www.eucys2012.eu/>**

**Period: 10/01/2012- 09/01/2013**

**Subjects: Scientific Research; Social Aspects**

**Project ID and Acronym: ID: 316492, ACRONYM: EUCYS 2012**

### **BACKGROUND AND CONTEXT OF THE PROJECT AND STRATEGIC NEEDS**

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The European Union Contest for Young Scientists (EUCYS) was initiated in 1989 as an annual event. The contest was launched with the aim of encouraging young people to get involved in science and eventually embark on a career in research.

### **SPECIFIC PROJECT OBJECTIVES**

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The specific objectives set for the annual contest EUCYS 2012 were to:

- Develop and enhance a strong interest for natural and social sciences among young scientists;
- Stimulate innovative projects realised by young European students;
- Encouraging young people to pursue their interest in science and embrace scientific careers;
- Promote the ideals of cooperation and exchange of ideas among some of the most promising young European scientists;
- Show to the Slovak students the best projects elaborated by the most talented young European students.

The project's specific objectives were relevant for:

- **ERA:** the project contributed to the ERA priority of achieving "an open labour market for researchers" by making research and careers in science an attractive option for students involved in the contest;
- **Innovation Union:** the project contributed to create an open, effective and democratic European knowledge-based society, and a harmonious integration of scientific and technological endeavour by encouraging pan-European reflection and debate on science and technology and their relationship with the whole spectrum of society and culture.

### **SaS/SiS Programme objectives/Activity Lines**

The project was relevant for many of the identified programme objectives in the field. In fact, it addressed the ambiguous feelings expressed by citizens regarding knowledge of and the potential benefits from science and technology by supporting the development of innovative projects by promising young students. It also fought the perceived isolation of the world of science by allowing a wide range of students to directly engage in the contest and by fostering the communication of the contents to the wider public.

### **SaS Action Plan**

The project contributed to the SaS Plan objective of "Promoting scientific education and culture in Europe" and it was in line with the actions foreseen in the field of science education and careers (1-18) which aimed to get young boys and girls more interested in science through scientific events, attractive methods in science education, better communication.

### **PROJECT RESULTS AND OUTCOMES**

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#### **Main achievements according to Project objectives**

The 24<sup>th</sup> edition of the European Union Contest for Young Scientists was held in Bratislava (Slovakia), from 21<sup>st</sup> to 26<sup>th</sup> of September 2012. To obtain the set objectives, the project developed several initiatives (included the media strategy). The contest main results could be outlined as follows:

- 123 undergraduate finalists were selected from basic 49.998 contestants to EUCYS 2012 and 7.257 participants to National finals. Thus, the project enhanced a strong interest in science among young scientists.
- Promotion of the ideals of cooperation across countries as finalists came from 23 EU MS, 4 from Associated Countries (Israel, Norway, Switzerland and Turkey), 4 from Guest Countries (China, South Korea, New Zealand and USA) and 5 from other (European Schools, Belarus, Georgia, Russia and Ukraine);
- The involvement of very young students as the majority of contestants were born between 1993 and 1994;
- 83 innovative projects which ranked first in their respective countries covering a wide range of disciplines (Biology, Chemistry, Engineering, Technology, Mathematics, Physics, Computer sciences, Environment sciences, Medical sciences and Social sciences);
- Incentives for pursuing a career in science as 30 prizes were awarded to 27 projects presented by 44 contestants from 23 countries, for their high scientific content and originality. Scientific prizes consisting in one-week visits of some of the leading scientific installations in Europe (EPO, Institutions of EIROorum, Joint Research Centre, CERN and other) fostered the interest of young scientists for research.

#### **Main achievements according to Programme objectives**

The project developed several initiatives including a media strategy to **raise the public interest in science**. In fact, the main interest of EUCYS 2012 was to carry out an efficient and effective communication to an EU-wide public. To achieve a greater visibility, the project conducted several specialised parallel exhibitions (such as the expositions of the Slovak Academy of Sciences, the National Centre for the Promotion of Science and Technology in the Society) and two parallel scientific events: Intel Educator Academy organised together with Intel Corporation attracting over 150 participants including the National Organisers of EUCYS (23<sup>rd</sup> – 26<sup>th</sup> September 2012); Scientix Workshop organised together with European Schoolnet and involving overall 75 science, technique and mathematics teachers from Slovakia and other EU Member States (24<sup>th</sup> – 26<sup>th</sup> September 2012). All the activities were realised in one big exposition hall. As regards the achievements, around 60 schools applied for visits attracting near 6.000 students. The public outreach was thus high.

#### **Main achievements according to SIS Dimensions**

The project belonged to the science literacy dimension in FP7 SiS programme. The contest contributed to the effort made by the programme in attracting and stimulating the interest of young people in science careers. In line with the main trends for this thematic dimension, the project did not just aim at informing the public on science advances and research results but at engaging the public (especially undergraduates) in a challenging contest for an infield experience. Being an innovative and interactive method of science education, the project provided a stimulus for those young people who had already a talent in applying science.

#### **DISSEMINATION AND ENGAGEMENT ACTIVITIES AIMED AT TRANSFERRING THE PROJECT RESULTS TO WIDER COMMUNITIES**

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The main objective of the project dissemination was to deliver information about the Contest on the website, to use all good possibilities to publish documents through Central information portal for research, development and innovation of Slovak republic, through PR department of Ministry and Slovak Academy of Sciences and to produce Public Relations (PR) materials. A specific communication plan was elaborated to promote EUCYS 2012 at national and international level, taking profit of the participation of several different countries. WP6 comprised all the events, actions, activities or materials developed by the Host Organiser together with the European Commission, in order to disseminate and promote the 24<sup>th</sup> Edition of EUCYS. Looking at the dissemination activities carried out, a consistent effort was actually made to deliver information about the Contest through the website, communication with journalists and PR materials. The main dissemination means included:

- The project website ([www.eucys2012.eu](http://www.eucys2012.eu));
- 2.500 Posters for disseminating information about the Contest to schools and EUCYS National Organizers and for promotion at international level;
- EUCYS 2012 Contest book (1.000 units): in a printed version in the welcome package and a Digital version for online distribution;
- Banners (20 units): to promote the event on public transports. Outdoor big boards and city lights (15 units);
- Metal medals (350 units) with logo of EUCYS 2012 and European Commission;
- EUCYS 2012 Practical guide for participants published in 2012;
- The Conference Intel Educator Academy Conference held on 23<sup>rd</sup> September 2012;
- 2 Workshops and 2 Exhibitions at the Incheba Expo in Bratislava
- 27 press releases as well as 21 Articles published in the popular press;

- 43 videos for the Scientific community (higher education, Research), Civil society, Policy makers, Medias.

The Young Scientists of Slovakia organized several initiatives involving students and professionals to disseminate EUCYS 2012 at National level. As a result of the communication with the media, more than 220 items were published between January and December 2012. The size of the audience ranged from 15.000 to 50.000 people for press releases and 7.000 for posters. The popularity of the event, was reported as "extremely good"<sup>115</sup>, due to the extremely wide variety of materials produced.

## PROJECT IMPACTS

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The potential impact of the project was to increase young people's interest in science and to identify young talents. Looking at the only participant to the project, it was not in the top 10% most central institutions in the FP7 network. However, the actual impact of the project was positive. As stated in the project final report, the level of satisfaction of the participants was very high and all saw EUCYS 2012 as having been a great opportunity and a real springboard for their career in science. Throughout EUCYS 2012 special attention was paid to publish several examples of success stories from previous contests and the 2012 edition proved to be effective in stimulating future careers in science for the contestants. Some past contestants, not only the winners, were employed by cutting-edge companies or research facilities or universities.<sup>116</sup>

Other actual impact could be clustered as follows:

- **Social media impact** the project had a high impact on social media during the period of the contest according to the social media listening buzz results. Between 2012 and 2014, a total of 330 posts were counted primarily on Twitter (93%) and to a limited extent on other social networks with a popular hashtag being #eucys. After the end of the contest, the average conversation volume decreased. Between 2013 and 2015, a total of 13 posts resulted from social media listening with the highest volume being on Twitter (69%). As interesting aspect, almost all posts (99%) were published by women (see below).
- **Scientific impact** no citations and no publication were reported.
- **Institutional and organisational impact** there was no new institution established at the end of the project. Nevertheless, EUCYS 2012 stimulated strong and powerful networking among young European scientists.
- **Policy impact** policy makers were invited at project conferences and received many of the project publications. However, there is no evidence in project reports of direct impact on national policies or initiatives derived from the contest.

## PATH-BREAKING ADVANCEMENTS

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EUCYS 2012 contributed to the extension and deepening of cooperation with partner research institutions such as EIROforum, Joint Research Centre, EPO and many other partners on European and National level. The contest reached a total of 7.500 attendees (including jury members, national organisers, participants, visitors, journalists, school visits, students, teachers, parents, participants of the parallel Educational and Scientific programs).

## BEST PRACTICES

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None.

## EU ADDED VALUE OF THE PROJECT

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Over 28 years since 1989, the contest proved to be a powerful method to involve the young generations in science. Thanks to EUCYS, participants had the opportunity to collaborate and compete on relevant topics in science and innovation. Yet the number of participants has increased every year. The extension of its coverage is demonstrated by some figures: 24 cities have hosted the contest; 2.730 contestants have participated; 676 prizes have been awarded.

## PARTICIPANTS AND RESEARCH TEAM

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### Participants

Number of participants: 1

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115 EUCYS 2012. Final Report, pag. 54.

116 Some examples were provided on the contest website ([http://ec.europa.eu/research/eucys/index\\_en.cfm?pg=where\\_now](http://ec.europa.eu/research/eucys/index_en.cfm?pg=where_now) ).

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Number of countries involved: 1

	Type	Country	Role	Previous participations to FP	
MLADI SLOVENSKA	VEDCI	OTH	SK	Coordinator	1

### Team Composition -

Team Size: members\*

GENDER				
Female		Male		Unknown
SENIORITY				
Average		Junior		Senior
PhD				
No			Yes	
BACKGROUND				
Applied Sciences	Health Sciences	Humanities & Social Sciences	Natural Sciences	Unknown

\*The data are based on the analysis of the provided project's Description of Work.

### DELIVERABLES AND PUBLICATIONS

DELIVERABLE NO.	DELIVERABLE NAME	DUE DATE OF DELIVERY (month)	ACTUAL SUBMISSION DATE: (month)
D1.1	Design manual of EUCYS – logotype, design of the Website, posters, leaflets	3	
D1.2	Final Version of the EUCYS 2012 program of activities and goals	3	
D1.3	Final technical and financial report	12	
D1.4	Transfer of Prize amounts of the winners accounts	10	
D1.5	Management and organization of the realization work	12	
D2.1	Accommodation reservation sheets	3	
D2.2	Meal reservation sheet	3	
D3.1	Schedule of transports	1	
D3.2	Sending airlines tickets	3	
D4.1	Schedule of activities and visits	3	
D5.1	List of exhibition stands	4	
D5.2	List of equipment	4	
D5.3	Lecture programs for EPO and EIROforum	6	
D5.4	Lecture programme for the Scientific Lecture realized by National Scientists	6	
D6.1	Presentation folder	1	
D6.2	Press communication	12	
D7.1	Schedule of Contest with special attention to open exposition to public	2	
D7.2	List of participants	3	
D7.3	Well trained team of student helpers	5	
D8.1	Detailed description of the HO Prizes (Special Donated prizes)	3	
D8.2	Timetable of the Opening ceremony and the Closing ceremony	4	

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<i>DELIVERABLE NO.</i>	<i>DELIVERABLE NAME</i>	<i>DUE DATE OF DELIVERY (month)</i>	<i>ACTUAL SUBMISSION DATE: (month)</i>
<i>D8.3</i>	<i>Certificates and Diplomas</i>	<i>4</i>	

**MAIN SOURCES**

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MEMO (2015) "27 years of the European Union Contest for Young Scientists" available at: [http://ec.europa.eu/research/eucys/2015/pdf/eucys\\_2015\\_27\\_years\\_eucys.pdf](http://ec.europa.eu/research/eucys/2015/pdf/eucys_2015_27_years_eucys.pdf)  
EUCYS2012 (2009). Description of work.  
EUCYS2012 (2013). Final Report.

## Science Literacy: FP6 Related to SaS

## **OPENING CHANNELS OF COMMUNICATION BETWEEN THE ASSOCIATED CANDIDATE COUNTRIES AND THE EU IN ECOLOGICAL FARMING - "CHANNEL"**

**Framework Programme: FP6 related to SAS**  
**Dimension: SCIENCE LITERACY**  
**Tool: Specific Support Actions**  
**Project Call For Proposal: FP6-2003-ACC-SSA-FOOD**  
**Status: -**  
**Total cost: 392.850**  
**Total EU funding: 392.850**  
**Website: - (the link <http://www.channel.uni-corvinus.hu> doesn't work anymore)**  
**Period: 15/11/2004-14/06/2006**  
**Subjects: -**  
**Project ID and Acronym: ID: 3375, ACRONYM: CHANNEL**

### **BACKGROUND AND CONTEXT OF THE PROJECT AND STRATEGIC NEEDS**

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Associated Candidate Countries (ACC) showed huge differences in the stages of development of organic agriculture. Different historical and cultural backgrounds, legislative frameworks and economic conditions could hamper the spreading of harmonised and equalised environmentally friendly agricultural processes and legislation. The strategic proposal of the CHANNEL project was to facilitate the harmonisation of processes, legislation and economic framework of organic farming through the creation of open communication channels between countries.

### **SPECIFIC PROJECT OBJECTIVES**

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The CHANNEL project specific objectives are outlined as follows:

- To assess and analyse the development stages achieved by participating countries in organic agriculture;
- To establish communication channels at different levels for harmonization and equalization in organic agriculture;
- To create communication channels between the new accession countries and the potential candidate countries and between these countries and the European Union;
- To monitor the current situation of organic farming in the participating countries;
- To create links between the stakeholders of the participating countries, to support the harmonisation process in the future;
- To disseminate common knowledge and create an interactive central data bank with all the information collected.

The project's specific objectives were relevant for:

- **ERA:** Establishing connections between research, business and education (the "knowledge triangle") was key for knowledge transfer within a unified European Research Area. By creating links between different stakeholders from participating countries, the project contributed to the knowledge sharing in organic farming. CHANNEL activities could support progress and policy coordination among the participating countries and impact positively on research and innovation in the field thus, contributing to the ERA objective "optimal circulation, access to and transfer of scientific knowledge" (point 2.5);
- **Innovation Union:** by gathering information and data on the different levels of development of organic agriculture in all the participating countries, the project contributed to the IU intermediate objective "strengthening the knowledge base and reducing fragmentation" (point 2). Furthermore, by starting the harmonisation of national legal and economic frameworks in organic farming, the project contributed to smart and ambitious regulation which was an IU driver to "Creating a single innovation market" (point 3.2).

### **SaS/SiS Programme objectives/Activity Lines**

The project was not funded under the SaS programme but it was in line with the programme efforts in communication. In detail, CHANNEL contributed to the programme objective "to create conditions under which policy decisions in multi-level governance are more effective in meeting society's needs" under scientific advice, governance (Activity line 4.3.1.). In fact, by assessing the level of development of organic farming in participating countries, the project supported the harmonisation of national policies in the field. The links between different stakeholders would have brought together the knowledge and expertise gained in the field closer to the society. As a consequence, the project would have achieved an inclusive participation taking into account the aspirations and concerns of civil society which was also a priority in SaS.

### SaS Action Plan

The SaS Action Plan pursued the creation of channels for feeding advice from experts and from civil society into science-based policy development as instruments for a better use of expertise. The Actions included in the Plan (37-39) were meant to attain more robust policies built upon the societal needs. Through communication channels, discussion forum and events, the project aimed at establishing links that could facilitate the exchange of expertise and information about ecological farming, hence favouring the adoption of harmonised environmentally friendly agricultural processes and legislation across the Europe. Thus, CHANNEL was also in line with some relevant topics of the SaS Action Plan.

## PROJECT RESULTS AND OUTCOMES

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### Main achievements according to Project objectives

Considering the objectives set, the main achievements of the CHANNEL project were:

- **Data collection** about organic farming: data were collected through questionnaires in 6 thematic groups sent to experts, scientists and authorities in all participating countries and a general questionnaire to obtain an overview of the field. The information gathered was integrated into "Country Profiles" and summarised by Working Group Leaders in a booklet;
- the creation of a **complex database**, collecting supervised and consolidated information on organic farming development stages in the 16 participating countries and covering 6 thematic units;<sup>117</sup>
- **the establishment of communication channels** with Croatia and Turkey for data collection. Decision makers, researchers and representatives of ministry from Malta, Czech Republic, Lithuania and Hungary were invited by partners in all four general CHANNEL meetings;
- the creation of a project **website** ([www.channel.uni-corvinus.hu](http://www.channel.uni-corvinus.hu)) which served as a discussion forum and facilitated exchanges of information. It also contained the results of the questionnaires, to be used by national representatives of the various countries;
- the dissemination of the project contents in many **forums**, conferences and meetings which fostered links among stakeholders;
- a set of **recommendations** announced at the project's final conference in 2006 to a wide audience across Europe.

On the whole, the active involvement of national representatives, who sent out questionnaires to target groups (e.g. governments, decision makers, farmers' associations, researchers and other stakeholders) and were kept responsible for the validity and correctness of the data collected, was essential to ensure the achievement of project results.

As regards the obstacles, the high number of participants caused some **communication problems** and delays in reporting due to different technical backgrounds. However, such problems were promptly solved by the project team. Furthermore, narrow financial resources and **lack of commitment** from two partners slowed down the data collection process<sup>118</sup> for specific Country Profiles.

### Main achievements according to Programme objectives

The expected result in SaS was the achievement of a science based policymaking which included the active participation of citizens in policy development. Some alignment could be found in the case of CHANNEL. The project set up a website with a discussion forum which allowed the participants to communicate easily with one another. Furthermore, the data collection process was based on questionnaires for workgroups in the different thematic fields which targeted different stakeholders groups to gather their inputs and perspectives. The final dissemination conference provided a unique opportunity for the participants to meet and discuss the state-of-art, the research and educational programmes in ecological farming, also with regard to the involvement of society in the design of future developments on the field.

### Main achievements according to SaS Dimensions

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<sup>117</sup> The 6 thematic units were: plant protection, organic seed and propagation material, animal husbandry, agro-technology, weed management and soil fertility.



CHANNEL could be linked to the SaS science literacy dimension and efforts to establish a two-way communication. In line with the main trends in the dimension, the project applied a dialogic model of communication by allowing the sharing of results and data among stakeholders and other interested parties, including students. Furthermore, communication activities were expected to have wider impacts also on national policies and forms of organisation in the field. In fact, the final conference provided the opportunity to make information and knowledge of the project accessible also to Eastern European participants who could not afford to participate to a similar event in Western Europe.

In addition, the project contributed to the SaS dimension open access, by making the project results and the database on organic farming available to all interested users (experts, scientists or students). Such inclusive approach was in line with the EC efforts to disseminate knowledge to the wider public for a future uptake and development in the field.

### **DISSEMINATION AND ENGAGEMENT ACTIVITIES AIMED AT TRANSFERRING THE PROJECT RESULTS TO WIDER COMMUNITIES**

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The knowledge gathered by the CHANNEL project was disseminated through different dissemination means. Namely:

- The project website containing a discussion forum, database results and summaries of CHANNEL meetings reaching 1.303.461 visitors already in 2006;
- Presentations in several conferences/forums in Europe in 2005-2006: Organic Conference Newcastle in (2005), TUBITAK Conference (2005), EWRS<sup>119</sup> Conference (2005), IFOAM<sup>120</sup> Conference (2005), International conference towards FP7 (2005), Plant protection Forum (2006), Weed Conference (2006);
- A flyer printed to communicate CHANNEL and its final conference for all interested parties;
- a press release about the CHANNEL project and the final conference in March 2006; 10.930 abonnements; 3.178 journalists;
- the final CHANNEL disseminating conference held in Budapest 5-7 April 2006. The audience included the heads of leading research programmes, researchers, experts, decision makers and also interested parties (e.g. Students, farmers, enterprises) from the EU Member States and from the AAC .;
- 100 copies of the Booklet on participation of the Lithuanian Institute of Agriculture in CHANNEL published and delivered to national and regional authority bodies, to the agricultural advisory service and to individual farmers interested in organic farming.

Communication to the public was deemed "significantly effective" in the SaS reporting questionnaire and many additional channels were used for dissemination<sup>121</sup> compared to the initial design. The project results were made available to all the participants and to all those who were involved and interested in organic farming, in order to attain the widest possible dissemination and uptake in the future. As for the degree of achievements, the project dissemination activities allowed participants and interested parties to establish personal contacts, which were deemed one of the most important results of CHANNEL project.<sup>122</sup>

### **PROJECT IMPACTS**

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The potential impacts of the Channel project include the fact the EU and the participating countries obtain a clear idea on the situation of organic farming in other European countries, that the level of knowledge is harmonised, and that stakeholders and all those interested in the issue are familiarised with organic agriculture in its widest possible scope.

This positive impact was probably increased by the fact that, among the 25 organisations involved in the project, 10 were in the top 5% of the most central organisations in the overall FP network and 4 of them even reached the top 1% (*betweenness centrality*). However, with regard to the scientific attractiveness, only the Semmelweis University appeared in the Leiden ranking for the quality of the publications with a low position.<sup>123</sup>

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<sup>119</sup> European Weed Research Society (EWRS).

<sup>120</sup> Agriculture Movements (IFOAM) Unites the Organic World in Adelaide, Australia.

<sup>121</sup> It is worth mentioning: homepages of the project partners, CORDIS homepage, FiBL and ISOFAR homepages, Czech project websites ([http://www.enviweb.cz/?secpart=puda\\_archiv\\_53860](http://www.enviweb.cz/?secpart=puda_archiv_53860); [http://www.budnews.cz/clanek.php?id\\_clanku=11590](http://www.budnews.cz/clanek.php?id_clanku=11590)).

<sup>122</sup> CHANNEL Publishable Final Activity Report (2006), page 5.

The **actual impacts** could be classified into:

- **Scientific impact:** three articles published and a booklet were published;
- **Social media impact:** no available social media listening buzz results. This may be in part due to the technology and social media development at the time of the project implementation;
- **Institutional and organisational impact** the project opened a set of communication channels which could serve as the basis for durable links among all the stakeholders interested in organic agriculture. The project established strong ties with the Danish organisation "Sustaining Animal Health and Food Safety in Organic Farming" (SAFO). As specified in the Publishable final activity report, there were 'excellent relations' with the SAFO programme and the consortium also took part to the Joined Organic Congress held in June 2006;
- **Policy impacts:** as underlined in its Final Activity Report, the project helped the Eastern European and Western European partners to interact and share information about organic farming issues as well as about the leading EU projects. Furthermore, Turkey and Croatia were attracted as potential partners of the project. However, no concrete information on the extent of policy impacts is available.

### PATH-BREAKING ADVANCEMENTS

The CHANNEL project started a **bottom-up harmonisation process** based on channels created between a wide range of stakeholders, from policy makers and researchers to interested parties. The value of the project lied in the inclusive approach applied in carrying out the project activities and in the differentiation of the stakeholders. The active involvement of national representatives in data collection, the personal contacts established among experts, scientist or students in the final conference and the presentation of the project in several forums in Europe, supported the establishment of channels as unique tools in the harmonization process beyond national specificities.

### EU ADDED VALUE OF THE PROJECT

Before the project started, there was a general agreement on the benefits offered by organic farming to society and the environment, but laws and organisational forms governing that field were different across Europe. Thanks to the project, participating countries were enabled to exchange knowledge and best practices in organic farming, hence improving their level of development. They also had the opportunity to establish communication links with stakeholders at cross-country level.

### PARTICIPANTS AND RESEARCH TEAM

#### Participants

Number of participants: 26

Number of countries involved: 15

	Type	Country	Role	Previous participations to FP
BUDAPESTI CORVINUS EGYETEM	HES	HU	Coordinator	1
LITHUANIAN INSTITUTE OF AGRICULTURE	REC	LT	Participant	1
AGRICULTURAL RESEARCH INSTITUTE	REC	CY	Participant	9
AGRICULTURAL UNIVERSITY OF WROCLAW	HES	PL	Participant	2
BIOKONTROLL HUNGARIA KHT	OTH	HU	Participant	1
BUNDESFORSCHUNGSANSTALT FUR LANDWIRTSCHAFT	REC	DE	Participant	7
ISTITUTO AGRONOMICO MEDITERRANEO DI BARI	REC	IT	Participant	1
CENTRAL SERVICE FOR PLANT PROTECTION AND SOIL CONSERVATION	OTH	HU	Participant	2
EESTI MAHERPOLLUMAJANDUSE SIHTASUTUS	OTH	EE	Participant	1
LEIBNIZ INSTITUT	REC	DE	Participant	7
INSTITUTE FOR SMALL ANIMAL RESEARCH	REC	HU	Participant	1
INSTITUTE OF AGRICULTURAL RESEARCH AND DEVELOPMENT FUNDULEA	REC	RO	Participant	1
UNIVERSITY OF SOUTH BOHEMIA	HES	CZ	Participant	2

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	Type	Country	Role	Previous participations to FP
UNIVERSITY OF VETERINARY MEDECINE	HES	SK	Participant	3
LUDWIG BOLTZMANN GESELLSCHAFT OSTERREICHISCHE VEREINIGUNG ZUR FORDERUNG DER WISSENSCHAFTLICHEN FORSCHUNG	REC	AT	Participant	1
MAGYAR KISALLATNEMESTITOK GENMEGORZO EGYESUELETE	OTH	HU	Participant	1
NATIONAL INSTITUTE FOR AGRICULTURAL QUALITY CONTROL	OTH	HU	Participant	1
NIKOLA POUCHKAROV INSTITUTE OF SOIL SCIENCE	REC	BG	Participant	3
PRIEKULI PLANT BREEDING STATION	REC	LV	Participant	1
RESEARCH INSTITUTE FOR ANIMAL BREEDING AND NUTRITION	REC	HU	Participant	2
UNIVERSITY OF LECCE	HES	IT	Participant	4
THE SLOVAK UNIVERSITY OF AGRICULTURE IN NITRA	HES	SK	Participant	1
THE GENISTA FOUNDATION	OTH	MT	Participant	1
UNIVERSITAT KASSEL	HES	DE	Participant	25
UNIVERSITY OF MARIBOR	HES	SI	Participant	2
INSTITUTE OF BOTANY	REC	LT	Participant	2

#### DELIVERABLES AND PUBLICATIONS

DELIVERABLE NO.	DELIVERABLE NAME	DUE DATE OF DELIVERY (month)	ACTUAL SUBMISSION DATE: (month)
1.	Working methodology manual	1	1
2.	Project website	2	2
3	Established data bank frame	3	3
4.	Working group thematic report about general questionnaires	7	7
5.	Project progress report to the Commission	13	14
6.	Working Group thematic reports	15	15
7.	Working Groups Thematic reports and strategic papers for the final conference	18	18
8.	Finalised database, general part	18	18
9.	Final project report, Thematic reports and Proceedings of the final conference	18	18
10.	Dissemination of project results at Joint Organic Congress in Odense	19	19

#### MAIN SOURCES

CHANNEL Brochure: [http://www.coreorganic.org/library/EU\\_folder/channel.pdf](http://www.coreorganic.org/library/EU_folder/channel.pdf)  
 CHANNEL Final report summary: [http://cordis.europa.eu/result/rcn/47311\\_en.html](http://cordis.europa.eu/result/rcn/47311_en.html)  
 CHANNEL Publishable final activity report (2006).  
 CHANNEL Result in Brief: [http://cordis.europa.eu/result/rcn/87436\\_en.html](http://cordis.europa.eu/result/rcn/87436_en.html)  
 CHANNEL Science and Society Reporting Questionnaire (2006).

## **ADVANCED VACCINOLOGY TRAINING FOR SCIENTISTS FROM ACC AND DEVELOPING COUNTRIES: FROM GENOMICS TO VACCINATION STRATEGIES FOR COMMUNICABLE DISEASES LINKED TO POVERTY "ADVAC-EC"**

**Framework Programme:** FP6 related to SAS  
**Dimension:** SCIENCE LITERACY  
**Tool:** -  
**Project Call For Proposal:** FP6-2003-LIFESCIHEALTH-I  
**Status:** -  
**Total cost:** 994.800  
**Total EU funding:** 390.000  
**Website:** <http://www.advac.org/>  
**Period:** 01/01/2005- 31/12/2007  
**Subjects:** -  
**Project ID and Acronym:** ID: 5106, ACRONYM: ADVAC-EC

### **BACKGROUND AND CONTEXT OF THE PROJECT AND STRATEGIC NEEDS**

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Informed decision and policy making processes are essential in all health-related fields, including vaccinology. It started with genomic research and trials but it also involved special societal issues depending on geography. At the time of the project, there was a need to inform people involved in upstream vaccine research or clinical trials about economic, epidemiological and logistic factors influencing the real-life use of new vaccines. In addition, it was deemed essential to ensure that people responsible for the design of vaccination strategies had basic knowledge of vaccinology and criteria for using vaccines in public health practice. Vaccinology was only starting to be considered as a discipline and thus better knowledge of key issues was required.

### **SPECIFIC PROJECT OBJECTIVES**

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ADVAC-EC aimed to organise a course training in order to create a critical mass of people, in Europe and in developing countries, with a sufficiently broad knowledge of vaccinology to influence the decision-making processes related to new vaccines and new vaccination strategies. The project specific objective was to provide a broad view of the different facets of vaccinology to people concerned at different levels in order to become key players in the decision-making processes.

More specifically, the courses covered the following issues: pre-clinical vaccine research (go- no go decisions, safety assessment, immunological considerations); design and monitoring of clinical trials; vaccine safety issues; selection of new and appropriate vaccination strategies; communication.

The project's specific objectives were relevant for:

- **ERA:** networking scientists for stimulating the creation of critical mass of researchers in consortia was key to identify priorities in research agenda and to jointly address grand challenges. By providing opportunities for discussion and cross-country networking among scientists, the project contributed to the ERA priority "Optimal transnational co-operation and competition" (point 2.2.). In fact, ADVAC course participants were expected to establish contacts so as to select research priorities and to choose new vaccination approaches in their respective countries;
- **Innovation Union:** "Strengthening the knowledge base" (i.e. Knowledge) was a key objective of the IU. The project aimed at expanding the knowledge basis in vaccinology in ACC, DC, and Russia/NIS and Western Balkan countries to help support them in decision-making related to all aspects of vaccine clinical trials and develop appropriate new vaccination strategies. The improvement of the knowledge basis would have stimulated innovation and competitiveness across Europe.

### **SaS/SiS Programme objectives/Activity Lines**

The project was not funded under the SaS programme but it was relevant to attain the programme objective "to create conditions under which policy decisions in multi-level governance are more effective in meeting society's needs" under scientific advice, governance and reference systems (Activity Line 4.3.1). By improving the knowledge of vaccinology the project aimed at bringing policy-making processes closer to societal needs and perception of vaccine values. The establishment of international networks could also contribute to set an effective multi-level governance in the field.

### **SaS Action Plan**

The project was relevant for the SaS Action Plan objective to involve civil society in order to influence the decision-making process (Actions 22-23). In fact, the ADVAC course supported an informed decision-making processes in the field of vaccinology by including economic, epidemiological and societal considerations related to the field of vaccinology.

## **PROJECT RESULTS AND OUTCOMES**

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### **Main achievements according to Project objectives**

The main achievement of the project was the organisation of the ADVAC Course from May 19<sup>th</sup> to May 30<sup>th</sup>, 2008. The 2-week Advanced Course of Vaccinology was held at the Veyrier-du-Lac Conference Centre and jointly organised by the Foundation Mérieux and University of Geneva. The course comprised top-level scientists lecturers, extensive interactive discussion time and small working group sessions to carry out practical exercises on a variety of topics<sup>124</sup>. The course was targeted at young professionals already or soon to be involved in vaccine-related research and strategic issues: 65 participants were selected by the Scientific Committee and came from 29 Developing Countries, Associated Candidate Countries and East European Countries.

According to the independent evaluation on the project effectiveness, the course was successful and its objectives were fully met.

### **Main achievements according to Programme objectives**

The expected result in SaS was a science-based policymaking which included the active participation of citizens in policy development. Above all, the project made a particular effort to take into consideration the ethical, social, regulatory and wider cultural aspects of vaccine-related research. The project also provided a broad view of the different facets of vaccinology to people concerned at different level to make them active players in policy making. By establishing a transdisciplinary collaboration between all vaccination stakeholders, the ADVAC project ensured the consideration of ethical and societal concerns in practice.

Promoting international co-operation also represented an important dimension throughout the FP6. Accordingly, the project selected participants from different Associated Candidate Countries (ACC) and Developing Countries establishing links for improving the European research policy as well as their role in decision-making processes within their Countries. Besides, the course was also co-sponsored by US-NIH, CDC, WHO, IARC, ESPID, University of Geneva, Johns Hopkins SPH and main vaccine producers, which seconded lecturers.

### **Main achievements according to SaS Dimensions**

The ADVAC project was related to the science literacy SaS dimension and mainly invested in education and training. The project comprised training activities to promote competences of participants especially from candidate countries. In line with a mature concept of the dimension, it adopted a dialogue model where participants with different backgrounds were involved in interactive discussion sessions to establish collaboration networks aimed at influencing decision-making in vaccinology. Communication with media on vaccine-related issues was also key in the project.

As pioneer in the FP6, the ADVAC project could be also related to the ethical SaS dimension. It addressed ethical issues in the training area related to the design and monitoring of clinical trials in Developing Countries.<sup>125</sup> In fact, participants to the training were expected to learn how to deal with specific ethical aspects regarding vaccine trials and vaccine delivery systems. However, the impact evaluation underlined that, according to the participants,<sup>126</sup> the project had only marginally contributed to the integration of ethical issues in the practice of vaccinology. Finally, the project contributed to the open access SaS dimension since the presentations used during the course were adapted to a suitable electronic format in the website and made fully accessible.

## **DISSEMINATION AND ENGAGEMENT ACTIVITIES AIMED AT TRANSFERRING THE PROJECT RESULTS TO WIDER COMMUNITIES**

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The dissemination strategy of the project aimed to advocate the course and to raise public participation and awareness. The main dissemination means used were:

- advertisements of the course in international scientific journals;
- ADVAC Reference documents and course manual;
- ADVAC leaflet distribution at international meetings by the scientific committee, faculty members and former participants;
- ADVAC databases for email;
- announcement on various websites (e.g. Foundation Mérieux, ADVAC.org).

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<sup>125</sup> Module 6- Ethical issues- of the course curriculum.

<sup>126</sup> Impact evaluation summary report (2009): page 7.

As for the degree of achievement, the course participants were allowed to inform the media and the public of vaccinology related issues.

## PROJECT IMPACTS

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As for the **potential impacts** of the training course, participants were expected to become able to define research priorities and to choose new vaccination approaches taking into account all important aspects of vaccinology, including economic and epidemiological considerations. The extended networks established among participating scientists and the increased awareness among R&D decision-makers of determinants of the use of vaccines, were supposed to have an indirect positive impact on the economic development at EU level. Looking at the organisers of the course, the University of Geneva was in the top 1% of the most central Institutions in the overall FP (*betweenness centrality*) and it was also in a top level position in the Leiden Ranking for the quality of publications (61). Thanks to its centrality and scientific relevance, the potential impacts of the project can be estimated to be high.

Looking at the activities performed, the project had partial **positive impacts** on young professionals involved in vaccine-related research and decision-making. As described in the final report, they were able to: select relevant vaccine research areas to meet the identified challenges; understand the requirements for vaccination strategies; use rational criteria for introducing new vaccines; understand the economic conditions including cost-effectiveness analysis of new vaccines; start appropriate crisis management actions in case of vaccine adverse effects including effective communication skills.

The impact of the training at **local and national** levels was assessed by gathering inputs from participants one year after the training, as part of the project evaluation.<sup>127</sup> An **independent enquiry** was carried out among all the participants to the ADVAC courses<sup>128</sup> to assess the extent of their impact. The evaluation results, together with other sources, conveyed the following **actual impacts**:

- **Scientific impact** there were no publications related to the project.
- **Social media impact** there were no relevant results according to the Social media listening collection. This may be in part due to the technology and social media development at the time of the project implementation;
- **Institutional and organisational impact** the training programme encouraged European scientists to establish contacts with other scientists from developing countries, thus supporting North-South collaborations. In addition, it favoured the development of international **vaccinology networks** that could better inform and ease the implementation of EC strategies in the field. Participants to the ADVAC course provided a positive final assessment in relation to the impact on their own Institution and on the establishment of exchanges with a wider international network.<sup>129</sup>
- **Policy impact** the project provided benefits to decision-makers from Developing Countries (with a priority for Sub-Saharan Africa), Associated Candidate Countries (ACC), Russia, other NIS, and Western Balkan. The training course was not limited to targeted countries but it was open to participants and industry representatives from Europe, USA, Oceania. The training programme had particularly high impacts on participants from ACC and on their institutions due to scarcity of previous contacts. As a proxy of the interest raised by the course, the number of participants from Developing Countries had globally increased between 2000 and 2008.<sup>130</sup> The majority of participants (71%) admitted that the ADVAC course had impacts on the countries where they were practicing as it had allowed them to participate in policy making and in regulatory issues.<sup>131</sup> In fact, following their participation to the course, some vaccines were introduced in developing countries.

Overall, the results from the final evaluation showed that the ADVAC courses had positive impacts on the profession, Institution and country of participants since it elevated “the collective fund of knowledge” and supported the “personal evolution” of scientists involved.<sup>132</sup>

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<sup>127</sup> The evaluation was mentioned in the DoW (WP1-8 Follow up activities).

<sup>128</sup> Results of the 2008 final evaluation covered 9 past ADVAC courses since 2000. Yet, the first ADVAC course was held in 1999 by the same organisations.

<sup>129</sup>Please refer to Q12 of the questionnaires (impact evaluation summary report, page 8).

<sup>130</sup> Impact evaluation summary report (2009)

<sup>131</sup> Ibid.

<sup>132</sup> Ibid.

## PATH-BREAKING ADVANCEMENTS

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There was no European forum pooling together immunologists, epidemiologists, paediatricians, public health experts or biotechnologists interested in the vaccinology field. The ADVAC courses were, in fact, also a momentum to involve young professionals, top-level scientists and decision-makers in an interactive discussion as the basis for building international vaccinology collaboration networks.

## EU ADDED VALUE OF THE PROJECT

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As underlined in the Description of Work, the training programme aimed to support European scientists involved in research on vaccination strategies and part of national vaccination advisory boards in acquiring a key role in decision-making processes. As for the EU dimension of the project, the training provided a broad overview of all relevant factors and conditions influencing the introduction of new vaccines into vaccination programmes, including economic and epidemiological considerations. Such training could 'hardly be provided at national level'<sup>133</sup>. Especially, scientists from Developing Countries, Associated Candidate Countries (ACC), Russia, Newly Independent States (NIS) and Western Balkan benefited from fellowships for travel, housing and registration thanks to the EC funding.

## PARTICIPANTS AND RESEARCH TEAM

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### Participants

Number of participants: 2

Number of countries involved: 2

	Type	Country	Role	Previous participations to FP
FONDATION MERIEUX	OTH	FR	Coordinator	1
UNIVERSITY OF GENEVA	HES	CH	Participant	1

### Team Composition

Team Size: members\*

GENDER				
Female		Male		Unknown
33,0%		33,0%		33,0%
SENIORITY				
Average		Junior		Senior
0		0		100,0%
PhD				
No			Yes	
33,0%			67,0%	
BACKGROUND				
Applied Sciences	Health Sciences	Humanities & Social Sciences	Natural Sciences	Unknown
0,0%	0,0%	0,0%	100,0%	0,0%

\*The data are based on the analysis of the provided project's Description of Work.

## DELIVERABLES AND PUBLICATIONS

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DELIVERABLE NO.	DELIVERABLE NAME	DUE DATE OF DELIVERY (month)	ACTUAL SUBMISSION DATE: (month)
1	Proposed Programme ADVAC-EC#1	2	

<sup>133</sup> ADVAC-EC Annex I "Description of Work".

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<i>DELIVERABLE NO.</i>	<i>DELIVERABLE NAME</i>	<i>DUE DATE OF DELIVERY (month)</i>	<i>ACTUAL SUBMISSION DATE: (month)</i>
2	<i>Proposed budget ADVAC-EC#1</i>	2	
3	<i>Call for applications ADVAC-EC#1</i>	1	
4	<i>List and country distribution of applicants #1</i>	5	
5	<i>List of selected applicants ADVAC-EC#1</i>	6	
6	<i>Final programme ADVAC-EC#1</i>	7	
7	<i>Report of Evaluation ADVAC-EC#1</i>	11	
8	<i>Annual report on ADVAC-EC#1</i>	12	
9	<i>Proposed Programme ADVAC-EC#2</i>	14	
10	<i>Proposed budget ADVAC-EC#2</i>	14	
11	<i>Call for applications ADVAC-EC#2</i>	13	
12	<i>List and country distribution of applicants #2</i>	17	
13	<i>List of selected applicants ADVAC-EC#2</i>	18	
14	<i>Final programme ADVAC-EC#2</i>	19	
15	<i>Report of Evaluation ADVAC-EC#2</i>	23	
16	<i>Annual report on ADVAC-EC#2</i>	24	
17	<i>Proposed Programme ADVAC-EC#3</i>	26	
18	<i>Proposed budget ADVAC-EC#3</i>	26	
19	<i>Call for applications ADVAC-EC#3</i>	25	
20	<i>List and country distribution of applicants #3</i>	29	
21	<i>List of selected applicants ADVAC-EC#3</i>	30	
22	<i>Final programme ADVAC-EC#3</i>	31	
23	<i>Report of Evaluation ADVAC-EC#3</i>	35	
24	<i>Annual report on ADVAC-EC#3</i>	36	
25	<i>Overall evaluation report</i>	36	

**MAIN SOURCES**

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ADVAC-EC Annex I "Description of Work" (2004).  
 ADVAC-EC Publishable executive summary (2008).  
 ADVAC-EC Impact evaluation summary report (2009).



## **TRAINING AND MENTORING YOUNG SCIENTISTS FROM CANDIDATE, ASSOCIATED AND MEDITERRANEAN COUNTRIES IN A WHOLE FOOD CHAIN APPROACH TO QUALITY AND SAFETY - "YOUNG-TRAIN"**

**Framework Programme: FP6 related to SAS**

**Dimension: SCIENCE LITERACY**

**Tool: Specific Support Actions**

**Project Call For Proposal: FP6-2003-FOOD-2-B**

**Status:**

**Total cost: 583.740**

**Total EU funding: 559.680**

**Website: <http://www.young-train.net/>**

**Period: 01/05/2005- 29/02/2008**

**Subjects: Biotechnology - Coordination and Cooperation - Food - Life Sciences - Policies**

**Project ID and Acronym: ID: 16101, ACRONYM: YOUNG-TRAIN**

### **BACKGROUND AND CONTEXT OF THE PROJECT AND STRATEGIC NEEDS**

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The global consumer demand for high quality, safe and nutritious animal products raised the need to reconnect the food animal systems by improving the transparency and accountability. To tackle the challenges in the food animal system and reduce exposure to crises (e.g. BSE), a comprehensive approach to the food chain was needed. That was particularly important in Central and Eastern Europe and the Mediterranean where interaction among researchers was limited. The project proposed to increase knowledge and networking for initially 40 ECS<sup>134</sup> through training and mentoring in a whole food chain approach to meat safety and quality and to widely disseminate the results to others.

### **SPECIFIC PROJECT OBJECTIVES**

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The YOUNG-TRAIN project aimed to enable Early career animal scientists (ECS) from target countries to participate with collaborative research proposals to future framework programme and to improve dissemination/exploitation of research results deriving from a whole food chain approach to meat safety and quality. By using existing networks, the project specifically aimed to:

- select, train and develop about 40 ECS from Central and Eastern Europe and the Mediterranean to prepare them to take part in future RTD and eLearning activities in a whole food chain approach to meat quality and safety;
- Produce eLearning training and awareness materials for wider dissemination of the whole food chain approach;
- Issue joint RTD proposals in meat quality and safety relevant to the problems of Central and Eastern Europe and the Mediterranean;
- Disseminate the outputs and examples of the whole food chain approach to EU NCPs in Food Safety and Quality, centres of excellence in R&D, meat chain industries, EAAP member organisations and national contacts also beyond the target countries.

The project's specific objectives were relevant for:

- **ERA:** the project contributed to strengthen the ERA by providing the ECS the skills and contacts to connect in research networks to enhance future RTD proposals and start collaborative research activities. In line with the ERA priority "optimal transnational co-operation and competition", YOUNG-TRAIN provided ECS with a forum to interact with their peers in mainstream European research thus, contributing to the prioritisation in future framework programmes. That effort was essential to tackle grand-challenges and crises in the meat food chain by setting common research agendas and policies;
- **Innovation Union:** the project contributed to the IU objective "Delivering the European Research Area" (point 2.2.) by fostering contacts among ECS from new, associate and candidate countries. The establishment of cross-country networks among researchers aimed at issuing joint proposals to FPs would have resulted in an improved transnational cooperation as well as in a strengthened knowledge base in the area of food quality and safety, instrumental to competitiveness and innovation in Europe.

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<sup>134</sup> Early career animal scientists (ECS).

### **SaS/SiS Programme objectives/Activity Lines**

The project was not funded under the SaS programme but it was relevant for the achievement of the programme objectives related to scientific advice, governance and reference systems (Activity Line 4.3.1). In detail, the project contributed to the create conditions under which policy decisions in multi-level governance are more effective in meeting society's needs, more soundly based on science and, at the same time, based on inclusive participation. In fact, the aim of the project was to spread the awareness and knowledge of food quality and safety issues among ECS in Central and Eastern European, Mediterranean countries and representatives so as to meet the demands of the public/consumers for food quality and safety.

### **SaS Action Plan**

The project supported the SaS Action Plan priority to bring science policy closer to the citizens and related actions (Actions 22-23). It acknowledged the need to centre research activities on the needs and aspirations of European citizens. The project also planned to further involve civil society through the dissemination activities and events.

## **PROJECT RESULTS AND OUTCOMES**

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### **Main achievements according to the project objectives**

To attain the set objectives, the project implemented a variety of activities. The main project achievements were:

- The organisation of the first project seminar in Viterbo (IT) in November 2005 to equip ECS with communication and presentation skills for eLearning activities in line with the whole food chain approach;
- The organisation of a second project seminar in Girona (ES) in May 2006 to provide ECS with an overview of EU research programmes and tools including thematic programmes related to food quality and safety. Presentations also addressed the key role of EU National Contact Points (NCPs) and the fundamental components of successful proposals to FP7;
- eLearning material (including presentations from all the training and dissemination events) easily accessible from the public;
- 4 RTD projects developed by the ECS used as a basis for submission to a number of programmes both Europe wide and regional (ANIMACHAIN, MEATSAFECIS, TRADWELF, TRABREEDMEAT).

As announced in the DoW, 40 ECS selected (18 female and 22 male from 22 countries) participated in the project and liked in a network of almost 1000 participants who received information and alerts. A final survey of the ECS recorded high levels of satisfaction on the project effectiveness in relation to eLearning (87%), training and development (100 %) research project development (87%).

### **Main achievements according to Programme objectives**

The expected result in SaS was to foster an active participation of citizens in policy development. The project's outcomes were in line with such expectations. Above all, the scope of the project was to empower ESC by equipping them with the skills, knowledge and contacts to play a full part in research networks. ESC were also trained to communicate to the public and to make use of eLearning distance materials for wider exploitation of results. Ensuring the participation of the public was a core part of the project and it was achieved through:

- A symposium/ round table discussion where public representatives were involved;
- 4 regional dissemination events where meat chain industries (especially SMEs) which were invited and encouraged to attend.

The views collected were used to modify RTD proposals and eLearning materials for wider exploitation. Increasing the interaction between researchers and societal groups was deemed essential to meet societal/consumers' needs for meat quality and safety within the whole meat production systems.

### **Main achievements according to SaS Dimensions**

The project was related to the science literacy SaS dimension due to the core focus on training and communication. In line with a more mature concept of the dimension, education and communication resulted in a co-design approach since the project did not restrict the dialogue to researchers but it involved the wider public in the discussion. The project equipped ESC with skills, knowledge and contacts to play a full part in research networks and to issue proposals. In addition, it integrated consumers' needs' in the training to improve the transparency and accountability of the meat chain systems.

Finally, in line with the open access SaS dimension, the project covered the training and dissemination material into eLearning material, with a range of web delivery formats set to meet the needs of users. Providing easy access to those materials was essential to disseminate the whole food chain approach into the wider public.

## **DISSEMINATION AND ENGAGEMENT ACTIVITIES AIMED AT TRANSFERRING THE PROJECT RESULTS TO WIDER COMMUNITIES**

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Dissemination was a specific objective of the YOUNG-TRAIN project. The dissemination plan announced a “technology interaction approach to form a virtuous circle of problem definition by end users, relevant research activity and dissemination of results”<sup>135</sup>. The project foresaw to: establish a web-based network between early-career scientists from target countries; provide eLearning training materials; organise a Symposium and ‘Round Table’; organise 4 regional dissemination events targeting over 300 stakeholders for interaction, dissemination of research, promotion of eLearning packages, training of other ECS and feedback of RTD ideas relevant to target country needs.

As announced in the dissemination plan, the main dissemination means adopted by the project were:

- 4 regional dissemination events in Central and Eastern Europe and the Mediterranean held in:
  - Cairo in March 2007 -103 delegates from Egypt, Lebanon, Morocco, Syria, and Turkey.
  - Budapest in July 2007 – 84 delegates from Croatia, Hungary, Poland, Romania, Serbia, Slovakia, Slovenia,
  - Astana in January 2008 – 97 delegates from Kazakhstan, Armenia, Georgia, Kyrgyzstan and Uzbekistan
  - Kaunas in April 2008 – 63 Delegates from the Baltic region
- A project and eLearning website (<http://www.young-train.net/>) updated to include all the Learning materials derived from the project events (‘train the trainers’).
- Seminars, workshops, presentations and round table discussions on meat quality and safety addressing also ethical, environmental and consumer issues along the meat chain

As for the degree of achievement, the project website recorded 3,000 visits during the 2007/2008 with an average of 1,408 files downloaded per month. A final survey of the ECS provided a positive assessment on the level of achievement of the dissemination objectives (90%).

## **PROJECT IMPACTS**

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The YOUNG-TRAIN programme main potential impacts were: promotion of the whole food chain concept and its potential benefits; networking between ECS and other scientists; improved communication between researchers and effective information sharing with research organisations in the meat food chain; improved dissemination of EU research results and awareness of innovative eLearning methods. Looking at the project consortium, only the University of Bristol was in the top 1% of the most central organisations in the whole FP, due to its ability to attract other central organisations and thus to spread information about the project (*betweenness centrality*). It was also among the top Universities (place 50<sup>th</sup>) in the Leiden ranking for the extremely high quality of its publications and thus, its scientific attractiveness. The involvement of the University in the Consortium together with other 2 central Institutes (top 5% for betweenness centrality) raised the potential impacts of the project.

As for the project actual impact, ECS had the opportunity to meet and network with mainstream European scientists. Thanks to discussions and training project events, researchers gained an increased awareness of relevant issues along the food chain and improved the communication with each other.

The other project actual impacts could be classified as follows:

- **Scientific impact** there were no publications or citations related to the project thus, there was no relevant scientific echo;
- **Social media impact** there was no relevant impact according to the Social media listening buzz results (near 0);
- **Organisational and Institutional impact** Representatives from research organisations in the meat food chain involved as project partners and in the steering group<sup>136</sup> in support of the ECS, established more effective contacts for collaboration and networking. As examples: one of the ECS, became a member of the Horizontal Activities Working Group of the European Technology Platform ‘Food for Life’ acting as link between the WG and young scientists; 2 members of the ECS attended the European Information and Brokerage Days in November 2007 in Brussels;

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<sup>135</sup> DoW

<sup>136</sup> The Project Steering Group comprised 9 senior independent advisors responsible for monitoring and guidance of the project as a whole.

- **Policy impact:** the project supported the dissemination and exploitation of research results in participating countries by establishing links between EAAP<sup>137</sup> country contacts, the ECS and the NCP for food quality and safety. Between 91 and 94.8% of delegates to the 4 project events agreed that materials met their needs and between 85.7 and 93.5% agreed that RTD proposals were relevant to the needs of their region.

## PATH-BREAKING ADVANCEMENTS

The project brought a new holistic approach to the meat chain by addressing the post-far gate scientific challenges as well as the ethical, societal and consumers' issues affecting the food chain systems. It supported the definition and wide uptake of the **whole food chain concept** by ECS and the wider community taking also into account the livestock system RTD needs, relevant to the problems of the target countries. The communication workshops and the involvement of the wider public through round table discussions, was key to raise the awareness of the complex issues related to the food chain in meat. As part of the project, improved training and awareness materials were delivered at long distance through *innovative eLearning method* and a *technology interaction approach* was used to solve end user problems. Finally, another source of innovation was the use of a multidisciplinary steering group representing stakeholders in the chain for mentoring so as to combine different backgrounds along the meat food chain.

## BEST PRACTICES

The project involved a wide network of organisations concerned with Food Quality and Safety (980 members in 6 main groupings: Research Centres, ECS institutions, Eaap contact points, FAO Regional offices, EU based contacts, Food Safety Contact points). A network meeting was held with FAO in Antalya in September 2006 (80 Participants). As good practice, it also connected to other FP6 projects with similar aims. That included a joint meeting with the FP6 Truefood project in Budapest in July 2007 (53 participants) and also attendance by ECS at technology platform meetings and brokerage events. Two members of the ECS also attended one of the European Information and Brokerage Days International Cooperation in the Theme 2 of the FP7 in November 2007 in Brussels. Based on such collaborations, the project developed research and dissemination themes for future dissemination events across the target countries.

## EU ADDED VALUE OF THE PROJECT

The project value lied in the developed eLearning materials and RTD proposals in relation to the ability to solve the problems of the regions involved and to tackle common ground challenges. Feedback assessment ratings from audiences of both project outputs were particularly positive meaning that they had an impact on the target countries.

## PARTICIPANTS AND RESEARCH TEAM

### Participants

Number of participants: 10

Number of countries involved: 9

	Type	Country	Role	Previous participations to FP
EUROPEAN ASSOCIATION FOR ANIMAL PRODUCTION	OTH	IT	Coordinator	1
UNIVERSITY OF KAPSOVAR	HES	HU	Participant	1
UNIVERSITY OF BRISTOL	HES	GB	Participant	85
KOZPONTI ELELMISZER-TUDOMANYI KUTATOINTEZET	REC	HU	Participant	1
INSTITUT DE RECERCA I TECNOLOGIA ALIMENTARIES	REC	ES	Participant	1
INSTITUT AGRONOMIQUE ET VETERINAIRE HASSAN II	HES	MA	Participant	1
FIRAT UNIVERSITY	HES	TR	Participant	1
BALTIC GENOFUND	-	LT	Participant	2
AGRICULTURAL INSTITUTE	REC	SI	Participant	1

<sup>137</sup> Federation of European Livestock Science (EAAP).

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	Type	Country	Role	Previous participations to FP
OF SLOVENIA TEAGASC - AGRICULTURE AND FOOD DEVELOPMENT AUTHORITY	REC	IE	Participant	1

**Team Composition**

Team Size: members\*

GENDER				
Female		Male		Unknown
47,0%		47,0%		6,0%
SENIORITY				
Average		Junior		Senior
76,0%		24,0%		0,0%
PhD				
No			Yes	
47,0%			53,0%	
BACKGROUND				
Applied Sciences	Health Sciences	Humanities & Social Sciences	Natural Sciences	Unknown
0,0%	0,0%	41,0%	12,0%	29,0%

\*The data are based on the analysis of the provided project's Description of Work.

**DELIVERABLES AND PUBLICATIONS**

DELIVERABLE NO.	DELIVERABLE NAME	DUE DATE OF DELIVERY (month)	ACTUAL SUBMISSION DATE: (month)
D1.1	Written project organizing, administrative and finance procedures	3	
D1.2	Steering Group (to include 4 partners representatives from the target countries), Project Management Team and early career scientists platform appointed and remits agreed	2, 9	
D1.3	Progress reports and cost statements to Commission	12, 24	
D1.4	Website established and supported	3	
D1.5	Final report & cost statement to Commission	34	
D2.1	Course materials for face to face delivery	5, 8, 12	
D2.2	Course materials converted into eLearning packages for feedback from ECS and vents audiences	5, 8, 12	
D2.3	Course materials modified in line with feedback and transferred to websites	28	
D3.1	40 Selected ECS	3	
D3.2	Report detailing the selection procedures adopted, the opinion of the Project Steering Group on the selection procedures and an initial analysis and assessment of training and mentoring needs of the selected ECS	3	
D3.3	Delivery of training seminar and the awareness seminar and report of the proceedings of the training seminar and the awareness seminar (written and website) and documented ECS feedback on course content and value and on the current drafts of eLearning packages	6, 9, 12	
D3.4	Assessment reports of the extent of knowledge and skills gained by the ECS from the seminars and	7, 10	

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Final Case Studies

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DELIVERABLE NO.	DELIVERABLE NAME	DUE DATE OF DELIVERY (month)	ACTUAL SUBMISSION DATE: (month)
	<i>analysis of their needs for any further remediation and mentoring</i>		
D3.5	<i>Network meetings (2), strategic plan for network and associated proceedings and website established and maintained for interaction, discussion and recommendations</i>	18, 27	
D4.1	<i>The Workshop and Symposium/ Round Table organised and presented together with proceedings and recommendations (hard copy and web) with analysis of ECS and audience feedback</i>	13, 16, 18, 21	
D4.2	<i>RTD concepts further developed and documented in Part B format to provide a basis for full project proposals to be submitted post project to FP7</i>	21	
D4.3	<i>Audio-visual information to support eLearning packages and dissemination events</i>	21	
D5.1	<i>Project (and embedded network) website maintained and record of usage maintained and reported</i>	34	
D5.2	<i>Four regional events organised and presented together with proceedings and recommendations for future RTD priorities (hard copy and web) with analysis of ECS and audience feedback</i>	22, 24, 27, 29	
D5.3	<i>Recommendations on framework and participating organisations for sustainable delivery of eLearning packages in target countries and wider (hard copy and website)</i>	28	
D5.4	<i>RTD proposals in current 'part B' format (i.e. Scientific and technical objectives, relevance, impact, and work plan) further refined from feedback and supported by project champion/ ECS teams and underpinned by the established network. It is anticipated that, post project, 4 to 5 of the 8 to 10 developed in WP4 will be submitted as full project proposals in appropriate format to FP7</i>	32	

**MAIN SOURCES**

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YOUNG-TRAIN Annex I - "Description of Work" (2005)  
YOUNG-TRAIN Final Report  
YOUNG-TRAIN Result in Brief

## **THE ROLE OF KNOWLEDGE IN THE CONSTRUCTION AND REGULATION OF HEALTH AND EDUCATION POLICY IN EUROPE: CONVERGENCES AND SPECIFICITIES AMONG NATIONS AND SECTORS "KNOWANDPOL"**

**Framework Programme: FP6 related to SAS**

**Action line/Part: Thematic priority 7 (Priority 7) 'Citizens and Governance in a knowledge-based society'**

**Activity: CITIZENS-2004-1.1.1 – Knowledge based policies for the knowledge based society: policy learning and the sources of policy knowledge**

**Area: FP6-2004-CITIZENS-4**

**Dimension: SCIENCE LITERACY**

**Tool: Integrated Projects**

**Project Call For Proposal: FP6-2004-CITIZENS-4**

**Status: closed**

**Total cost: € 4 650 540.00**

**Total EU funding: € 3 997 007.00**

**Website: <http://www.knowandpol.eu/>**

**Period: 01/10/2006 - 30/09/2011**

**Subjects: Policies - Social Aspects**

**Project ID and Acronym: 28848 KNOWANDPOL**

### **BACKGROUND AND CONTEXT OF THE PROJECT AND STRATEGIC NEEDS**

As societies develop, social identities become more varied, social processes more differentiated and occupational roles more specific. Each assumes a particular way of knowing about the world. "What is communicated as 'the knowledge society' is actually a society of knowledges." In Europe, information and expertise are now more widely available and distributed than ever before. At the same time, expectations of transparency and public accountability have increased. In turn, the legitimacy and authority of social and political communication processes depends on the legitimacy and authority of the knowledge on which these processes draw. Knowledge is both contested and a means of contestation. Knowledge has become both the vehicle and the substance of politics. Both social cohesion and effective government depend on integrating knowledge as well as stakeholder interests in a European multilevel-actor policy system.

Yet we understand relatively little about the process by which knowledge formation and transfer takes place. What does society as a whole know about the problems it is facing? How are its different sources of information and how are ways of knowing mobilized in making policy decisions? To what extent does government rely on mobilizing knowledge? Twelve research teams specialized in the analysis of sector-based policies addressed the issues above in respect of two public policy areas, health and education. Both are under pressing concern of both governments and citizens across Europe, and each policy area raises questions about the combination of scientific, practical and managerial knowledge and understanding in different ways. The project has been both multinational and multilevel, in that it looked at knowledge and governance countries in eight different countries and at the local, national and international policy level.

### **PROJECT OBJECTIVES**

The project aimed at analysing the role of knowledge for public policy-making in the fields of health and education. In order to achieve this aim the project was oriented on issues like scientific relevance: theoretical and methodological innovation, empirical understanding and professional training of junior researchers. And it was oriented on issues of social and political relevance: increasing and improving contact and communication between policy-makers, researchers, consultants and other experts, including professional leaders and interest groups.

According to the description of work, the specific objectives were clustered as follows:

- Conduct and disseminate a systematic literature review regarding the relationship between knowledge and policy decision-making, which can serve as a reference for future research. Compare the various theoretical currents and identify their proximities and interconnections.
- Integrate the state of art in research on new modes of regulation and innovative public policies. This will involve theorizing the role of knowledge in new modes of regulation.
- Publish the research results (case studies, literature review, cross sectoral and cross national comparative analysis) in international journals and make a project Bibliography open available.
- Develop the theoretical and methodological scientific competencies of the consortium's junior researchers and support mastery for junior researchers and students outside the consortium.
- Propose appropriate procedures for interaction between researchers and policy decision-makers
- Develop public awareness regarding the relationship between knowledge producers and public policy-makers as potential end-users of the knowledge produced.



- Define best practices and support knowledge-based policy-making, i.e. a policy developed rather independent of interests group influence. Special attention is given both to promote consideration of tacit knowledge of minority groups and to integrate different levels of public policy-making.
- Contribute to the integration of new member countries, candidate countries and associated countries. Contribute to interaction with policy-maker from all of the countries involved.
- Consolidate the cooperation of the 12 partner organisations beyond the project and connecting with international research networks working on issues of knowledge and public policy decision-making.
- Contribute to an interdisciplinary scientific among the social science disciplines involved.

With regard to the dimensions Science Governance and Science Education and Literacy in the FP6-SaS Work Programme, the KNOWandPOL project aimed at creating conditions under which public policy decision-making in multi-level governance arenas are more effective in meeting society's need, and more soundly based on scientific knowledge in the health and education sector. In specific the KNOWandPOL project contributes to topic „4.3.11 Creating a more dynamic interface between science and policy making“ by providing a conceptual background for knowledge-based public policy making in the health and education sector.

The project contributed to the **FP6-SaS Specific Programme** objective "Integrating and Strengthening the European Research Area". Priority 7: "Citizens and Governance in a knowledge based society". The call for proposal in the Work Programme 2004-2006 requested the following issues to be reviewed 1) The politicization of knowledge production, 2) the use of knowledge in political decision-making and as an instrument of power, 3) the effectiveness of knowledge production for public policy-making as well as the effectiveness of knowledge-based public-policy making.

#### **SaS Action Plan**

The KNOWandPOL project addressed the issue "Responsible science at the heart of policy-making" in the **Science and Society Action Plan** as it intended to improve the delivery of scientific support to public policy-making and the improvement of such support practices through networking at the European level (Strengthening of scientific networks). No connection to one of the specific action of the Science and Society Action Plan could be made.

The project contributed as well to the dialogue among science and policy-making and thus contributed to the **European Research Area (ERA)** objective of achieving "optimal circulation, access and transfer to scientific knowledge by the public policy across Europe".

#### **PROJECT RESULTS AND OUTCOMES**

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The KNOWandPOL project was supposed to contribute to the programme objective of the FP6 Specific Programme "Integrating and Strengthening the European Research Area" (Priority 7: Citizens and Governance in a knowledge based society. The activities carried out within the project addressed the "emergence of a knowledge-based society". This was the overall objective of the work programme 2004 to 2006 in Priority 7. In the KNOWandPOL project in a first step a state of knowledge analysis by a literature review was performed regarding the relationship between knowledge and policy decision-making. In a second step two sector studies were undertaken specifically analysing the health and education sector. At the core of the KNOWandPOL project was a comparative analysis regarding the relationship between science based knowledge production and public policy decision-making. The KNOWandPOL project referred in particular to the specific objective in the above mentioned FP6 Specific Programme "understanding the ways in which public policy organizations learn and to assess the role of knowledge in the formulation and implementation of public policies, with a view to promote policy learning and knowledge based policy-making".

The KNOWandPOL project focused on science and policy-makers in the health and education sector. They have been addressed with scientific publications, seminars, teachings, symposiums, the website and an electronic newsletter. According to the "Final Disseminating plan" all project objectives were met However, the electronic newsletter and the public media were less used than initially planned in the description of work.

The international literature seminar was highlighted as the second important event next to the closing symposium. Among the participants of this event, the audience consisted of the researchers involved in the KNOWandPOL project, and the members of the end user advisory group. Forty-seven persons participated in the seminar. Yet, since the deliverable about the international literature seminar does not include a list of participants it cannot be assessed to what extent policy-makers or representatives of administrations took part in this event. Thus it is uncertain whether the event can be considered a successful interaction between researchers and policy-makers. As stated in the "Final plan for Using and disseminating knowledge" the communications made in international symposiums were organised by and for the scientific community. The same applies to the seminars or other teachings.

The other communications organised within the project were organised for the research community or aimed at directly presenting the results to a small audience of end users interested in the project's research. There is no indication that this impacted on policy-making even though it can also not be excluded with certainty given that there is no detailed information on these events.

#### **Main achievements according to SaS Dimensions**



The KNOWandPOL project belongs to an early generation of projects in a rather new SaS programme. Therefore interactive science-policy approaches seemed to have been rather underdeveloped in KNOWandPOL in favour of traditional scientific publication activities, which have been impressive according to the 'Final report' and the 'Final plan for using and disseminating knowledge' (see below).

## **DISSEMINATION AND ENGAGEMENT ACTIVITIES AIMED AT TRANSFERRING THE PROJECT RESULTS TO WIDER COMMUNITIES**

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The KNOWandPOL "Plan for disseminating knowledge" contains rather general information on a) publications and papers b) the web site c) electronic newsletter as well as e) dissemination to end users

According to the 'Final report' and the 'Final plan for using and disseminating knowledge', the list of KNOWandPOL references included 910 items classified in the following three categories: published articles (393), communication materials (495) and general media entries (22).

There are four types of publications mentioned in the final plan for using and disseminating knowledge:

- The KNOWandPOL reports (deliverables) are the results of the literature review and the field research and are available on the KNOWandPOL website;
- Journal papers published or books or special issues coordinated by KNOWandPOL project partners including articles written by KNOWandPOL partner organisations;
- Journal papers published in scientific or professional journals;
- Books written by single authors and doctoral theses.

The project team has published 106 reports within the project, edited and published articles in 140 special issues, wrote 136 journal articles, of which 94 have been submitted to peer-review. In the KNOWandPOL project 10 textbooks were published, several of them as doctoral theses. A detailed list of publications can be found on the project website.

Within the project duration 495 KNOWandPOL communications have been published according to the final activity report and dissemination plan. Among the communication activities have been 114 KNOWandPOL events, 97 international symposia, 60 seminars, 25 teachings and 200 other communication events during the projects duration.

Among the symposia the Closing Symposium was highly significant. It took place as final conference in Brussels on the 23. September 2011 was involving high level policy makers from Europe (see Deliverable 25: Closing symposium).

With regard to the dissemination of project results to the general public, the project's final dissemination plan only mentions 22 instances of communications to the general public, mainly by writing articles in newspapers or giving interviews to public media. The project team acknowledged that they could have made better dissemination in this direction while stating that the main issues of the project were not easy to disseminate to the general public. The main effort in this direction was the project website ([www.knowandpol.eu](http://www.knowandpol.eu)). During the period between 1/12/11 and 31/05/12, the project team counted 3.066 visits (2.258 visitors) on the website with a mean of 3,72 pages viewed per visit. The average number of visits per week is therefore 118. The project consortium developed during the project a wiki entry: <http://www.wikideb.org>. Unfortunately, the website seems to have been taken down (as of August 2016). It is still possible to find an entry on WikiDeb. The wikideb entry was Wiki of the month in February 2013. This was investigated on the Semantic MediaWiki homepage (<https://www.semantic-mediawiki.org/wiki/WikiDeb>). The wiki web entry existed during the projects duration and for some time after the project's end.

The KNOWandPOL projects objective No. 4 "Develop the theoretical and methodological scientific competencies of the consortium's junior researchers" was achieved, in particular, "through the consortium's international meetings in which the junior researchers have been involved: the international seminars, the international symposia, the Summer School and a two-week's visit to one of the other partner organisations in the consortium". According to the project's 'Final activity report', this objective was well met considering the high number of publications and communications delivered by young researchers in the KNOWandPOL project.

The Summer School took place in September 2011 in Brussels. In the Description of Work (DoW) three different trainings courses of end-users, policy maker and public administration officials) were foreseen. Several trainings for end-users took place in Belgium, France, Germany, Hungary, Norway, Portugal, Romania and Scotland (see Deliverable 14: Training of end users). According to the interim activity report, the second training of end users took place in Paris on 26 January 2011 at one of the regional agencies for public health subordinate to the French Ministry of Health with 15 participants. There is no specific report on this second training event. According to the activity report a third training event series "Knowledge as an instrument for regulation" was implemented in France, Germany, Hungary, Norway, Portugal, Romania and Scotland.

## **PROJECT IMPACTS**

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Six out of thirteen partners belong to the top 1% of the most central organisations in the overall European Framework Programme network – Centre National de la Recherche Scientifique (CNRS), Hungarian Academy of Sciences, Liège University, Ludwig Maximilian University of Munich, Université Catholique de Louvain, University of Edinburgh. Two other organisations, Eotvos Lorand University and University of Bergen, belong to the top 5% organisations. The potential of the consortium to disseminate project results can therefore be assessed as high. Two of the participating

organisations are mentioned in the Leiden University Ranking. The position of the University of Bergen is at point 298 and the position of the University of Edinburgh at point 67. The University of Edinburgh is among the 100 highly ranked universities in Europe according to the Leiden University Ranking.

- **Scientific Impact:** According to the OPENAIRE database of project related publications, there is only one publication in a scientific journal mentioned in the European Open Access scientific journal resulting from the project: "Global Knowledge-based Policy in Fragmented Societies: the case of curriculum reform in French-speaking Belgium". It is cited 19 times in scientific journal articles in the years after its publication. The dissemination plan mentions 136 journal articles, of which 94 have been submitted to peer-reviews.
- **Social Media Impact:** The social media analysis has shown that in the overall period 23/05/2008 - 30/09/2013 only 48 social media posts related to the KNOWandPOL project can be counted. Considering the rather moderate number of visits to the KNOWandPOL website the public awareness of the project might be assessed as rather low. There is also no empirical evidence on further impacts of the website, which is still operational.
- **Policy impact:** the Policy-making goals of the KNOWandPOL project aimed at proposing innovative modes for interaction between researchers and decision-makers, examining the relationship between knowledge producers and public policy-makers and raising public awareness regarding this relationship. The events and symposia in the KNOWandPOL communication activities targeted policy-makers as stated in the "Final plan for using and disseminating knowledge". During several events interaction between researchers (as knowledge producers) and decision-makers took place, for example, during the closing symposium or the international literature festival. About 100 participants took part in this event. Twenty-eight of the participants were from policy-making institutions including three from the European Commission, one from the OECD as well as from national and federal state public administrations, parliaments and NGOs. There is no evidence that a systematic creation of new organisations and networks as follow-up to the project took place. But in the project a wiki entry was implemented: <http://www.wikideb.org>, which was accessible at least some time after the end of the project duration.

The KNOWandPOL project contributed to the European Integration (integration of new member countries, candidate countries and associated countries) and to increase the interconnection among various international research networks dealing with the problem of the relationship between knowledge production and decision-making. According to the 'Final plan for Using and disseminating knowledge' - 92% of the communications were made inside the European Union. 81% of communications took place in the countries of origin of the 12 partner organisations in the project. In five countries the majority of communications took place: France (113), Belgium (91), Norway (52), Hungary (40) and Germany (32). As stated in the final dissemination plan the project partners from at the time new member states, Hungary and Romania, had only a few opportunities to communicate the project in their home countries. 70% of the website visits came from the European Union.

### **PATH-BREAKING ADVANCEMENTS**

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It would go too far to appraise the KNOWandPOL project as path-breaking advancement regarding the improvement of the relationships among researchers as knowledge producers and policy decisions-makers as end-user of this knowledge. However, the project strongly contributed to a better understanding of knowledge production and knowledge transfer to support policy decision-making and public policy coordination and learning. The project contributed as well to raise the awareness of the general public in respect to the importance of knowledge- and evidence-based public policy making in the health and education sector.

### **EU ADDED VALUE OF THE PROJECT**

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Project partners from eight different European Member Countries were involved in the KNOWandPOL project. They brought in different national perspectives (i.e. institutional, cultural) regarding i.e. the relationship between knowledge production and the use of knowledge in public policy decision-making. The KNOWandPOL project has a high European added value. It provided a platform for coordination and learning regarding the production and use of scientific- and other knowledge stock in public policy in the health and education sector across several European member states. In both sectors public authority is due to the European Union subsidiarity principle mandated at the national or in some countries even at the federal state level (education), while knowledge and evidence relevant for both sectors (in particular the health sector) is produced in transnational research and innovation networks. On this account it is very significant to develop and train advanced modes to produce and transfer knowledge and to use it in public policy making at different territorial levels in Europe. To coordinate and integrate such an attempt at the European level is highly relevant.

### **PARTICIPANTS AND RESEARCH TEAM**

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#### **Participants**

Number of participants: 13

Stock-taking and meta-analysis of Science in Society projects throughout FP6 and FP7  
Final Case Studies

Number of countries involved: 8

	Type	Country	Role	Previous participations to FP
UNIVERSITÉ CATHOLIQUE DE LOUVAIN	HES	BE	Coordinator	102
SAPIENTA ERDELYI MAGYAR TUDOMANYEGYETEM	HES	RO	Participant	1
FACULDADE DE PSICOLOGIA E DE CIENCIAS DA EDUCACAO DA UNIVERSIDADE DE LISBOA	HES	PT	Participant	1
NORWEGIAN INSTITUTE FOR URBAN AND REGIONAL RESEARCH	REC	NO	Participant	1
HÖGSKOLEN I ÖSTFOLD	HES	NO	Participant	1
SZOCIOLÓGIAI KUTATÓINTEZET - MAGYAR TUDOMÁNYOS AKADÉMIA	REC	HU	Participant	
EÖTVÖS LÓRÁND TUDOMANYEGYETEM	HES	HU	Participant	1
ÉTABLISSEMENT PUBLIC DE SANTÉ MENTALE - LILLE MÉTROPOLE	OTH	FR	Participant	1
UNIVERSITETET I BERGEN	HES	NO	Participant	42
THE UNIVERSITY OF EDINBURGH	HES	GB	Participant	132
LUDWIG-MAXIMILIANS-UNIVERSITÄT MÜNCHEN	HES	DE	Participant	52
UNIVERSITÉ DE LIÈGE	HES	BE	Participant	73
CENTRE NATIONAL DE LA RECHERCHE SCIENTIFIQUE	REC	FR	Participant	540

### Team Composition

Team Size: members\*

GENDER				
Female		Male		Unknown
27%		49%		24%
SENIORITY				
Average		Junior		Senior
5%		15%		80%
PhD				
No		Yes		
17%		83%		
BACKGROUND				
Applied Sciences	Health Sciences	Humanities & Social Sciences	Natural Sciences	Unknown
0%	10%	90%	0%	0%

The data are based on the analysis of the provided project's Description of Work.

### DELIVERABLES AND PUBLICATIONS

The KNOWandPOL project was divided into 7 sub-projects (see table below):

Orientations	Sub-projects	Territorial levels
Introduction in-depth literature review	1 In-depth literature review	
Orientation 1 Policy learning mechanisms and morphology of knowledge	2 Policy learning mechanisms and morphology of knowledge	National (Sub-national)
Orientation 2 Knowledge and policy-making	3 Knowledge and policy-making at the national level	National
	4 Knowledge and policy-making at the sub-national level	Sub-national
Orientation 3 Knowledge as an instrument of regulation	5 Production of knowledge as an instrument of regulation	Supra-national National
	6 Reception of knowledge as an instrument of regulation	National Sub-national
Conclusion National and international syntheses	7 National and international syntheses	

In the end, the KNOWandPOL project contained 26 Work Packages and the following the Description of Work (DoW) the following deliverables were provided:

Deliverable No	Deliverable title	WP N°
D1	Orientation 1 specifications	WP1
D2	Orientation 2 specifications	WP2
D3	Orientation 3 specifications	WP3
D4	4 thematic reports on the literature reviews	WP4
D5	Creation of the integrated project Web site	WP5
D6	12 national and sector-based reports (field research) Orientation 1: Policy learning mechanisms and morphology of knowledge Field research	WP6
D7	Literature synthesis report	WP7
D8	Seminar on literature	WP8
D9	A final report Orientation 1 : integration	
D10	12 research reports	
D11	2 research reports (one per team)	
D12	12 final reports (one per team).	
D13	12 final reports (one per team).	
D14	Orientation 1 : Training of end users	
D17	Sharpening our Understanding of a Globalizing World: The Interplay of Theorization and Comparative Research	
D18	Connaissances et politiques de régulation des inscriptions scolaires en Belgique francophone	
D19	Summer School	
D20	Third training of end users	
D21	Knowledge and public action A transversal analysis of 12 case studies	
D23	Collective publications	
D25	Closing Symposium	
additional	Website <a href="http://www.wikideb.org">www.wikideb.org</a>	

### Publications delivered

In the OPENAIRE database only one publication is listed: Eric Mangez, Cattonar Branka (2010): "Global Knowledge-based Policy in Fragmented Societies: the case of curriculum reform in French-speaking Belgium".

The website of the project refers to the following deliverables and communication materials. A comprehensive list of publications related to the project can be found in the "Final plan for using and disseminating knowledge".

Publications no.	PUBLICATION	LINK (when available)
1.	KNOW&POL Reports " <b>Orientation 1 : The social and cognitive mapping of policy</b> "	<a href="http://www.knowandpol.eu/Orientation-1-The-social-and,126.html?rub_id=263">http://www.knowandpol.eu/Orientation-1-The-social-and,126.html?rub_id=263</a>
2.	KNOW&POL Reports " <b>Orientation 2 : Knowledge and policy-making</b> "	<a href="http://www.knowandpol.eu/Orientation-2-Knowledge-and-policy,127.html?rub_id=263">http://www.knowandpol.eu/Orientation-2-Knowledge-and-policy,127.html?rub_id=263</a>
3.	KNOW&POL Reports " <b>Orientation 3 : Supra-national instruments : fabrication, circulation and use</b> "	<a href="http://www.knowandpol.eu/-Reports-.html">http://www.knowandpol.eu/-Reports-.html</a>
4.	KNOW&POL Reports " <b>Orientation 3 : National instruments : fabrication, circulation and use</b> "	<a href="http://www.knowandpol.eu/Orientation-3-National-instruments.html?rub_id=263">http://www.knowandpol.eu/Orientation-3-National-instruments.html?rub_id=263</a>
5.	KNOW&POL Reports " <b>Literature review and theoretical framework</b> "	<a href="http://www.knowandpol.eu/Literature-review-and-theoretical,142.html?rub_id=263">http://www.knowandpol.eu/Literature-review-and-theoretical,142.html?rub_id=263</a>
6.	KNOW&POL Reports " <b>Integrative reports</b> "	<a href="http://www.knowandpol.eu/Integrative-reports.html?rub_id=263">http://www.knowandpol.eu/Integrative-reports.html?rub_id=263</a>
7.	KNOW&POL Papers " <b>Français</b> "	<a href="http://www.knowandpol.eu/Francais,119.html?lang=en&amp;rub_id=265">http://www.knowandpol.eu/Francais,119.html?lang=en&amp;rub_id=265</a>
8.	KNOW&POL Papers " <b>Norsk</b> "	<a href="http://www.knowandpol.eu/Norsk,125.html?rub_id=265">http://www.knowandpol.eu/Norsk,125.html?rub_id=265</a>
9.	KNOW&POL Papers " <b>English</b> "	<a href="http://www.knowandpol.eu/Papers-in-English.html?rub_id=265">http://www.knowandpol.eu/Papers-in-English.html?rub_id=265</a>
10.	KNOW&POL Papers " <b>Português</b> "	<a href="http://www.knowandpol.eu/Portugues,121.html?rub_id=265">http://www.knowandpol.eu/Portugues,121.html?rub_id=265</a>
11.	KNOW&POL Papers " <b>Español</b> "	<a href="http://www.knowandpol.eu/Espanol,122.html?rub_id=265">http://www.knowandpol.eu/Espanol,122.html?rub_id=265</a>
12.	KNOW&POL Papers " <b>Deutsch</b> "	<a href="http://www.knowandpol.eu/Deutsch,123.html?rub_id=265">http://www.knowandpol.eu/Deutsch,123.html?rub_id=265</a>
13.	KNOW&POL Papers " <b>Magyar</b> "	<a href="http://www.knowandpol.eu/Magyar,124.html?rub_id=265">http://www.knowandpol.eu/Magyar,124.html?rub_id=265</a>

**MAIN SOURCES**

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eCORDA  
CORDIS database  
OPENAIRE database  
Project deliverables  
Project description of work  
Project final activity report and dissemination plan  
European Commission Communication on the Science and Society Action Plan and the European Research Area

## **LEARNING AND PRACTICING PHARMACOVIGILANCE IN THE MEDITERRANEAN COUNTRIES OF THE EU "MED EPHV"**

**Framework Programme: FP6 related to SAS**  
**Dimension: SCIENCE LITERACY**  
**Tool: Co-operative Research Projects**  
**Project Call For Proposal: FP6-2004-SME-COOP**  
**Status: -**  
**Total cost: 1.315.840**  
**Total EU funding: 804.420**  
**Website: - (the link - <http://www.medephv.net/> - does not work anymore)**  
**Period: 1/09/2006- 31/12/2008**  
**Subjects: -**  
**Project ID and Acronym: ID: 33016, ACRONYM: MED-EPHV**

### **BACKGROUND AND CONTEXT OF THE PROJECT AND STRATEGIC NEEDS**

Adverse reactions to medicines subsequent to their market authorisations, posed a serious threat to public health. Recognising and notifying any Adverse Drug Reactions (ADRs) was a complex task requiring knowledge and expertise from health professionals. The complexity of ADRs recognition determined a poor delivery of notifications (both in quality and quantity) to the central medicines authorities including national bodies and the European Agency. In addition, the limited pharmacovigilance<sup>138</sup> support – knowledge dissemination and technical systems- provided to health practitioners and patients further reduced the ADRs recognitions and notifications, especially in the peripheral parts of health systems. Thus, there was a clear need for the medical community to comply with the regulatory requirements about pharmacovigilance and for health practitioners to learn and practice pharmacovigilance. The proposed strategy focused on enhancing the ADRs notification system to improve the EU performance.

### **SPECIFIC PROJECT OBJECTIVES**

The Med-ePHV project aimed to research on and develop an innovative approach to the EU pharmacovigilance practice by designing and implementing a **pharmacovigilance co-operative e-learning system** which specifically targeted the needs and profile of health practitioners and patients in the Mediterranean countries. Such system would have permitted to learn and practice adverse drug reactions notification at the peripheral edge. Necessary steps were:

- to develop **pharmacovigilance e-learning courses** and tutoring schemes for health professionals in France, Italy and Spain based on pharmacovigilance science and regulation. The e-learning modules were planned to be tested and validated by three levels of end-users (SMEs, Health practitioners and Pharmaceutical industry);
- to develop **on-line ADRs notification and reporting models** to be used for training purpose;
- to establish a **pharmacovigilance focused virtual community** by: studying and designing a co-operative environment as the central component of a transnational application grid initially covering the three target countries, and shared by LHAs<sup>139</sup>, MAHs<sup>140</sup> and health practitioners.;
- to ensure **commercial exploitation** of the e-learning materials for training modules by participating SMEs in their respective countries;
- to make available on-line based e-learning services through the shared application grid to potential Mediterranean countries and other countries with language affinity.

The project's specific objectives were relevant for:

- **ERA:** the project focused on the mobility of people thus, contributing to a component of the ERA. In detail, it supported the development of education and training systems across Europe (through innovative pilot projects and transfer). Therefore, the project provided a contribution to the ERA priority "Optimal circulation,

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<sup>138</sup> Pharmacovigilance referred to the practice of identifying, collecting and analysing the adverse reactions to medicines following their market authorization, to safeguard public health and to minimise health risks.

<sup>139</sup> Local Health Authorities (LHA).

<sup>140</sup> Market Authorisation Holders (MAH).

access to and transfer of scientific knowledge" (point 2.5) by enhancing the link between public research institutions and the private sector.

- **Innovation Union:** the project supported the IU objective "promoting excellence in education and skills development" (point 1.1) by providing innovative services and e-learning material on pharmacovigilance thus, improving the overall knowledge base. The dissemination of the research and training outputs across Europe could stimulate the EU competitiveness in ADRs recognition and notification towards better performances.

### **SaS/SiS Programme objectives/Activity Lines**

The project was not funded under the SaS programme but it was relevant to attain some programme objectives. Namely, the project contributed to raise the public awareness of scientific and technological advances, and their societal impacts by making available the developed on-line based e-learning services through the shared application grid to potential Mediterranean countries and other countries. By prioritising education and training, the project contributed to make the European Union an advanced knowledge society where expertise and knowledge is shared cross-boundaries.

### **SaS Action Plan**

The project effort was relevant for the SaS Action Plan objective to promote scientific education and culture in Europe. In fact, it aimed to raise public awareness of pharmacovigilance requirements and to equip practitioners with advanced tools for ADR notification and recognition.

## **PROJECT RESULTS AND OUTCOMES**

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### **Main achievements according to Project objectives**

The project developed a Med-ePHV e-learning system following constructivism principles. It adopted an approach based on modelling of the pharmaceutical practice to deliver grid-based services. Compared to the objectives set, the project main achievements were:

- a comparative analysis of the implementation of the **pharmacovigilance business process** in the EU and in particular in the three Mediterranean countries; the identification of the **requirements** for an improved pharmacovigilance business process;
- the design and implementation of a **number of pharmacovigilance pilot eLearning courses**, based on a previous study of Med-ePHV Learning Models and tailored to the identified category of users;
- **the development of an on-line ADRs notification tool** with the objective of facilitating the work and the comprehension by the health professionals together with a report on Implementation Guidelines issued in October, 10<sup>th</sup>, 2007; a pilot notification system was first established on the basis of the Italian ADR notification scheme and then the software was adapted to the specific requirements of France and Spain;
- a cooperation environment providing on-line, Internet based portal type of services;
- a **Med-ePHV Exploitation Business Plan** issued on March 31<sup>st</sup>, 2009 to make the on-line based e-learning services available for exploitation using a jointly developed and shared application grid;

The project duration was of 24 months then extended of additional 4 months. Scientific and technical results and milestones achievements were made available on the website for dissemination and wider uptake.

### **Main achievements according to Programme objectives**

The expected result in SaS programme was an enhanced interest in scientific culture, education and careers, particularly among young people. The project primary targets for education and training were health professionals across Europe to improve the pharmacovigilance practice. Clearly, an indirect impact on young generations could not be excluded but it was not the core of the project which prioritised the ambition of making European Union an advanced knowledge society, with sustainable development, more and better jobs and greater social cohesion.

### **Main achievements according to SaS Dimensions**

The project was related to the science literacy SaS dimension due to the effort to develop training systems in Europe. Through innovative pilot projects, the Med-ePHV aimed to improve the pharmacovigilance practice for public health. The priority given to education and training aligned with the SaS trends. In line with a mature concept of the dimension, it applied dialogue model where knowledge was not restricted to health practitioners but also directed to other end-users (e.g. SMEs partners) which were involved in the design of the e-learning system through test and validation during the project.

It also contributed to the open access dimension since the training materials developed during the project for e-learning application, could be adaptable for other training methods (e.g. Multimedia interactive CD/DVD, Personal Digital Assistant application (PDA), Residential training in Hospitals, etc.) and was made available for exploitation.



## **DISSEMINATION AND ENGAGEMENT ACTIVITIES AIMED AT TRANSFERRING THE PROJECT RESULTS TO WIDER COMMUNITIES**

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Dissemination of the Med-ePHV project and results in the 3 Member States and at EU level was essential from the beginning of the project. The consortium strategy for promotion and dissemination of the project contents and results combined traditional means of dissemination (e.g. Conferences, articles, posters) with innovative and interactive means (i.e. website) to reach a wide public. Looking at the activities performed across the different work packages, the dissemination means included:

- The Med-ePHV web site ([www.medephv.net](http://www.medephv.net)) representing the point of access to the on-line services. Continuously updated, the website consisted of a public area, with public material concerning the Med-ePHV project, and a private area restricted to project partners and EC officials. It also contained a section dedicated to press releases with clear references to the sources.
- Presentations at Conferences and Workshops in the three target countries during the development phase of the project:
  - FR: Workshop of the working group on vigilance and security of trials in March 2008;
  - IT: Presentation to the responsible people for PHV in Lombardia in May 2007; Congress on "La Sperimentazione Clinica in Italia" in May 2007;
  - ES: Pharmacovigilance Committee Meeting in June 2007; VIII National Pharmacovigilance Meeting in May 2008; XXI Congress of the Spanish Society of Clinical Pharmacology in October 2008.
- Articles (scientific journals, newsletter) by the Consortium Partners to actively present the project in their respective countries (4 articles were published in IT and 1 in ES).
- At EU level, partnerships with organisations/institutions were initiated to obtain a wider coverage and visibility within the pharmacovigilance sector.

The Dissemination actions planned to be undertaken during the initial exploitation phase of the project (after 31 December 2008) included mainly direct mailings of information about the finalised Med-ePHV tool/set-up of web links to the Med-ePHV website across the European Mediterranean countries.

The dissemination and promotion strategy was not fully implemented and the level of accomplishment was reported as equal to 90%.<sup>141</sup> That was essentially due to the reduced activity by the French SME partner (mainly caused by the lack of support to the action) and the postponement large Med-ePHV communication event in Italy which had been prepared and scheduled in the last quarter of 2008 (due to the sudden loss of the organiser). However, the dissemination of project results was deemed important to contribute to raise the awareness and understanding of pharmacovigilance and to provide easy-to-use solutions to tackle the complexity of its practice across Europe.

## **PROJECT IMPACTS**

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By strengthening EU pharmacovigilance practice, the project was expected to enhance ADRs notification in the involved EU Mediterranean countries (IT, FR, ES). In addition, potential positive impacts were envisioned for end-users of pharmacovigilance services in the market such as: the health practitioners, LHAs and MAHs staff; the pharmaceutical industries and the SMEs that will exploit the eLearning services. Looking at project partners, 2 institutions were in the top 1% of most central organisations in the whole FP meaning that they had long experience in participating to other projects together with other central institutions (betweenness centrality). Their involvement in the project management increased the possibility of having high positive impacts. Furthermore, 2 universities serving as RTD partners in the project were also included in the Leiden ranking for the quality of their outputs.<sup>142</sup>

Based on the outputs, Med-ePHV development had a positive economic impact on participating SMEs due to the right of exploitation of tools for business opportunities beyond the project. Furthermore, through the on-line e-learning system, the project contributed to raise the awareness on safe use of medicines and to facilitate knowledge access against social exclusion. Other project actual impacts could be classified as follows:

- **Scientific impact** there were no reported citations or publications related to the project thus the impact on the scientific community could be assessed as rather low;
- **Social media impact** there was not relevant social impact according to the Social media listening buzz results (near 0);

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<sup>141</sup> MED-EPHV Final Project Activity Report (2009).

<sup>142</sup> The University of Pavia and the University of Valladolid ranked 381 and 484 respectively.



- **Organisational and institutional impact:** The participating SMEs agreed to create a transnational cooperation agreement for distribution of commercial pharmacovigilance services in the EU Mediterranean member states and later on in the associated countries, starting from the pilots developed during the project. In addition, SMEs committed to establish cooperation agreements with the RTD partners for future updates of the e-learning modules, as well as, for training support and for new initiatives in the field of on-line medical education. Post-project cooperation was beneficial also for RTD organisations.
- **Policy impact:** At national level, the project equipped health practitioners in EU countries of the Mediterranean area with innovative tools and services to learn and practice pharmacovigilance.

### PATH-BREAKING ADVANCEMENTS

The Med-ePHV approach used the modelling of the pharmacovigilance practice, to deliver a suite of software solutions and network based integration services to support an efficient ADRs recognition and notification.

### EU ADDED VALUE OF THE PROJECT

At the time of the project, the EU adopted a new pharmaceutical legislation<sup>143</sup> but MS widely differed among each other. Overall, the pharmacovigilance practice lacked expertise in health practitioners and patients at the periphery of public and private health systems and there was no comprehensive pharmacovigilance e-learning service addressing the new EU legislation in the EU Mediterranean countries (FR, IT, ES). The lack of a unified approach and tools added further complexity to the ADRs identification and notification especially in the peripheral edge of the pharmacovigilance systems. Developed in isolation by MS, the pharmacovigilance practice led to poor performances which posed threat to public health. Thus, a joint effort was needed. The project provided value by supporting an efficient EU pharmacovigilance system and internet based on-line e-learning services which could tackle emerging issues (e.g. monitoring of bio terrorism) and support the increasing markets of orphan drugs and bio-medicines.

### PARTICIPANTS AND RESEARCH TEAM

#### Participants

Number of participants: 8

Number of countries involved: 4

	Type	Country	Role	Previous participations to FP
GRUPPO S LAB SRL	IND	IT	Coordinator	1
UNIVERSITY OF VALLADOLLID	HES	ES	Participant	6
TECNOFARMACI - SOCIETA CONSORTILE PER AZIONI - PER LO SVILUPPO DELLA RICERCA FARMACEUTICA	REC	IT	Participant	1
PASTEUR MEDIAVITA	IND	FR	Participant	1
JUNGLE BOX S L	IND	ES	Participant	1
UNIVERSITY OF PAVIA	HES	IT	Participant	1
EUROPEAN FORUM FOR GOOD CLINICAL PRACTICE	OTH	BE	Participant	4
INSTITUT NATIONAL DE LA SANTE ET DE LA RECHERCHE MEDICALE (INSERM)	REC	FR	Participant	2

### DELIVERABLES AND PUBLICATIONS

DELIVERABLE NO.	DELIVERABLE NAME	DUE DATE OF DELIVERY	ACTUAL SUBMISSION DATE:
D01	Kick-off Meeting Report	09.2006	09.2006
D02	Project Presentation	09. 2006	09. 2006

143 Council Regulation No. 726/2004.

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Final Case Studies

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<i>DELIVERABLE NO.</i>	<i>DELIVERABLE NAME</i>	<i>DUE DATE OF DELIVERY</i>	<i>ACTUAL SUBMISSION DATE:</i>
D03	<i>Communication based project control and reporting system</i>	<i>11. 2006</i>	<i>11. 2006</i>
D04	<i>Project Intranet and cooperation tools</i>	<i>11. 2006</i>	<i>11. 2006</i>
D05	<i>Project Master Document (PMD)</i>	<i>11. 2007</i>	<i>11. 2007</i>
D06	<i>Project Steering Committee Meeting Report</i>	<i>02.2007</i>	<i>02.2007</i>
D07	<i>Report on business process requirements</i>	<i>04. 2007</i>	<i>04. 2007</i>
D08	<i>Demonstration of Med-ePHV web site</i>	<i>01. 2008</i>	<i>01. 2008</i>
D09	<i>Report on reference and specific cognitive models</i>	<i>08. 2009</i>	<i>08. 2009</i>
D10	<i>Report on Med-ePHV Learning Models</i>	<i>10. 2007</i>	<i>10. 2007</i>
D11	<i>Report on Med-ePHV notification and recognition</i>	<i>10. 2007</i>	<i>10. 2007</i>
D12	<i>Project Steering Committee Meeting Report</i>	<i>08. 2007</i>	<i>08. 2007</i>
D13	<i>Report on implementation guidelines</i>	<i>10.2007</i>	<i>10.2007</i>
D14	<i>Med-ePHV Plan for using and disseminating knowledge</i>	<i>11.2007</i>	<i>11.2007</i>
D15	<i>Design of the software for ADR notification and recognition</i>	<i>04. 2008</i>	<i>04. 2008</i>
D16	<i>Med-ePHV Pilot e-learning Software</i>	<i>04. 2008</i>	<i>04. 2008</i>
D17	<i>Project Steering Committee Meeting Report</i>	<i>02.2008</i>	<i>02.2008</i>
D18	<i>Report on Med-ePHV Grid Architecture and Resources Integration</i>	<i>07. 2008</i>	<i>07. 2008</i>
D19	<i>Pilot ADRs Notification-Recognition Software</i>	<i>11.2008</i>	<i>11.2008</i>
D20	<i>Report on the Med-ePHV e-learning Pilot</i>	<i>11.2008</i>	<i>11.2008</i>
D21	<i>Report on Web Services and User Interface</i>	<i>02.2009</i>	<i>02.2009</i>
D22	<i>Med-ePHV Plan for using and disseminating knowledge</i>	<i>03. 2009</i>	<i>03. 2009</i>
D23	<i>Project Steering Committee Meeting Report</i>	<i>11. 2008</i>	<i>11. 2008</i>
D24	<i>Report on Testing and Validation addressing the three levels of target end-users</i>	<i>03. 2009</i>	<i>03. 2009</i>
D25	<i>Report on Med-ePHV web site contents</i>	<i>03. 2009</i>	<i>03. 2009</i>
D26	<i>Final Plan for using and disseminating knowledge</i>	<i>03. 2009</i>	<i>03. 2009</i>
D27	<i>Report on IPR management and copyright application</i>	<i>03. 2009</i>	<i>03. 2009</i>

**MAIN SOURCES**

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MED-EPHV PROJECT Final Project Activity Report (2009).

## **TRAINING OF YOUNG SCANBALT LSH SCIENTISTS IN PROJECT AND INNOVATION MANAGEMENT AND ECONOMIC EXPLOITATION - "TRAYSS PRIME"**

**Framework Programme: FP6 related to SAS**

**Dimension: Science literacy**

**Tool: Specific Support Actions**

**Project Call For Proposal: FP6-2005-LIFESCIHEALTH-6**

**Status: -**

**Total cost: € 273 576.00**

**Total EU funding: € 246 576.00**

**Website: <http://www.scanbalt.org/projects/finalised+projects/trayss+prime>**

**Period: 01/01/2007 - 30/06/2008**

**Subjects: Biotechnology - Life Sciences - Medicine and Health - Scientific Research**

**Project ID and Acronym: ID: 37379, Acronym: TRAYSS PRIME**

### **BACKGROUND AND CONTEXT OF THE PROJECT AND STRATEGIC NEEDS**

Life sciences and biotechnology are widely recognised to be a critical component of the knowledge-based economy, and will therefore become a major contributor to achieving the European Community's Lisbon Summit's objective of becoming a leading knowledge-based economy. This type of economy needs to lead to the emergence of new enterprises (small companies) that are able to match scientific and engineering knowledge with entrepreneurial management skills. On the other hand, young scientists are ill prepared to manage research projects, acquire research funds and manage teams that are often of an intercultural character. This type of skills are not taught within a science curricula or independently sought by young researcher. They are however essential for effective and goal oriented research projects like the ones funded under FP7, and for the effective exploitation of the sector to achieve a knowledge-based economy. It is essential to have the capacity to translate knowledge into new products, processes and services that in turn will generate benefits to society, skilled jobs and prosperity; but it is also essential that scientists (especially young scientists) working in public research institutions are able to manage and acquire intellectual property rights or the possibilities for the economic exploitation of their results.

The objective of TRAYSS PRIME is therefore to raise awareness among young scientists from the Baltic Sea Region (in the field of Life Science, Biotechnology and Health Research) of the opportunities and challenges of managing and commercializing research results, as well as the potential from international cooperation and EU funding within FP7. It also aims at providing them with the opportunity to get an introduction to project management skills, to enable them to use modern and state-of-the-art management tools, as well as to encourage them to start international cooperation by introducing them to the possibilities of the ERA, providing the opportunity to meet potential partners and making the task of applying for European research funds seem less daunting by providing an introduction to the application process.

### **SPECIFIC PROJECT OBJECTIVES**

As mentioned above, the overall objective of TRAYSS PRIME is to provide young scientists in the field of Life Science, Biotechnology and Health Research with the opportunity to develop managerial skills, and to meet potential partners for future international cooperation funded by European research funds. To achieve this, the project set the following specific objectives:

- Organize two-day workshops on the topics of IPR and Innovation Management, Research and Project Management, and European funding and proposal writing. The workshops will be held as satellites to large conferences and trade fairs. As part of the workshops, there would be a specific one integrating a "best practice" example by inviting a successful biotechnology SME from the respective region of the event;
- Organize a summer school covering all three subjects so participants can gain additional insight, refresh the knowledge they acquired in the workshop and contact other participants. During the summer school, the aspect of SME interaction with the young researchers will be intensified by an afternoon event including short reports from regional SMEs and a discussion forum. A second discussion on scientific ethics will also be led by an expert lecturer.
- Set-up a virtual platform that will include a web based forum, a newsletter and a website. The aim is to continue building knowledge networks to create active participation and knowledge creation instead of (passive) reception of information.

The project objectives also contributed to overarching programme objectives, in particular those related to ERA. The project team is aware that the training they will provide to young scientists will benefit EU research by moving science and innovation closer together and creating a new network of able commercially minded young scientists.

The focus of the training on the commercial exploitation of research and not only on the management of research projects themselves evidences its alignment to the Innovation Union Flagship Initiative. This last one is seeking to transform great ideas into products and services that in return contribute to growth and jobs in Europe. One important way of achieving this is by having research results transform into commercially viable products and services. This step can represent a challenge for researchers and scientists, for this reason, the skills learned via the training can help them reach the transformation and finally be able to exploit commercially the results of their scientific work.”

## **PROJECT RESULTS AND OUTCOMES**

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### **Main achievement according to Project objectives**

The main achievement of the project was training 262 young scientists in one or more of the following topics:

- Scientific project management,
- Commercial exploitation and IP management in biotechnology,
- Management of EU FP7 applications.

Duration of the project was 18 months and all work packages were implemented successfully. Main results and outcomes were:

- Preparation, implementation and post processing of **four interactive and hands-on workshops** in the field of EU FP7 application management (FP7/Cooperation) in Hamburg, Copenhagen, Gdansk and Turku,
- Preparation, implementation and post processing of **two interactive and hands-on workshops** in the field of research project management in Lapino/Gdansk and Berlin,
- Preparation, implementation and post processing of **two interactive and hands-on workshops** in the field of commercial exploitation in Cracow and Copenhagen,
- Preparation, implementation and post processing of a **one-week summer school** in Erkner/Berlin that has covered all three topics plus bioethics, time management and conflict management,
- Organization and implementation of **excursions** to the pharma company Bayer-Schering AG and the German Parliament as integral part of the spring school,
- Creation of a **virtual platform** which included a web based forum, a newsletter and a website.

The project achievements met the expected results. Even two additional workshops were carried out (8 were performed instead of 6 as originally planned).

### **Main achievements according to Programme objectives.**

The TRAYSS PRIME project was in line with one of FP6's main activities: 4.3.4 Scientific and technological culture, young people, science education and careers. More concretely, it contributed to the promotion of science and scientific culture among young people; and it promoted young people's interest in science, enhancing science education and monitoring scientific careers.

### **Main achievements according to SaS Dimensions**

The results of the project are in line with the Science Literacy dimension of SiS SaS, particularly with the promotion of young people's interest in science, including developing a carrier in science. The 262 young researchers that were trained in management of research projects, commercial exploitation and IP management in biotechnology, and management of EU FP7 applications; are better prepared to search and obtain funding for their work and with it, have the opportunity to continue to develop their carriers in science. This also helped reinforce the links between science education and science carrier, another important element of the Science Literacy dimension. Finally, as the focus was on young researchers already part of a higher education body, the project also strengthen the competitiveness and attractiveness of the European higher education.

## **DISSEMINATION AND ENGAGEMENT ACTIVITIES AIMED AT TRANSFERRING THE PROJECT RESULTS TO WIDER COMMUNITIES**

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The TRAYSS PRIME website was their main tool for disseminating results. It was set-up as a sub-site to [www.scanbalt.org](http://www.scanbalt.org) and included an introduction to the project, information about the training workshops and the spring school, news and announcements on the project, contact information to the project partners and a possibility to sign up for the TRAYSS PRIME news-list (at the end of the project 172 addresses were part of the list. Recipients received invitation to all workshops and courses), the possibility to register for courses by a web-form and login and downloading the course material before the training. The website was often updated many times per week to keep content up to date.

The final activity report mentions that the TRAYSS PRIME website had around ~33.000 visitors in the period 1 January 2007– 30 June 2008. Evidence that the project was highly disseminated within the region (Baltic Sea).

Other forms of dissemination included:

- 10 press releases have been published during the project duration. All except one have been distributed through IDW, Alpha Galileo, Cordis and Baltic News Service.
- The Press releases generated ~50 articles during the whole project duration in media around Europe, according to Metlwater News. Special press invitations resulted in 2 articles one in "Science Careers" and one in "Cell".

The scanblat website is still functioning, although no evidence of the TRAYSS PRIME project is available at present.

## PROJECT IMPACTS

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The TRAYSS PRIME project was expected to create a network of able commercially minded young scientists in the field of Life Science, Biotechnology and Health Research through training actions and networking opportunities. They focus mainly on developing their skills in project management, commercial exploitation and IP management in biotechnology, and management of EU FP7 applications. Participants were MSc students and PhD candidates, postdocs and young group leaders, and scientists at the first stage of their career. As a consequence, the project activities equipped them with the tools necessary to work in successful international research projects and to apply for European funding

Beyond expectations, the TRAYSS PRIME project impacts can be classified into:

- **Potential impact** Two of the three organisations that were part of the Consortium structure of this project are in the top 10% of the most central organisations in the overall FP network. We can conclude a standard level of centrality in the overall FP network and thus is likely to diffuse and spread information and knowledge and to have an impact. However, this project was mostly regionally focused, so perhaps higher impact can be identified in the Baltic Sea Region.

As for business and scientific attractiveness, no references were identified.

- **Actual impact** as resulting from the project documents, impacts can be clustered into four types:
  - **Scientific impact:** No scientific publication related to the project has been released. This is consistent with the aim of the project, which is more operative than scientific: the project aims at providing young researchers with additional skills to seek/manage international cooperation;
  - **Social media impacts:** the project did not produce any relevant buzz results (zero posts on social media have been detected within 2 years after the end of the project). This may be in part due to the technology and social media development at the time of the project implementation;
  - **Institutional and organisational impact** the project documentation mentions the formation of a Top of Europe Research Management Network as part of their future strategy. However, no evidence of achieving this is provided in the project's documentation.
  - **Policy impact** the project promoted the creation of new governance models for research activities by seeking cross-country partnerships. It did not however influence the EU policy debate.

## PATH-BREAKING ADVANCEMENTS

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The establishment of a large group of commercially minded young scientists in the field of Life Science, Biotechnology and Health Research that would drive future research and exploit FP7 funding opportunities was innovative at the time. Managerial skills were lacking among young scientist and the project constituted an attempt to close the gaps. It made use of more classical methods for developing capacity (i.e. trainings/workshop), but it also made innovations by carrying out fieldtrips to the pharma company Bayer-Schering AG and to the German Parliament and its commission on research.

## BEST PRACTICES

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Although the project was successfully implemented, there are no particular best practices to highlight. Based on the project documents, there is no impacts and results beyond the project's objectives.

## EU ADDED VALUE OF THE PROJECT

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Young researchers part of ERA are faced with both the opportunities and challenges of managing and commercializing research results, as well as the potential from international cooperation and EU funding within FP7. They need to be able to commercialize their research, while managing multicultural teams and safeguarding funding for their projects. In order to do so, they need to develop certain type of skills that are not taught at university level but also expensive should they be sought out independently. It would have been unlikely that the young researchers that participated in the project would have had access to the trainings, workshops and other activities offered via the TRAYSS PRIME project had it not been publicly funded by the EC.

## PARTICIPANTS AND RESEARCH TEAM

This section presents some statistics on the project participating organisations and team structure. The figures are compared to average figures per dimension. Main variables include: type, country of origin and previous participation to FPs for both project coordinator and participants.

Sources: project reports and website (when available), project Description of Work, composition analysis, survey, interview, CORDA (EY Delivers/ DG RTD\_SiS SaS FY16 Shared Documents/ eCorda Database/Form/F01projects\_Mainpart\_Ref.)

### Participants

Number of participants: 3

Number of countries involved: 2

	Type	Country	Role	Previous participations to FP
STEINBEIS FORSCHUNGS- UND ENTWICKLUNGSZENTREN GMBH	OTH	DE	Coordinator	1
SCANBALT FMBA	OTH	DK	Participant	2
PROSCIENCIA BERATUNGS-GMBH	OTH	DE	Participant	1

### Team Composition

Team Size: members\*

GENDER				
Female		Male		Unknown
43,0%		57,0%		0,0%
SENIORITY				
Average		Junior		Senior
0%		14,0%		86,0%
PhD				
No			Yes	
86,0%			14,0%	
BACKGROUND				
Applied Sciences	Health Sciences	Humanities & Social Sciences	Natural Sciences	Unknown
0,0%	14,0%	43,0%	29,0%	0,0%

\*The data are based on the analysis of the provided project's Description of Work.

## DELIVERABLES AND PUBLICATIONS

DELIVERABLE NO.	DELIVERABLE NAME	DUE DATE OF DELIVERY (month)	ACTUAL SUBMISSION DATE: (month)
D1.1	Kick-off meeting	February 2007	February 2007
D1.2	Database of conferences and trade fairs	March 2007	July 2007
D1.3	Database of contact data for potential participants and multipliers	April 2007	July 2007
D 1.4	Four short presentations to make the professional audience aware of TRAYSS PRIME seminar topics.	December 2007	November 2007
D 2.1	List of six conferences suitable to integrate the workshops	June 2007	April 2007
D 2.2	Detailed programme for the workshops and list of	August 2007	January 2008

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<i>DELIVERABLE NO.</i>	<i>DELIVERABLE NAME</i>	<i>DUE DATE OF DELIVERY (month)</i>	<i>ACTUAL SUBMISSION DATE: (month)</i>
	<i>external speakers</i>		<i>June 2008 (updated)</i>
<i>D 2.3</i>	<i>Marketing material and workshop materials</i>	<i>August 2007</i>	<i>January 2008</i>
<i>D 2.4</i>	<i>Realization of the workshops</i>	<i>March 2008</i>	<i>June 2008</i>
<i>D 2.5</i>	<i>Evaluation of workshops</i>	<i>April 2008</i>	<i>June 2008</i>
<i>D 3.1</i>	<i>Organisation/programme agreement for the summer school</i>	<i>December 2007</i>	<i>March 2008</i>
<i>D 3.2</i>	<i>Final contracts with accommodating campus/caterer etc.</i>	<i>February 2008</i>	<i>February 2008</i>
<i>D 3.3</i>	<i>Summer school classes, schedule</i>	<i>March 2008</i>	<i>April 2008</i>
<i>D 3.4</i>	<i>Realization of the summer school</i>	<i>May 2008</i>	<i>May 2008</i>
<i>D 3.5</i>	<i>Evaluation of the summer school</i>	<i>June 2008</i>	<i>June 2008</i>
<i>D 4.1</i>	<i>Setup project web page under ScanBalt projects' website</i>	<i>February 2007</i>	<i>January 2008</i>
<i>D 4.2</i>	<i>Dissemination of TRAYSS PRIME in media</i>	<i>June 2007 (several)</i>	<i>January 2008 (half yearly – several)</i>
<i>D 4.3</i>	<i>Future development and recommendations for TRAYSS PRIME idea continuation</i>	<i>June 2008</i>	<i>June 2008</i>
<i>D 5.1</i>	<i>Partners Consortium Agreement</i>	<i>February 2007</i>	<i>February 2007</i>
<i>D 5.2</i>	<i>Assistance to project partners/Providing EU reports in time</i>	<i>September 2007 (several)</i>	<i>September 2007 (several)</i>
<i>D 5.3</i>	<i>Status and progress reports to European</i>	<i>June 2007 December 2007 June 2008</i>	<i>June 2007 December 2007</i>

### **MAIN SOURCES**

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It presents the main sources used for the analysis

TRAYSS PRIME Consortium - Annex I - "Description of Work

TRAYSS PRIME Consortium – Periodic Activity Report (January 2006 to December 2007)

TRAYSS PRIME Consortium – Periodic Management Report (January 2007 to December 2007)

TRAYSS PRIME Consortium – Periodic Activity and Management Report (January to June 2008)

TRAYSS PRIME Consortium – Final Activity Report



## **DEVELOPMENT OF RESEARCH MANAGEMENT TRAINING FOR DOCTORAL RESEARCH STUDENTS "REMAT"**

**Framework Programme: FP6**  
**Dimension: Science Literacy**  
**Tool: Specific Support Actions**  
**Project Call For Proposal: FP6-2005-LIFESCIHEALTH-6**  
**Status: -**  
**Total cost: € 432 658.00**  
**Total EU funding: € 432 658.00**  
**Website: <http://remat.tuttech.eu/>**  
**Period: 01/01/2007 - 31/12/2008**  
**Subjects: Biotechnology - Life Sciences - Medicine and Health - Scientific Research**  
**Project ID and Acronym: ID: 37504, Acronym: REMAT**

### **BACKGROUND AND CONTEXT OF THE PROJECT AND STRATEGIC NEEDS**

Students progressing from first-degree to research degree level are often disadvantaged in EU projects involving industry-research partnerships. Unlike their young industrial counterparts, Ph.D. students have very little access to good quality management training, or have not been provided with good complementary training in soft skills. Although some research organisations now provide training, many research institutions in Europe do not include management training as a standard part of their Ph.D. curricula. In addition, since these topics are not systematically addressed, many senior researchers are not necessarily well enough informed to be able to teach them. This means that also peer-to-peer transfer of knowledge is not always reliable. A third issue lies on the fact that even though research management training may well be established in the university systems of some EU Member States, it often relates only to the national research systems. ReMaT is therefore aiming to provide training to Ph.D. students in topics which need to be addressed at a European level and which reflect their needs in order to enable them to participate fully in European projects.

### **SPECIFIC PROJECT OBJECTIVES**

The ReMaT aims to provide better access to practical research management training for the next generation of scientists by developing and establishing training courses suitable for the needs of doctoral students.

The key specific objectives of ReMaT were:

- To develop a programme of research and project management training with six different course modules on topics tailored to the needs of young European research Ph.D. students working on international projects
- To deliver a pilot series of four training workshops; which will be used to assess the effectiveness of the developed training programme and also permit young researchers to extend their networks of personal contacts
- To organize two focus group workshops with trainers
- To carry out a best-practice workshop on young researcher management training conference for research organisations (target group are typically the heads of Ph.D. programmes at the different European universities and research institutes)
- To provide information highlighting opportunities for training around Europe relevant to the needs of academic researchers using existing dissemination channels.

### **SaS/SiS Programme objectives/Activity Lines**

The project objectives are also very much in line with the overarching programme objectives (FP6), in particular those related to stimulating young people's interest in science and increasing the attractiveness of scientific careers. The project team is also aware of the larger policy objectives of the European Union, such as the Lisbon Agenda, the Barcelona target and the Bologna process. In short, they are aware that the effective, results-oriented training they will provide to young researchers will help them develop an understanding of the soft skills they will need to fund, manage and disseminate research projects. In particular, they will gain a view on the funds available to them (both private and public), an awareness of the skills needed to manage international/multidisciplinary projects, and a foundation to commercially exploit their research. It prepares them for the next-step after their studies so they can have a viable but also valuable (for society and the overall development of the EU economy) scientific career. Thanks to this, we can also see an alignment to the Innovation Union Flagship Initiative, whose aim is to ensure that new knowledge-intensive products and services contribute substantially to growth and jobs in Europe.



## PROJECT RESULTS AND OUTCOMES

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- The main achievement according to **project objectives** was the training of 126 young research students in biosciences, representing 27 nationalities from 58 different institutions.
- All work packages were implemented successfully, including 5 pilot workshops, 2 focus groups and an integration of the ReMaT workshop at the Graduate School programme at the University Paul Sabatier in Toulouse.

### Main achievements according to Programme objectives

The TRAYSS PRIME project was in line with one of FP6's main activities: 4.3.4 Scientific and technological culture, young people, science education and careers. More concretely, it contributed to the promotion of science and scientific culture among young people; and it promoted young people's interest in science, enhancing science education and monitoring scientific careers.

### Main achievements according to SaS Dimensions

The results of the project are in line with the Science Literacy dimension of SiS SaS, particularly with the promotion of young people's interest in science, including developing a carrier in science. The 126 young researchers that were trained are better prepared to search and obtain funding for their work and manage the project. With this increased knowledge they have the opportunity to continue to develop their carriers in science. The training also helped them understand the different contexts in which research operates, mainly from academia to industry, from fundamental to applied research; reinforcing links between science education and science careers, another important element of the Science Literacy dimension. Finally, as the focus was on young researchers already part of a higher education body, the project also strengthen the competitiveness and attractiveness of the European higher education.

## DISSEMINATION AND ENGAGEMENT ACTIVITIES AIMED AT TRANSFERRING THE PROJECT RESULTS TO WIDER COMMUNITIES

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The dissemination of the project was mainly performed via the ReMaT website (still active) and the Ph.D. candidates themselves. This later ones passed around the announcement of the workshops on their own initiative and recommended the workshop to their colleagues.

## PROJECT IMPACTS

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The ReMaT project intended to be a compact form of research management training for PhD students and early-career researchers in order to address the need for complementary skills training in doctoral education. It also focused on young scientist studying for research degrees in the biosciences. It aimed at giving participants:

- An understanding of the different contexts in which research operates – from academia to industry, from fundamental to applied research
- An awareness of the skills needed to manage international, multidisciplinary research projects
- Knowledge of how to fund research, from the EC as well as from private-sector funding bodies
- A foundation in the specific skills needed to fund, manage, disseminate and commercially exploit their scientific research throughout their career
- Opportunities for international networking

### Potential impact

One of the three organisations that were part of the Consortium structure of this project are in the top 1% of the most central organisations in the overall FP network, and an additional organisation is on the top 10%. We can conclude a high level of centrality in the overall FP network and thus very likely to diffuse and spread information and knowledge and to have an impact.

As for scientific attractiveness, one of the organisations (University of Oxford) is ranked 29<sup>th</sup>, which also evidences high impact. For business attractiveness, no references were identified.

This is further evidenced by the fact that the project website is still operational, announcing the performance of workshops and trainings still today (ReMaT Workshop – 19 & 20 September 2016 in Hamburg).

**Actual impact** as resulting from the project documents and/or commented during the interviews with project coordinators. Impacts can be clustered into four types:

- **Scientific impact** No scientific publication related to the project has been released. This is consistent with the aim of the project, which is more operative than scientific: the project aims at providing young researchers with additional skills to seek/manage/disseminate scientific research;

- **Social Media impacts** in social media the project did not produce a strong buzz. There were only 24 posts detected within 2 years after the end of the project.
- **Institutional and organisational impact** the project has survived it's completion and it currently continues to provide training to PhD students and young researchers. Institutions interested in hosting a workshop can reach out to the ReMaT team. The workshops/training is offered as an in-house course to universities, research institutions and graduate schools on demand on a cost-covering basis.
- **Policy impact** the project promoted the creation of new governance models for research activities by opening the debate on including "scientific research management" as part of the curricula of a PhD. It did not however influence the EU policy debate.

### PATH-BREAKING ADVANCEMENTS

It is the view of the consultant that the development of the ReMaT concept (a compact form of research management training) was and continuous to be innovative. The compact nature of the training results in a flexible model that can be easily replicated. On the other hand, its focus on very specific but key/targeted skills, has a higher chance of helping young researchers consolidate a carrier in science.

### BEST PRACTICES

It is the view of the consultant that the approach for the implementation of the project can be considered as a best practice example. It included a significant amount of review and feedback loops, providing the opportunity to fine-tune the training material and methods. However, what was unique was the involvement of a High-Level Expert Group in order to assess the results of the project once it had concluded. It was conformed of a mix of heads of organisations concerned with the development of doctoral education, representatives of the European Commission, representatives of industry involved in recruiting academic staff and two PHD candidates that participated in the workshops. This comprehensive group of people provided feedback and recommendations that looked beyond the implementation of the project itself but rather at its survival. Since the start of the ReMaT project, there was special attention on how to make this compact form of research management training successful in future, beyond the project itself and its original funding.

### EU ADDED VALUE OF THE PROJECT

Young researchers' part of ERA are faced with both the opportunities and challenges of consolidating funding, managing international projects, commercializing their research results, or simply migrating from academia to industry. On the other hand, the necessary managerial skills to support them in their growth and consolidation of research careers is not being systematically provided as part of PhD curricula. They also have little time or limited resources to acquire this training on their own; and sometimes even relevant trainers are not easy to find. For this reason, the compact and cost-covering basis of the workshops delivered under the ReMaT project provided young researchers with the opportunity to gain this skills at a reasonable price and for an acceptable amount of time. It is unlikely they would have received such training had the project not been publicly funded by the EC.

### PARTICIPANTS AND RESEARCH TEAM

This section presents some statistics on the project participating organisations and team structure. The figures are compared to average figures per dimension. Main variables include: type, country of origin and previous participation to FPs for both project coordinator and participants.

Sources: project reports and website (when available), project Description of Work, composition analysis, survey, interview, CORDA

#### Participants

Number of participants:3

Number of countries involved:2

	Type	Country	Role	Previous participations in FP
HERRMANN VON HELMHOLTZ-GEMEINSCHAFT DEUTSCHER FORSCHUNGSZENTREN E.V	REC	DE	Coordinator	1
THE CHANCELLOR, MASTERS AND SCHOLARS OF THE UNIVERSITY OF OXFORD	HES	GB	Participant	1

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	Type	Country	Role	Previous participations in FP
TUTECH INNOVATION GMBH	OTH	DE	Participant	4

### Team Composition

Team Size: members\*

GENDER				
Female		Male		Unknown
100,0%		0,0%		0,0%
SENIORITY				
Average		Junior		Senior
0,0%		0,0%		100,0%
PhD				
No			Yes	
67,0%			33,0%	
BACKGROUND				
Applied Sciences	Health Sciences	Humanities & Social Sciences	Natural Sciences	Unknown
0,0%	33,0%	33,0%	0,0%	0,0%

\*The data are based on the analysis of the provided project's Description of Work.

### DELIVERABLES AND PUBLICATIONS

DELIVERABLE NO.	DELIVERABLE NAME	DUE DATE OF DELIVERY (month)	ACTUAL SUBMISSION DATE: (month)
D 01	Detailed project schedule	January 2007	January 2007
D 02	Training programme definition	March 2007	March 2007
D 03	Project PR materials	June 2007	June 2007
D 04	Training programme modules	September 2007	September 2007
D 05	Initial project website	February 2007	February 2007
D 06	Interim project report	December 2007	February 2008
D 07	Training workshops	September 2007	June 2007
D 08	Programme implementation – Case Study	October 2008	November 2008
D 09	Best-practice conference	November 2008	December 2008
D 10	Final project report	December 2008	March 2009 (after extension)
D 11	Feedback Questionnaire	December 2008	March 2009 (after extension)

### MAIN SOURCES

ReMaT (2006) – Management Report 2<sup>nd</sup> Period  
 ReMaT (2008) – Programme Implementation-case study (Deliverable 08)  
 ReMaT (2008) – Evaluation Feedback Questionnaire (Deliverable 11)  
 ReMaT (2008) – Project Activity Report 2<sup>nd</sup> Period  
 ReMaT (2008) – Final report  
 ReMaT (2008) – Publishable Summary Report  
 ReMaT (2008) – Persons-Months Status Table 2<sup>nd</sup> Period 25.03.09  
 ReMaT (2008) – Report Distribution  
 ReMaT (2007) – Annex I – “Description of Work  
 ReMaT (2007) – Management Report 1<sup>st</sup> Period

ReMaT (2007) – Project Complementary Activity Report 1<sup>st</sup> Period  
ReMaT (2007) – Oxford Form  
ReMaT (2007) – Form C – Partner 1  
ReMaT (2007) – Form C – Partner 3  
ReMaT (2007) – Summary Financial Report 1<sup>st</sup> Period

## **TRAINING PROGRAMME ON INTERNATIONAL RESEARCH PROJECT DEVELOPMENT AND MANAGEMENT FOR YOUNG SCIENTISTS FROM THE ACADEMY OF SCIENCES OF ALBANIA (ASA)" TRAINASA"**

**Framework Programme: FP6 related to SAS**  
**Dimension: Science literacy**  
**Tool: Specific Support Actions**  
**Project Call For Proposal: FP6-2005-INCO-WBC/SSA-3**  
**Status: -**  
**Total cost: €136 000.00**  
**Total EU funding: €136 000.00**  
**Website: - (the link - <http://www.trainasa.org/> - does not work anymore)**  
**Period: 01/05/2007 – 30/04/2009**  
**Subjects: -**  
**Project ID and Acronym: ID: INCO-CT-2007-043848, Acronym: TRAINASA**

### **BACKGROUND AND CONTEXT OF THE PROJECT AND STRATEGIC NEEDS**

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Albania's Academia had major research barriers, mainly the low number of interesting scientific opportunities for younger Ph.D./post-doctoral researchers, as well as the depressingly low participation in specific thematic priorities under Community Programmes. On the other hand, when the Stabilisation and Association Agreement was signed, this provided the possibility to enter the European Research Area. This potential was in particular an advantage for the research staff of ASA (The Academy of Sciences of Albania, focusing mainly on specific scientific topics like hydrometeorology, nuclear physics and seismology; with a high number of qualified members). However, young researchers lacked any knowledge on how to implement research projects in an international environment. Having been completely isolated for decades, they were unaware of what was necessary to work together with other European scientists and researchers.

### **SPECIFIC PROJECT OBJECTIVES**

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The overall objective of TRAINASA International Research Training Programme was to encourage the participation of young scientists from the Academy of Sciences of Albania (ASA) in international research projects in all fields of natural sciences. It derived from the strategic objective of stabilizing, reinforcing and connecting the Western Balkan Countries (WBC) research potential to the mainstream European research activities. The aim of this project was to make young Albanian scientists more capable to participate in international projects with the following specific objectives:

- Assess the needs of the Albanian and other WBC researchers in order to identify barriers to their EU research project participation;
- Provide the necessary knowledge and skills required for successful research project development and management via interactive training courses and traineeship programmes; and
- Provide international networking opportunities for young researchers via two brokerage events to encourage EU project participation.

All along the description of the specific project objectives, no mention or link is made with the overarching programme objectives and their relevance:

- SaS/SIS Programme objectives /Action lines;
- Innovation Union;
- ERA;
- SAS Action Plan.

### **PROJECT RESULTS AND OUTCOMES**

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#### **Main achievement according to Project objectives**

The main achievement of the project was the consolidation of a solid group of highly-qualified and motivated young ASA researchers, who were able to understand the theoretical and practical aspects of managing international research projects and who became generators of future international ASA initiatives concerning European research activities. Duration of the project was 24 months and almost all work packages were implemented successfully. Only for WP 5, the 'EU research forum' was not established. Main results and outcomes were:

- The **International Research Training Programmes** were organised with over 70 participants from Albanian universities and research institutions in Tirana, Albania 14-18 April, 7-11 July and 8-12 December 2008;
- Six **TRAINASA internships** were organised at the premises of Geonardo Ltd. in June-July, November-December and March-April 2008. Young researchers from the Academy of Sciences of Albania, Agricultural University of Tirana, Polytechnic University of Tirana, and University of Tirana were involved in developing Community Programme proposals, assessment, result analyses, management activities and report writing by assisting senior project managers
- Two **brokerage events** were organised 25 March 2009 in Budapest, Hungary with co-operation of the RESBOAT (FP6) project and 27 April 2009 in Tirana, Albania. More than 100 participants became familiar with the structure and opportunities of the Seventh Framework Programme (FP7), expressed their organisations' interest in research project participation and presented their project ideas.
- The project website ([www.trainasa.org](http://www.trainasa.org)) was launched and updated to provide information on the project's results.
- Four editions of the TRAINASA newsletter and posters were prepared and disseminated to the target groups. The project brochures were prepared and distributed at different national and international conferences and events.

Overall, the project achievements met the expected results.

#### **Main achievements according to Programme objectives**

The project contributed to stabilize, reinforce and connect the Western Balkan Countries (WBC) research potential to the mainstream European research activities. This is very much in line with the stated objective of FP6-INCO - Specific activities covering wider field of research under the Focusing and Integrating Community Research programme 2002-2006 (FP6-INCO), whose aim was to help open up the European Research Area to the rest of the world.

#### **Main achievements according to SaS Dimensions**

The results of the project are very much in line with the Science Literacy dimension of SiS SaS, particularly with the promotion of young people's interest in science, including developing a carrier in science. The 70 young researchers that were trained on how to manage international projects, are now better prepared to search and obtain funding for their work and with it, have the opportunity to continue to develop their carriers in science. This also helped reinforce the links between science education and science carrier, another important element of the Science Literacy dimension. Finally, as the focus was on young researchers already part of a higher education body, the project also strengthen the competitiveness and attractiveness of the European higher education.

#### **DISSEMINATION AND ENGAGEMENT ACTIVITIES AIMED AT TRANSFERRING THE PROJECT RESULTS TO WIDER COMMUNITIES**

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It was of strong interest to the TRAINASA project and its partners to disseminate its ideas and results to a community as wide as possible – although being focused on the young researchers of natural sciences from the ASA. On the other hand, as the project outcome was of generic value and could be applied to other research communities, additional disseminations were performed to reach other Western Balkan Countries. The foreseen dissemination methods included: IT (project website, e-newsletters and direct e-mailing); mass media (e.g. TV, articles/press releases on relevant websites); project presentations at international conferences and events, and distribution of leaflets/brochures.

By type, the dissemination means included:

- **IT:** The project website ([www.trainasa.org](http://www.trainasa.org)) was launched in August 2007 and four TRAINASA newsletters targeting WBC researchers were sent. The main dissemination outputs were the training material and the list of Albanian universities and project ideas interested in European research projects. Both were freely available at the project website. A third effort was done via direct e-mailing by using the ASA network (1.100 emails were sent with this purpose);
- **Mass Media:** The results were spread locally via 4 TV interviews carried-out in Albania. There was also a press release in 8 websites of Albanian universities and institutions, and articles on 13 additional related websites.
- **Conferences/events:** The project was also presented in 15 international conferences and events during 2008. Locations included Spain, Bulgaria, Hungary, FYROM and Albania
- **Printed information:** The leaflets/brochures of the project were distributed in several institutions like Polytechnic University, faculty of Natural Sciences (University of Tirana), University of Shkodra, University of Vlora, Center for Geo-science studies and others.

The dissemination activities included mainly the project deliverables, as they were meant to be “knowledge sharing” driven; but before these were finalized, a good amount of activities were dedicated to provide information on and promote the trainings, traineeships and brokerage events. Finally, dissemination actions were also an important interactive interface for the project for getting continuous feedback on ideas/training material.

## PROJECT IMPACTS

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The TRAINASA project was expected to improve young researchers’ situation in Albania through training actions and networking opportunities in order to prepare them for and grant them access to the numerous opportunities present to them via their entrance to the European Research Area. As a consequence, the project activities would have provided them with the necessary tools and knowledge so they could independently seek and consolidate cross-country cooperation with other research institutions/partners.

Beyond expectations, the TRAINASA project impacts can be classified into:

- **Potential impact** Only one of the two organisations that were part of the Consortium structure of this project are in the top 10% of the most central organisations in the overall FP network. We can conclude it does not constitute a particularly high level of centrality in the overall FP network and thus are not likely to widely diffuse and spread information and knowledge and to have a high impact;
- **Actual impact** as resulting from the project documents, impacts can be clustered into four types:
  - **Scientific impact:** No scientific publication related to the project has been released. This is consistent with the aim of the project, which is more operative than scientific: the project aims at providing young researchers with concrete support (information, networking, knowledge) to their career;
  - **Social media impacts:** the training material and other project documents were uploaded to a public website where additional researchers could consult and make use of it, however, there is no evidence in the project documentation revised of any new event related to the project once all activities were performed. Currently the website is unavailable. Only the participants will act as agents further promoting the concepts of the seminars. Moreover, the networking enabled by the project may result in further cooperation and experience exchange;
  - **Concerning the social media listening,** the project did not produce any relevant buzz results (zero posts on social media have been detected within 2 years after the end of the project). This may be in part due to the technology and social media development at the time of the project implementation;
  - **Institutional and organisational impact** the project increased the research capacity of the participants, but no *ad-hoc* organization was created after the completion of activities;
  - **Policy impact** the project promoted the creation of new governance models for research activities by seeking cross-country partnerships. It did not however influence the EU policy debate.

## PATH-BREAKING ADVANCEMENTS

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The establishment of a group of highly-qualified and motivated young ASA researchers that would drive future research and exploit the new opportunities available via the introduction of Albania to the European Research Area, was innovative to the country at the time. It made use of more classical methods for developing capacity (i.e. trainings), but it was also the first time researchers participated in networking opportunities via the brokerage events.

## BEST PRACTICES

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Although the project was successfully implemented, there are no particular best practices to highlight. Based on the project documents, there is no impacts and results beyond the project’s objectives.

## EU ADDED VALUE OF THE PROJECT

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The major research barriers the country was facing, particularly the lack of interesting scientific opportunities for young researchers and their little knowledge on how to implement international research projects, suggests that without EU funding, the Albanian Academia would have remained unprepared for the number of opportunities present to them via their entrance to the European Research Area. It would have been unlikely that young researchers would have managed to seek and consolidate cross-country cooperation with other research institutions/partners.

## PARTICIPANTS AND RESEARCH TEAM

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This section presents some statistics on the project participating organisations and team structure. The figures are compared to average figures per dimension. Main variables include: type, country of origin and previous participation to FPs for both project coordinator and participants.

Sources: project reports and website (when available), project Description of Work, composition analysis, survey, interview, CORDA (EY Delivers/ DG RTD\_SiS SaS FY16 Shared Documents/ eCorda Database/Form/F01projects\_Mainpart\_Ref.)

### Participants

Number of participants:2

Number of countries involved:2

	Type	Country	Role	Previous participations to FP
ACADEMY OF SCIENCES OF ALBANIA	REC	AL	Coordinator	1
GEONARDO ENVIRONMENTAL TECHNOLOGIES LTD	IND	HU	Participant	1

### Team Composition

Team Size: members\*

GENDER				
Female		Male		Unknown
SENIORITY				
Average		Junior		Senior
PhD				
No			Yes	
BACKGROUND				
Applied Sciences	Health Sciences	Humanities & Social Sciences	Natural Sciences	Unknown

\*The data are based on the analysis of the provided project's Description of Work.

### DELIVERABLES AND PUBLICATIONS

DELIVERABLE NO.	DELIVERABLE NAME	DUE DATE OF DELIVERY (month)	ACTUAL SUBMISSION DATE: (month)
D1	Preliminary list of selected researchers	May 2007	May 2007
D2	Assessment of ASA needs	August 2007	August 2007
D3	Curriculum for the training courses	December 2007	December 2007
D4	Training course material	December 2007	December 2007
D5	Training course evaluation sheet	February, June, October 2008	April 2007
D6	TRAINASA project website	August 2007	August 2007
D7	'EU research forum'	May 2008	June 2008
D8	Internship reports	December 2008	April 2009
D9	Leaflets, newsletters and brochures	December 2007	December 2007
D10	Minutes of the Kick-off meeting	May 2007	June 2007
D11	Interim and final reports of the TRAINASA project	May 2007 and April 2009	June 2007 and June 2009
D12	Brokerage event proceedings	February, April 2009	April 2009



## **MAIN SOURCES**

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It presents the main sources used for the analysis

- TRAINASA Consortium (2006) - Annex I - "Description of Work
- TRAINASA Consortium (2009) - Publishable Executive Summary
- TRAINASA Consortium (2009) - Publishable results
- TRAINASA Consortium (2009) - Plan for using and disseminating the knowledge
- TRAINASA Consortium (2009) - Publishable Final Activity Report
- TRAINASA Consortium (2009) - Periodic Activity Report II

## Science Literacy: FP7 Related to SiS

## **ENHANCING PUBLIC AWARENESS ON THE RESULTS OF EUROPEAN HEALTH RESEARCH ACTIONS THROUGH TELEVISION MEDIA "HEALTH TV"**

**Framework Programme: FP7 related to SIS**  
**Dimension: science literacy**  
**Tool: Coordination and support action**  
**Project Call For Proposal: FP7-HEALTH-2007-A**  
**Status: Closed**  
**Total cost: € 831 532.00**  
**Total EU funding: € 699 911.00**  
**Website: N/A**  
**Period: 01/02/2008 - 31/10/2009**  
**Subjects: Information and Media - Life Sciences - Medicine and Health**  
**Project ID and Acronym: 202054 HEALTH-TV**

### **BACKGROUND AND CONTEXT OF THE PROJECT AND STRATEGIC NEEDS**

The EU-funded research on Health encompasses a large variety of RTD issues and is among the leading-edge European initiatives supporting the implementation of the European strategy on life sciences and biotechnologies. The general public is however largely unaware of the activities carried out by the Health theme and of the benefits, which may derive from the exploitation of the results of this research. The communication of facts, figures and results from the European research is often not of a sufficient dimension and quality to create general awareness on health issues. It is also fragmented or too technical in nature, not suitable for media usage.

The creation of public awareness on health issues should therefore constitute a priority for the Health Theme. The easiest and most efficient way to raise public awareness on such issues in the general public is broadcast media. Unfortunately, audio-visuals are not the preferred dissemination instrument for most part of Health projects (for several reasons), or the standard quality level of audio-visuals produced by projects is often low. They rarely reach a large audience and/or add substantial value to the research carried out by the project they aim to represent.

For all of the above, the strategic objective of HEALTH-TV is to contribute to the development of public awareness on European Health research in all European countries through television media.

### **SPECIFIC PROJECT OBJECTIVES**

To achieve its strategic objective, the following specific objectives were set:

- Enhance and fully exploit the audio-visual TV communication model developed by the project partnership over the past 9 years (the model has been implemented, upgraded, tested and validated by the Commission Services in FP4, FP5 and FP6).
- Exploit the profound knowledge of the EU research Programme in FP5 and FP6 owned by the consortium to identify the key messages of the research on health issues over the past years.
- Create a series of 14 high-quality free-of-rights Video News Releases (VNRs) for the general public on the basis of the key results of the research.
- Include project's audio-visual productions into the [www.youris.com](http://www.youris.com) video portal, managed by the HEALTH-TV partnership, for permanent show, thematic management of resources and archiving.
- Deliver project's audio-visual productions to relevant media and internet services managed by the European Commission.
- Include project's audio-visual productions into the scientific and news TV broadcasting mainstreams of major national TV channels Europe-wide (27 EU Member States).
- Collect actual broadcasts made by European TV stations and include them on a DVD at the end of the project, for future use and exploitation by the project partnership and the Commission Services.
- Monitor the progress of the project and assess its achievements and success, and quantify the overall media impact of the project.

As the main focus of the project was to increase public awareness among average citizens of EU-funded research on Health, it is the consultant's view that it was very much aligned to one of SiS's main objectives: promoting a taste for scientific culture in the public at large. In addition, as the project wanted not only to inform the public but increase their understanding of the activities carried out by the Health theme, and specially the direct benefits that could derive from exploiting research results in this area, the project also addressed the ambiguous feelings expressed by citizens regarding the potential benefits from science and technology, one of SiS's main action lines. We can also highlight its direct correlation with SiS's activities related to better understanding the place of science and technology in society;

and SiS's themes focused on increasing trust in the scientific community and understanding of science. Finally, as the main project output was the making of 14 videos, it also directly responded to SiS's theme on promoting science by audio-visual means.

### **SaS Action Plan**

On the other hand, as the main focus the project placed on achieving public awareness is also very much in line with the SAS Action Plan. In addition, since it provided a positive view on research results, we can also observe a link to the Innovation Union Flagship strategy and it's need to create an innovation-friendly environment.

Finally, as regards the Programme dimension, the project focused on the outcome of FP6 projects under the Health Theme (as FP7 was still to start at the time) to develop the audio-visuals. It used this input to provide the key messages of the research on health issues over the past years.

## **PROJECT RESULTS AND OUTCOMES**

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### **Main achievement according to Project objectives**

The main achievement of the project was the creation of 15 high-quality free-of-rights Video News Releases (VNRs) for the general public on the basis of the key results of the research (FP6).

The videos were also broadcasted in scientific and news TV broadcasting mainstreams of major national TV channels Europe-wide. The HEALTH-TV videos were taken-up and broadcast in 28 countries: Algeria, Belgium, Croatia, Cyprus, Czech Republic, Egypt, Finland, France, Germany, Hong Kong, Ireland, Israel, Lithuania, Malta, the Netherlands, Norway, Panama, Poland, Portugal, Romania, Russia, Serbia, Spain, Switzerland, Turkey, Ukraine, USA, Vietnam plus the pan-European 8-languages TV broadcaster Euronews.

### **Main achievements according to Programme objectives**

The HEALTH-TV project contributed to promoting a taste for scientific culture in the public at large, which is a stated objective in the SiS FP7. It also contributed to increase understanding of the place of science and technology in society, which was stated as one of the main SiS FP7 activities. Through the preparation and dissemination of audio-visual material, the project managed to promote science, another important theme of the Work Programme.

### **Main achievements according to SiS Dimensions**

The results of the project are in line with the Science Literacy dimension of SiS SaS focused on communication, particularly with the aim of increasing public understanding of science. The 15 videos viewed in 28 countries helped people understand the results of research within the Health theme and the benefits that could be derived from it. As this audio-visual material was prepared with the aim to make accessible and easy to understand technological/scientific discoveries, all viewers of this video had potentially the chance to broaden their understanding, retain scientific information and becoming more open to innovation overall. All elements also in line with the SiS SaS dimension.

## **DISSEMINATION AND ENGAGEMENT ACTIVITIES AIMED AT TRANSFERRING THE PROJECT RESULTS TO WIDER COMMUNITIES**

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HEALTH-TV is in itself a dissemination project that makes use of the largest available dissemination platform existing today: broadcast media. However, to ensure its success, it did had to create a dissemination strategy within itself to attract interest from national and regional TV stations. It first carried out direct dissemination by reaching out to commissioning editors, journalists and partner production companies. After, it approached TV stations from different angles, it mainly included:

- The involvement and fidelisation of a number of TV commissioning editors and TV producers for permanent consultation, selected in a number of European countries.
- The consolidation and enlargement of a dynamic lists of TV broadcasters, producers, commissioning editors, freelancers, press and media journalists for dissemination, selected in all EU countries.

As third action, it made use of youris.com portal (jointly owned by the HEALTH-TV partnership). The video portal constituted the only permanent show of all videos developed in the framework of the project and contained a very large number of resources (media and scientific).

Finally, the project designed and engraved a DVD containing all the produced audio-visuals and all supporting documentation (articles, etc.). The DVD became the main distribution instrument towards the following targets and therefore was relevant in the project's dissemination strategy:

- Education players, including national ministries for Health and Education & Culture
- Relevant Fairs and Events organised by the Commission and/or by other stakeholders.
- The Commission Services in the broader sense

- Targeted projects in the Health domain.

The DVD contained the teasers in English language, dubbed in the 5 main EU languages plus a selection of subtitles in other languages (10), upon agreement with the Commission Services. At least 500 copies of the DVD were printed.

## PROJECT IMPACTS

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Beyond expectations, the HEALTH-TV project impacts can be classified into:

- **Potential impact** One of the four organisations that were part of the Consortium structure of this project are in the top 5% of the most central organisations in the overall FP network. We can conclude a standard level of centrality in the overall FP network and thus is likely to diffuse and spread information and knowledge and to have an impact. However, this project was broadcasted in national and regional TV channels in 28 countries, so perhaps higher impact was achieved.

As for business and scientific attractiveness, no references were identified.

- **Actual impact** as resulting from the project documents and/or commented during the interviews with project coordinators. Impacts can be clustered into four types:
  - **Scientific impact:** No scientific publication related to the project has been released. This is consistent with the aim of the project, which is more about communication than science: the project aims at broadcast videos on FP6 funded programmes related to the Health theme;
  - **Social media impacts:** the project did not produce any relevant buzz results (zero posts on social media have been detected within 2 years after the end of the project).
  - **Institutional and organisational impact** the project documentation mentions this is a recurrent project since FP4 and is still broadcasting videos in the above mentioned portal today. It's a structure that has proved its subsistence over time.
  - **Policy impact** the project promoted the creation of new governance models for dissemination of scientific research. There is no mention in the project documentation of the influence it had on EU policy debate, but in light of their mass media focus, seems likely it contributed to the intense debate in the past years on public understanding of science in line with the life-long learning concept supported by the EU.

## PATH-BREAKING ADVANCEMENTS

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The development of 15 videos broadcasted on TV, continuously viewed on a public portal and further disseminated via DVD was innovative at the time. It provided a new way of communicating research results that scientists and other individuals implementing the projects themselves would not have been capable of achieving.

## BEST PRACTICES

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The project continuous to run successfully until today thanks to their communication model, which basically acts as a true "go between" the Commission and the media. In short, it aims to harmonise in a unique, sound media communication strategy the communication needs by the Commission (including key crediting aspects) and the broadcasting requirements by TV stations. It is the consultant's view that this harmonizing effort can be considered a best practice.

## EU ADDED VALUE OF THE PROJECT

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Scientists and researchers are faced with the challenge of communicating their results to the public at large. They also don't hold the interest or needed technical knowledge to produce audio-visual material of good quality. On the other hand, it is also unlikely any one scientist would have sufficient horizontal view on the research being done in ERA to present a harmonized communication strategy across the Health theme. In conclusion, this type of communication activities would have been unlikely had it not been publicly funded by the EC.

## PARTICIPANTS AND RESEARCH TEAM

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This section presents some statistics on the project participating organisations and team structure. The figures are compared to average figures per dimension. Main variables include: type, country of origin and previous participation to FPs for both project coordinator and participants.

Sources: project reports and website (when available), project Description of Work, composition analysis, survey, interview, CORDA

### **DELIVERABLES AND PUBLICATIONS**

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<i>DELIVERABLE NO.</i>	<i>DELIVERABLE NAME</i>	<i>DUE DATE OF DELIVERY (month)</i>	<i>ACTUAL SUBMISSION DATE: (month)</i>
<i>D101</i>	<i>Final Report on Content Provision</i>	<i>Month 9</i>	<i>May 2009</i>
<i>D201</i>	<i>Audiovisual Productions</i>	<i>Month 15</i>	<i>October 2009</i>
<i>D301</i>	<i>Final Report on Broadcasting &amp; Distribution</i>	<i>Month 18</i>	<i>June 2010</i>
<i>D401</i>	<i>Final Report on Monitoring &amp; Assessment</i>	<i>Month 18</i>	<i>June 2010</i>
<i>D402</i>	<i>Broadcasting Examples</i>	<i>Month 18</i>	<i>June 2010</i>
<i>D001</i>	<i>Project Final Report</i>	<i>Month 18 + 2</i>	

### **MAIN SOURCES**

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HEALTH-TV - D101 Final Report on Content Provision  
HEALTH-TV - D201 Audiovisual Productions  
HEALTH-TV - D301 Final Report on Broadcasting & Distribution  
HEALTH-TV - D401 Final Report on Monitoring & Assessment  
HEALTH-TV - D402 Broadcasting Examples  
HEALTH-TV - Internal administrative documentation  
HEALTH-TV - D001 Project Final Report

## **PROFESSIONAL PROMOTION OF ECO-INNOVATIVE RESEARCH RESULTS THROUGH A NEW MEDIA INTEGRATED PLATFORM FOR SMES, RESEARCH AND THE PUBLIC "ECO-PRO"**

**Framework Programme: FP7 related to SIS**  
**Dimension: SCIENCE LITERACY**  
**Tool: Coordination and support action**  
**Project Call For Proposal: FP7-ENV-2011-ECO-INNOVATION-OneStage**  
**Status: Closed**  
**Total cost: € 1 066 592.00**  
**Total EU funding: € 998 920.50**  
**Website: <http://www.innovationseeds.eu/>**  
**Period: 01/09/2011 - 31/08/2013**  
**Subjects: Environmental Protection**  
**Project ID and Acronym: ID: 283111 ACRONYM: ECO-PRO**

### **BACKGROUND AND CONTEXT OF THE PROJECT AND STRATEGIC NEEDS**

Public funded research needs to fully benefit society. This is especially true for environmental and climate research where successful market uptake is particularly urgent. At the end, society can only benefit from research results if these are transferred from laboratory to the markets as licensed technology or newly created company. However, the market uptake for public environmental R&D results remains a challenge. Too few projects under both national and EU funded projects find their way to commercial exploitation. The main barriers are fragmentation of information, inward communication of researchers, lack of market knowledge and innovation management skills and public funding gaps. ECO-PRO seeks to remove some of these barriers and to accelerate market take-up by maximising the potential use value of R&D results through an e-dissemination process addressing their usefulness, usability and applicability for an eco-innovation community.

### **SPECIFIC PROJECT OBJECTIVES**

In this context, the Eco-Pro projects aims to maximise the value of environmental research with an innovative interactive platform: the INNOVATIONSEEDS platform. INNOVATIONSEEDS allows research teams, policy makers, technology providers and users to access and communicate about new eco-innovative technologies and knowledge. Moreover, INNOVATIONSEEDS uses social networking tools to promote and foster a broad-based eco-innovation community.

For the purpose of structuring the ECO-PRO project, its objectives can be broken down into eight sub-objectives:

- To build and establish a dedicated open community involving more than 2,000 eco-innovation stakeholders in an interactive ECO-PRO platform
- To facilitate the access to information about EU funded eco-innovation R&D results by designing and realising a single entry point in form of a portal build around a searchable database for the benefit of the entire eco-innovation community
- To identify the most useful and exploitable public R&D results through extensive screening of at least 200 environmental R&D projects and outputs of the 6th and 7th Framework Programme
- To package 100 R&D results in such a way that they become useable and ready for market take-up and dissemination
- To boost and accelerate the uptake and promotion of eco-innovation R&D results through the design and implementation of state-of-the art innovative knowledge module, which make such results look acceptable to industrial players
- To raise awareness of industry, and particularly SMEs, about the availability and accessibility of EU-funded eco-innovation R&D results aiming at least 1,000 ECO-PRO users per month
- To increase the participation of SMEs in EU-funded research and innovation programmes by providing guidance on eco-innovation funding at EC level
- To prepare the exploitation beyond the end of the project through monitoring and assessment of the dissemination impacts

The project team is aware that INNOVATIONSEEDS contributed to publicise the European Research Area, to raise awareness on specific research themes and to enhance perception and understanding about the European research on Environment. It is also aware that the portal is an instrument to increase transparency of Commission mechanism and

operations related to funding research. However, in the documentation revised, there is no mention or link made with the overarching programme objectives and their relevance :

- SaS/SiS Programme objectives /Action lines;
- Innovation Union;
- SAS Action Plan.

## **PROJECT RESULTS AND OUTCOMES**

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### **Main achievement according to Project objectives**

The main achievement of the project was the creation of the [www.innovationseeds.eu](http://www.innovationseeds.eu) portal. The portal comprised a virtual library (database of research results, at the end of the project it consisted of 106 articles), a funding guide (database of public and private funding opportunities), a research news area (journalists articles), an events area (calendar of future events), a video area (VNRs and webinars) and a community (restricted area that allows users to subscribe to the newsletter and contact the project coordinators). The portal is still active to this day.

### **Main achievement according to Programme objectives**

The ECO-PRO project contributed to promoting a taste for scientific culture in the public at large, which is a stated objective in the SiS FP7. However, it's the consultant's view that the project is more aligned to the strategy and objectives of the **Innovation Union Flagship Initiative**, since it has supported in having great ideas turn into products and services. By maximizing the value of environmental research, the project has supported in the creation of new knowledge-intensive products and services that contribute to growth and jobs in Europe, a key aim of the Innovation Union Flagship Initiative.

### **Main achievements according to SiS Dimensions**

As the central result of the project was the creation of the [www.innovationseeds.eu](http://www.innovationseeds.eu) portal, the consultant can conclude the project mainly aligns to SiS action line related to an effective two-way communication channel. All the content present in the portal was aimed at helping other researchers, SMEs and policy makers have access to the new eco-innovative technologies and knowledge. Any users of the portal have the chance to broaden their understanding, retain scientific information and becoming more open to innovation overall. All elements also in line with the SiS SaS dimension.

The public nature of the portal also supports the achievement of a unified area in which scientific knowledge, technology and researchers circulate freely, as expected in ERA.

## **DISSEMINATION AND ENGAGEMENT ACTIVITIES AIMED AT TRANSFERRING THE PROJECT RESULTS TO WIDER COMMUNITIES**

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ECO-PRO is a science promotion project at the end. The entire INNOVATIONSEEDS initiative is about dissemination in view of better exploitation. The core result of the project is in fact a dissemination portal already on its own, but other activities were also carried out to promote the portal and other project activities. Below a list of the main ones:

- A newsletter was designed in INNOVATIONSEEDS look and distributed to over 2000 contacts. Four newsletter issues were emailed on a monthly basis, starting in April 2013 and ending in July 2013.
- Promoting the community on Twitter. All articles published on the portal were also promoted on INNOVATIONSEEDS's Twitter account. A total of 487 tweeds were published to a total of 155 followers by October 2013
- Promoting the community on LinkedIn. Content from the portal was pushed to potential users via LinkedIn. This was done either through personal contacts or tailor-made content promotion to individuals based on their known personal interest. All articles published on the portal were also promoted on LinkedIn.
- Promotion of the portal. The ECO-PRO project and the [www.innovationseeds.eu](http://www.innovationseeds.eu) portal were promoted during the project lifetime in several events, below a list:
  - Green Week 2012, 25 May 2012, Brussels
  - Info day FP7 ENV, 11 June 2012, Brussels
  - Eco-Clusters conference: Drivers for regional growth & internationalisation, Open Days, 10 October 2012, Brussels
  - G! E General Assembly, 5 December 2012, Brussels
  - European Meeting of R&D&I on water, 28 November 2012, Spain
  - Rencontres Eco-Enterprises 26 March 2013 in Rennes (FR)



- DG R&I Workshop on exploitation and commercialization of research results of multinational consortia, 29 April 2013, Brussels
- ENTSO-E and EDSO4SG workshops, several meetings, spring – summer 2013
- FIDIAS Transnational Expert Workshop 13 June 2013 in Milan
- Kick-off meeting of greenXpo, 26 June 2013, Berlin
- ECOPOL Conference Accelerating eco-innovation policies, Athens, 22-23 October 2013
- DG R&I Joint Kick-Off Meeting for Research Projects on Turning waste into a resource through innovative technologies, processes and services selected under FP7-ENV-2013-two-stage call, 6 November 2013, Brussels

## PROJECT IMPACTS

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Beyond expectations, the ECO-PRO project impacts can be classified into:

- **Potential impact** One of the two organisations that were part of the Consortium structure of this project are in the top 5% of the most central organisations in the overall FP network, and the second one in the top 10%. We can conclude a good level of centrality in the overall FP network and thus is likely to diffuse and spread information and knowledge and to have an impact.  
As for business and scientific attractiveness, no references were identified.
- **Actual impact** as resulting from the project documents and/or commented during the interviews with project coordinators. Impacts can be clustered into four types:
  - **Scientific impact:** No scientific publication related to the project has been released. This is consistent with the aim of the project, which is more about communication than science. The project's main result is the creation of a portal;
  - **Social media impacts:** the project did not produce any relevant buzz results (zero posts on social media have been detected within 2 years after the end of the project);
  - **Institutional and organisational impact** the project succeeded in building a new eco-innovation virtual community. At time of closure, it counted already with 2.000 registered members. The portal is still active today, so we can conclude the community has continue to enlarged and that the proposed structure for the portal has survived the test of time;
  - **Policy impact** the project documentation claims the content present in the portal can inspire policy makers in their tasks and decision making process, there is however no evidence in the documentation revised that this was the case.

## PATH-BREAKING ADVANCEMENTS

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The development of a portal focused only on the communication of research results in the Environment theme was innovative at the time. It provided a new way of communicating research results with the aim to facilitate their transformation into products and services. The researchers and scientists involved in the research itself would not have been capable of achieving a similar communication tool.

## BEST PRACTICES

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The portal is still running to this day and content has been updated. The project team believes this is due to the methodology they have developed, which structures, packages and shares existing publicly-funded R&D knowledge. The methodology can therefore be understood as a best practice.

## EU ADDED VALUE OF THE PROJECT

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Scientists and researchers are faced with the challenge of communicating their results to the public at large and translating them into commercially exploitable products and services. On the other hand, it is difficult for any one scientist to continuously promote and communicate his/her results. In conclusion, this type of communication activities and reach would have been unlikely had it not been publicly funded by the EC.

## PARTICIPANTS AND RESEARCH TEAM

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This section presents some statistics on the project participating organisations and team structure. The figures are compared to average figures per dimension. Main variables include: type, country of origin and previous participation to FPs for both project coordinator and participants.

Sources: project reports and website (when available), project Description of Work, composition analysis, survey, interview, CORDA

### DELIVERABLES AND PUBLICATIONS

DELIVERABLE NO.	DELIVERABLE NAME	DUE DATE OF DELIVERY (month)	ACTUAL SUBMISSION DATE: (month)
D1.1	ECO-PRO database with eco-innovation community stakeholder	September 2013	October 2013
D1.2	Construction of the community component	May 2012	September 2012
D1.3	Regular maintenance of community component	August 2013	August 2013
D 1.4	ECO-PRO promotional material	February 2012	March 2012
D 1.5	Podcast for eco-innovation clusters	August 2012	October 2012
D 1.6	12 presentations at relevant events	August 2013	October 2013
D 1.7	2 on-line votes for the best eco-innovation R&D project website	24	N/A
D 2.1	List of 315 project contacts	November 2012	January 2012
D 2.2	List of 200 results with available information and classification	February 2012	March 2012
D 3.1	Selection of 100 projects for virtual library	April, June and October 2012	November 2012
D 3.2	Virtual library operational and integrated into portal	July 2012	August 2012
D 3.3	Drafting of 100 core articles and related knowledge articles	February 2013	March 2012
D 4.1	Market take-up tactics decided for 100 R&D results	August 2012	October 2012
D 4.2	8-10 webinars	August 2013	August 2013
D 4.3	Production and dissemination of 3 VNRs	August 2013	August 2013
D 4.4	15 technologies brokered during 4 technology brokerage events	August 2013	August 2013
D 4.5	The EU eco-innovation guide	August 2012	August 2012
D 5.1	Portal operational	August 2013	August 2013
D 5.2	Portal maintenance – includes updates of graphic interface	August 2013	August 2013
D 6.1	Comparison of target and actual achievements based on quantitative and qualitative monitoring	April 2013	September 2013
D 6.2	Business plan for the ECO-PRO platform	July 2013	September 2013
D 7.1	3 experts group held	24	N/A

### MAIN SOURCES

ECO-PRO – All project deliverables (except D1.7 and D7.1)

ECO-PRO - DoW - Annex I - "Description of Work"

ECO-PRO - Final Report

ECO-PRO - Final Report - publishable summary

## **ENGAGE AND INSPIRE THE EUROPEAN YOUTH IN THE SPACE EXPLORATION THROUGH A SCIENTIFIC CONTEST – "ODYSSEUS"**

**Framework Programme: FP7 related to SIS**  
**Dimension: SCIENCE LITERACY**  
**Tool: Coordination and support action**  
**Project Call For Proposal: FP7-SPACE-2011-1**  
**Status: Closed**  
**Total cost: 335.510,4**  
**Total EU funding: 299.813**  
**Website: -**  
**Period: 01/11/2011-31/05/2013**  
**Subjects: Scientific Research**  
**Project ID and Acronym: ID: 284442, ACRONYM: ODYSSEUS**

### **BACKGROUND AND CONTEXT OF THE PROJECT AND STRATEGIC NEEDS**

Space exploration has always fascinated the youth minds and it has progressively turned into an area of investment for the EU. Inspiring new generations to science conquer and improving scientific education has become a key priority of European R&D policies and a challenge for the future Europe. At the time of ODYSSEUS, there was a clear need to increase the eagerness of young people to pursue a scientific career after the secondary school and to raise the public awareness on science issues. Space activities represented a good area to test new ways for attracting the attention of the young scientific thinkers. The project proposed to organise a contest to inspire the young people to science and to enhance the concept of collaboration among students, teachers and the community.

### **SPECIFIC PROJECT OBJECTIVES**

The ODYSSEUS project pursued the following specific objectives:

- to inspire and motivate European pupils in scientific education through an innovative and well-designed contest;
- to familiarise with and educate students in intriguing scientific issues, enhancing their eagerness for space exploration;
- to enhance collaboration and educate on its principles the participants in the contest, as the space exploration is a collaborative activity at a global scale;
- to build capacities and develop skills for students with a solving problem approach;
- to create awareness and motivate the community, where school could be the central reference point, in scientific issues;
- to lead to behavioural change for students and the community around them.

To achieve those goals, the project planned to:

- define the concept and the details of the Odysseus Contest providing a blueprint of all the activities;
- demonstrate effective ways for the creation of virtual communities of learners, students, teachers, museum educators and researchers who would be involved in the contest through the project activities;
- develop the dedicated web portal for Odysseus project in order to support effectively and efficiently all project's activities. Odysseus web portal will be the one-entry point for participation in the Contest;
- assess the impact of the Odysseus project, in all aspects and especially regarding its educational and awareness leveraging effect, through a set of quantitative and qualitative metrics.

Project objectives were relevant for:

- **ERA:** promoting access to scientific knowledge from young people lied at the heart of the European Research Area. The project supported the ERA's priority 'Optimal circulation, access to and transfer of scientific knowledge' (point 2.5) by using the project web-portal as a virtual space where knowledge could circulate and be transferred without barriers throughout the whole society.
- **Innovation Union:** ODYSSEUS was in line with the IU objective 'promoting excellence in education and skills development' (point 2.1) as it promoted an interactive and inquiry-based, modern education system in all Member States. The education and dissemination material envisioned by the project aimed at strengthening the knowledge base among students and teachers to build up a scientifically literate society able to fully participate in the research and innovation process.

### **SaS/SiS Programme objectives/Activity Lines**

Despite being only related to SiS, the project contributed to the programme objective of increasing the number of young people from all backgrounds entering careers in science, research and technology and, raising the general level of scientific literacy. Especially, the project was relevant for the area "Supporting formal and informal science education in schools as well as through science centres and museums and other relevant means" (Area 5.2.2.1) as it supported actions aimed at raising the awareness of young people about scientific issues through Inquiry Based Science Education. In fact, the project produced supportive materials for the adoption of the Inquiry Based Science Education (IBSE) teaching approach.

### **SaS Action Plan**

ODY SSEUS was relevant for promoting scientific education and culture in Europe which was a SaS Action Plan objective embedded in the priority "Science education and careers". In fact, the project developed a pedagogical tool to encourage young people to embark on a scientific career and maintain their enthusiasm in line with the efforts of the Plan to improve science education (Actions 11-18).

## **PROJECT RESULTS AND OUTCOMES**

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### **Main achievements according to Project objectives**

The project implementation consisted of two main phases: the first (November 2011 - June 2012) focused on the set-up of the organisational and technical infrastructure of the ODYSSEUS contest; the second (June 2012 - April 2013) dealing with contest and dissemination activities. Against the objectives set, the ODYSSEUS project main achievements could be outlined as follows:

- Set-up of the ODYSSEUS educational contest. The definition of key concepts, scientific and pedagogical contents, contest rules, entries' evaluation procedure as well as all the organisational and administrative arrangements, information and learning material, constituted the foundations for the successful design and implementation of the ODYSSEUS contest; Those were published in the ODYSSEUS website.
- Definition of network and target groups of the project. The project mainly involved the network of national physical societies in Europe and defined a plan for educational courses to integrate the ODYSSEUS contest in their activities as well as suitable ways to engage potential participants to reach a critical mass for enrolment in the contest;
- Design and launch of the ODYSSEUS web portal in 2011 as the 'virtual place', acting as on-line campus. It served as one-entry point and channel to perform all the contest activities and to communicate with the organising committee as well as other contestants. The ODYSSEUS website, provided all information about the project mainly in English while some contest contents (e.g. submission of entries, project worksheet) were translated in all EU official languages and a Google translation function was enabled in all pages. The ODYSSEUS web portal was constantly updated to include the latest contest developments and an internal area was available for project partners.
- Use of quantitative and qualitative metrics, methodologies and impact assessment of the contest to ensure the overall quality.

As a result, a total of 621 students (aged 14–18 years old) and 207 teachers/coaches registered in the contest: 263 teams from 26 countries (20 EU and 6 non-EU) registered during the 1<sup>st</sup> phase; at the end 105 teams from 15 EU countries, plus 13 teams from 3 non-EU countries submitted eligible entries. Therefore, the project succeeded in motivating a relevant fraction of participating students (44.63%) in considering a career in science after the contest (with an increase of 13% compared to percentages upon registration).

### **Main achievements according to Programme objectives**

The SiS programme aimed to attain strengthened links between education (young people and science teachers) and the research community to attract young people to science. Likewise, the project acknowledged the need to actively attract young generations to the world of science. ODYSSEUS contributed to inspire students in space-related scientific issues, by stimulating their creativity, imagination and innovative thinking through a challenging contest. To achieve such goal, the project paid a special attention to the graphic design of the ODYSSEUS portal as it was mainly directed to young people aged 14 to 18. Furthermore, it gave all pupils interested in space, the opportunity to participate in the contest by providing them detailed information and accessible registration tools and resources. Finally, it developed the handbook on career paths illustrating success stories of scientists in the space industry sector and career opportunities in the field. Therefore, the project contributed to demonstrate to students that space was fun and relevant by designing an innovative educational contest with a hands-on science approach.

### **Main achievements according to SiS Dimensions**

ODY SSEUS contributed to the science literacy SiS dimension as it mainly addressed the issue of children education. In line with the major trends of the dimension, the project focused on informal education applying a co-design model where pupils directly and actively engaged in the research procedure adding their creative ideas to their project exploration. In fact, children were asked to design their project so as to deepen their knowledge of scientific concepts

underlying the project's theme. By participating as protagonist in scientific investigations and in project's activities, they gained a critical attitude towards scientific information and knowledge. Due to the hands-on experience and interactive learning tool designed by ODYSSEUS, the project represented a cornerstone in the development of informal science education tools as they were supported by the SiS programme.

Furthermore, the project contributed to the open access and open science dimension of the SiS programme. Through the web portal, the ODYSSEUS project provided easy access and equal opportunities to all students willing to participate across the EU, regardless of the geographical origin. The online publication of the contest contents and the translation of most of the project materials in all EU languages aimed at attracting the widest public to the contest.

### **DISSEMINATION AND ENGAGEMENT ACTIVITIES AIMED AT TRANSFERRING THE PROJECT RESULTS TO WIDER COMMUNITIES**

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Dissemination activities were key to mobilise the interest of the educational communities in the contest. The project elaborated a detailed dissemination strategy combining the ODYSSEUS website and social media (e.g. Facebook, Google Ads, twitter) with a wide range of other tools (e.g. videos, posters, brochures) for a wide outreach. In line with the DoW, the dissemination activities implemented by the project was based on:

- the design of the project logo and of the Odysseus contest site ([www.odysseus-contest.eu](http://www.odysseus-contest.eu)) which was constantly updated and targeted the educational community and the wider public;
- the use of social media: the creation of a Facebook fan page, twitter account and YouTube channel for the Odysseus contest and a Facebook campaign targeting pupils (14-18 years old) with an interest in space or physics;
- a Google AdWords Campaign including themes campaign, Interest – based and You Tube campaigns.
- the production of a promotional video on the Odysseus contest uploaded online, on YouTube and on the Facebook fan page ([http://www.youtube.com/watch?feature=player\\_embedded&v=WkmmzYt-izY](http://www.youtube.com/watch?feature=player_embedded&v=WkmmzYt-izY));
- a project leaflet (in English and Greek); 4 posters (in all EU languages); issues in newsletters, websites, magazines of educational organizations, networks and press releases;
- the "Odysseus Handbook on Career Path in Space" on career paths in space to provide information about jobs and career opportunities in space exploration and examples of experiences of people in space industry to attract students;
- supportive material for educators and the coach-teachers of participating teams. An handbook providing insights on the inquiry based science education (IBSE) teaching approach, as well as, the resources based learning (RBL) teaching methodology to assist teachers in the setting of their lesson plans and in providing guidance to students;
- letters to the Ministries of Education or Ministries of Youth of the 27 EU Member States;
- Networking with space agencies (ESA<sup>144</sup>, DLR<sup>145</sup>, UK Space Agency, CNES<sup>146</sup>) school/educational networks and science associations; direct contacts with scientific and educational organizations for dissemination among their members and stakeholders.

The dissemination activities targeted the whole scientific community (higher education, research), the space industry as well as policy makers and the civil society. As for the degree of achievement, the project dissemination material reached 28 EU countries plus 16 other countries. The audience size ranged from few hundreds in conferences, to more than 3 million users through the project web site and innovative web applications.

### **PROJECT IMPACTS**

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The potential impacts attributed to the implementation of the ODYSSEUS contest were many. Above all, the project was expected to have an **educational and a societal impact** by: giving students the opportunity to work on challenging scientific questions and to familiarize with the activities carried out in national and international space agencies; motivating them to pursue a career in space industry; promoting the collaboration among teachers, students and practicing scientists building on local communities; raising the public awareness on space themes and exploration.

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<sup>144</sup> The European Space Agency (ESA).

<sup>145</sup> German Aerospace Center (DLR).

<sup>146</sup> The Centre national d'études spatiales (CNES).

Looking at project participants, 2 institutions were in the top 10% of the most central organisations in the whole FP (*betweenness centrality*) and thus, their involvement in the consortium increased the potential impacts of the project.

With regard to the **project actual impacts**, the feedback provided by participating students<sup>147</sup> about the contest was highly positive as the vast majority 90,08% enjoyed the experience. Almost all teams appreciated the research process, making experiments and retrieving information. The majority of the students assted that the contest encouraged teamwork, allowed them to use imagination and creativity in investigations and to familiarize themselves with space exploration<sup>148</sup> and even most entries proposed new ideas on future or existing space missions. By working on topics of individual interest in their projects, students also improved their time management, collaboration and inquiry skills. The project also raised public awareness on space exploration as resulted by the small grants or gifts provided as reward to winning teams in local communities. Participating teachers gained contacts with scientists (mostly from local universities and institutes) and the possibility to use the website for other experiments/projects. Additional actual project impacts could be classified as follows:

- **Scientific impact** there were no publications related to the project and no citations in the scientific literature;
- **Social media impact** there was just one post according to the Social media listening buzz collection meaning that the impact was rather low despite the extended use of social media made by the project in the dissemination strategy;
- **Institutional and organisational impact** the project built on communities, promoting and enhancing the collaboration between teachers, students and scientists in an effort to expand the learning environment beyond the borders of the school and the school classroom. Thus, the project created virtual communities but no organisation/network was institutionalised;
- **Policy impact** the project engaged with policy makers in all the communication, dissemination activities on produced results (e.g. the Space EU 2012 Conference, the ODYSSEUS website, press releases) and generated exploitable outputs for education, training, youth and space policies at EU level. The project activities supported the EU effort in developing a Space policy that increases the public awareness of the relevance of space exploration and space-based technologies for the society. For instance, the ODYSSEUS contest delivered many innovative and creative projects that provided a pool of ideas to educational authorities and space agencies for the realisation of future educational or scientific activities about space exploration.

## **PATH-BREAKING ADVANCEMENTS**

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The ODYSSEUS project applied an innovative hands-on science approach to pedagogic and learning practices in EU. The concept and the model of the Odysseus contest itself was new since it served as **pedagogic and awareness-raising tool** for interacting with students, engaging learning communities and for transferring knowledge on science and space exploration in the wider public. Through the inquiry teaching approach, teachers had the opportunity to work more closely with their students and to share good teaching practices and resources for training. A whole community of volunteering teachers and experts on space was involved in the organisation of contest in each country and at EU level. Thus, the project designed an enquiries-solving tool to reach not only students but the whole society.

## **BEST PRACTICES**

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The project laid down the foundations for the EU project ODYSSEUS II which received funding from the European Union's Horizon 2020 research and innovation programme<sup>149</sup>. Under the new programme, ODYSSEUS II has extended the number of participants with the aim to inspire young people from all over Europe and to engage them in space exploration. The project combines scientific learning with hands-on experiences through the organisation of a multi-stage international contest. In line with the previous project, the second edition seeks to foster the international cooperation in promoting space science and technology both among young people and Institutions. After 12 month of duration, it has already created an extensive network of volunteering mentors (i.e. teachers, space industry professionals and experts), educational agencies, academic institutions and space related industries.<sup>150</sup>

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<sup>147</sup> The project impacts were assessed through ex post analysis and surveys among participating students and teachers to gather their views and perspectives.

<sup>148</sup> ODYSSEUS Final Report.

<sup>149</sup> Grant agreement No 640218.

<sup>150</sup> For further information, please refer to the link (<http://www.odysseus-contest.eu/resources/network-of-mentors/>).

## EU ADDED VALUE OF THE PROJECT

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The value of the project lied in the concept of global cooperation applied to educational activities implemented in the space exploration field. As pointed out in the final report, many EU countries had already adopted policies for promoting science education and all national space agencies carried out educational and awareness raising activities. Differently from those activities, the project bridged between communities to establish collaborations among teachers, students and scientists and the wider public to support the contest and space exploration in general. As a result, the project created virtual communities in several countries (e.g. Greece, Romania, Hungary) which could be used to support teachers in professional development and to reduce barriers with their students. Therefore, it demonstrated that the involvement of the whole societal ecosystem supporting schools was essential to attract young people to science and to assist to a behavioural change to scientific issues in the public. In addition, a direct advantage of participating to the project for the coordinator was an enhanced capacity in managing technical infrastructures.

## PARTICIPANTS AND RESEARCH TEAM

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### Participants

Number of participants: 4

Number of countries involved: 4

	Type	Country	Role	Previous participations to FP
<i>SIGNOSIS SRL</i>	<i>PRC</i>	<i>BE</i>	<i>Coordinator</i>	<i>6</i>
<i>STICHTING NOORDWIJK SPACE EXPO</i>	<i>OTH</i>	<i>NL</i>	<i>Participant</i>	<i>1</i>
<i>EUROPEAN PHYSICAL SOCIETY ASSOCIATION</i>	<i>OTH</i>	<i>FR</i>	<i>Participant</i>	<i>2</i>
<i>ELLINOGERMANIKI AGOGI SCHOLI PANAGEA SAVVA AE</i>	<i>HES</i>	<i>GR</i>	<i>Participant</i>	<i>9</i>

### Team Composition

Team Size: members\*

GENDER		
Female	Male	Unknown
17,0%	83,0%	0,0%
SENIORITY		
Average	Junior	Senior
100,0%	0,0%	0,0%
PhD		
No	Yes	
83,0%	17,0%	

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BACKGROUND				
Applied Sciences	Health Sciences	Humanities & Social Sciences	Natural Sciences	Unknown
0,0%	0,0%	100,0%	0,0%	0,0%

**Dimension averages**

GENDER			
	Female	Male	Unknown
SAS	37%	50%	13%
SIS	45%	51%	4%

SENIORITY			
	Average	Junior	Senior
SAS	7%	20%	73%
SIS	6%	9%	84%

PhD		
	No	Yes
SAS	36%	64%
SIS	52%	48%

BACKGROUND					
	Applied Sciences	Health Sciences	Humanities & Social Sciences	Natural Sciences	Unknown
SAS	14%	3%	53%	15%	15%
SIS	9%	2%	74%	10%	4%

*\*The data are based on the analysis of the provided project's Description of Work.*

**DELIVERABLES AND PUBLICATIONS**

DELIVERABLE NO.	DELIVERABLE NAME	DUE DATE OF DELIVERY (month)	ACTUAL SUBMISSION DATE: (month)
D1.1	Project Management Guide	1	
D1.2	Templates	2	
D1.3	Quality Assurance Plan	3	
D1.4	Risk Management Plan	3	
D1.5	Project Monitoring Reporting	18	
D1.6	Periodic Report to EC	12	



Stock-taking and meta-analysis of Science in Society projects throughout FP6 and FP7  
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<i>DELIVERABLE NO.</i>	<i>DELIVERABLE NAME</i>	<i>DUE DATE OF DELIVERY (month)</i>	<i>ACTUAL SUBMISSION DATE: (month)</i>
<i>D1.7</i>	<i>Final report to EC</i>	<i>19</i>	
<i>D2.1</i>	<i>Odysseus Concept- Blueprint</i>	<i>5</i>	
<i>D2.2</i>	<i>Network and target groups Report</i>	<i>8</i>	
<i>D2.3</i>	<i>Rules for participation in the Contest</i>	<i>6</i>	
<i>D2.4</i>	<i>A demo participation</i>	<i>8</i>	
<i>D2.5</i>	<i>Handbook: Carrier Path in space</i>	<i>8</i>	
<i>D3.1</i>	<i>Requirements for Odysseus web portal</i>	<i>5</i>	
<i>D3.2</i>	<i>Repositories</i>	<i>16</i>	
<i>D3.3</i>	<i>Odysseus web site</i>	<i>1</i>	
<i>D3.4</i>	<i>Odysseus web portal</i>	<i>5</i>	

**MAIN SOURCES**

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ODYSSEUS Final Report (2013).

ODYSSEUS Description of Work (2011).

## **ASSESSING THE EDUCATIONAL GAPS IN AERONAUTICS AND AIR TRANSPORT "EDUCAIR"**

**Framework Programme: FP7 related to SIS**  
**Dimension: SCIENCE LITERACY**  
**Tool: -**  
**Project Call For Proposal: FP7-AAT-2011-RTD-1**  
**Status: CLO**  
**Total cost: 596.362,8**  
**Total EU funding: 392.142**  
**Website: www.educair.eu**  
**Period: 01/11/2011- 31/07/2013**  
**Subjects: Transport**  
**Project ID and Acronym: ID: 284899, ACRONYM: EDUCAIR**

### **BACKGROUND AND CONTEXT OF THE PROJECT AND STRATEGIC NEEDS**

The global economy has become dependent on air travelling. The European Air Transport System has turned into a pivotal element for European mobility, able to drive growth and employment in all Member States. Nevertheless, the aviation sector has been challenged with an ever-growing traffic volume, new technologies and serious security concerns. In parallel, market demand for professional competences and skills has shifted towards higher qualifications. Improving the education and expertise of human resources has become necessary to ensure the long-term competitive advantage of the European air transport system. The overarching objective of EDUCAIR was to improve the matching between the needs (demand) in human resources and the educational/training offer (supply) in Europe and other regions in the World. The assumption was that any misalignment or gap between competences/skills required by the Industry and the educational background acquired would have negatively impacted on the EU Aviation Sector and its future development.

### **SPECIFIC PROJECT OBJECTIVES**

The specific objectives of EDUCAIR were:

- to identify the air transport and aeronautics needs in terms of staff education and training in EU by 2020 and in parallel, to assess any mismatch - or competence gap - of engineers and researchers due to the educational curricula offered in their field of specialisation.
- to identify the key attractiveness and repulsion factors for studying and working in the Aviation Sector in order to understand how to attract more students into educational programmes;
- to forecast the amount of jobs in the EU Aviation Sector for the year 2020 providing relevant information on the short term needs of graduated students;
- to review and characterise the current educational offer on Aviation (and related fields) within the space of the European Union.

The project's specific objectives were relevant for:

- **ERA:** Promoting and spreading excellence across the Union through the educational institutions was the core of the EDUCAIR project<sup>151</sup> and a key element for the establishment of the ERA. EDUCAIR contributed to the ERA priority of achieving "more effective national research systems" by promoting the role of doctoral programmes and research training identifying. The identification of competence gaps of engineers and researchers in aeronautics and air transport was essential for developing adequate human resources that would contribute to increase the competitiveness of the European region.
- **Innovation Union:** EDUCAIR supported the improvement of air transport education as well as innovation. Therefore, the project contributed to the IU strategic objective "strengthening the innovation and competitiveness in Europe" and to the operational objective "promoting excellence in education and skills development" by improving the curricula and courses for prospective professionals in the air transport and aeronautics sectors.

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<sup>151</sup> Annex I- Description of the Work (2006).

### **SaS/SiS Programme objectives/Activity Lines**

Although EDUCAIR was not funded under the SiS Programme, it was relevant to achieve the programme objective of increasing the number of young people from all backgrounds entering careers in science, research and technology. The project contributed to provide information on the short term needs of graduated students to bridge the gaps with market requirements and motivate the younger generations. The transport and aeronautics sectors struggled to attract more and better students and researchers. Thus, increasing their attractiveness and specifying the competences required was key for a future progress.

### **SaS Action Plan**

EDUCAIR was relevant for the SaS Action Plan objectives embedded in the actions under "Science education and careers" (Action 11-18). The project, in fact, addressed the European education systems and training. By identifying the market expected portfolio of students' competences, EDUCAIR contributed to improve the educational offers and curricula. There was a complementarity between the creation of the European Research Area and the European Higher Education Area, which were the pillars of a knowledge-based society. Thus, the project contributed to that major effort.

## **PROJECT RESULTS AND OUTCOMES**

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### **Main achievements according to Project objectives**

As regards the objectives set by the Description of Work, the project performed:

- an analysis of 88 competences needed, grouped into 19 aggregated competences along 4 domains (Airlines, Airport, ANSPs and Manufacturers) and related to the interaction between companies, employees, students and educational Institutions. The competence gaps were assessed between 4 pair of agents: Companies, Employees, Students and Educational Institutions. Based on the assessment, 4 competence gaps were found, 4 recommendations issued and 3 skills that might require further studies and tailored actions were identified: theoretical background, leadership and ability to work in multidisciplinary teams;
- an analysis of the attractiveness and repulsion factors for studying and working in the Aviation Sector<sup>152</sup> based on a wide scale online survey to students, employees and graduates in the Aviation domain but working elsewhere;
- a forecast on the direct and related employment numbers in Aviation within Europe until 2020; the evolution of employment numbers was predicted on a disaggregated basis (e.g. airlines, airports, the (civil) aeronautics sector);
- a review and characterisation of the current educational offer in Aviation (and related fields) within the European Union.

### **Main obstacles**

One of the main obstacles in carrying out the research in EDUCAIR was the lack of accurate and reliable statistics concerning education and employment in the European Civil Aviation Sector. Indeed, information on the current educational landscape was relative scarce and disperse among different institutions. Given the scarcity and poor quality of available data sources, the project recommended the establishment of a European Observatory for Education and Employment in Civil Aviation<sup>153</sup> for monitoring aviation employment and training.

### **Main achievements according to Programme objectives**

The project contributed to strengthen the links between education (young people and science teachers) and research. In the review of the educational offer in aviation, EDUCAIR recognised the need to increase the number of highly qualified graduates and well trained researchers also in relation to the objective of strengthening Europe's research capacity and attractiveness. To improve the visibility and readability of Aviation-related courses, EDUCAIR recommended to provide further support and incentives to internships or on on-job working and to explain and promote the understanding of Curricula. Thus, the project suggested initiatives to achieve a critical mass in Doctoral programmes as well as to raise the interest of young students for a career in the field.

### **Main achievements according to SiS Dimensions**

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<sup>152</sup> Based on a wide scale online students' survey, the analysis identified 3 key attraction factors (i.e. Fascination of Aviation sectors, Challenging carrier and development path, working benefits) and 3 repulsion factors (i.e. above-average difficulty and lengthly of the programme; excessive theoretical contexts; insufficient emphasis on practice).

<sup>153</sup> EDUCAIR Final Report (2013), page 4.

EDUCAIR contributed to the science literacy SiS dimension and therefore its outcomes could be framed in the wider discourse analysis. The project applied a more "mature" concept of the dimension. As part of the project activities, EDUCAIR studied the evolution of the educational techniques and tools in higher education as referred to in: academic, research and lifelong learning (vocational and professional). The project issued recommendations to review the tools for teaching, so as to keep up with the recent major technological advancements. In line with the SiS trend to further involve the society in the co-design of science, EDUCAIR engaged the Industry in the development of collaborative doctoral programmes and Universities and Educational Institutions in the definition of new courses/training. A real informal cooperation between the different programmes was supported.

### **DISSEMINATION AND ENGAGEMENT ACTIVITIES AIMED AT TRANSFERRING THE PROJECT RESULTS TO WIDER COMMUNITIES**

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Disseminating the EDUCAIR project findings and recommendations was essential to support adjustments in educational curricula. As outlined in the Description of Work, the website was meant to be the main tool to widely disseminate the available material to focus groups. Leaflets, posters, banners and two profiles in social networks, LinkedIn and Facebook, were foreseen for achieving a greater impact. Participation in conferences and two seminars were also among the dissemination activities.

As expected, different stakeholder groups were targeted: universities and educational institutions, research institutes, industry, EC and policy makers, students and employees. Looking at dissemination activities actually performed, the main achievements are summarised as follows:

- **Website (<http://www.educair.eu>)** - as vehicle for dissemination of activities containing all public outputs and results;
- **Establishment of communication liaisons** - with the U.S. National Centre of Excellence for Aviation Operations Research (NEXTOR II) Universities especially with 4 Core Members of NEXTOR II<sup>154</sup>;
- **Dissemination material** - including leaflets, banners and posters;
- **Organisation of Conferences/workshops**- Transportation Research Board (TRB) 92nd Annual Meeting (January 13-17, 2013); Committee on Airport Terminals and Ground Access (AV050) in Washington; World Conference on Transport Research (July 15, 2013) in Rio de Janeiro.
- **2 Seminars**- the Final Seminar of EDUCAIR Project was held during the 2013 Paris Air Show (19<sup>th</sup> June 2013);
- **Email communication** of the project activities and the online survey as well as communication through social media (i.e., LinkedIn);
- **Regular newsletter** to inform on the project outcomes and communication through social media.

Beyond the expectations, the educational institutions involved as EDUCAIR partners, served as key vectors for the uptake of results in their educational programmes as well as exploitation in their international networks.

### **PROJECT IMPACTS**

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Expected positive impacts of the EDUCAIR project included an increased visibility of the European educational offer and higher relevance of the European applied research in the air transport and aeronautics sectors. Thanks to the assessment of gaps and recommendations, EDUCAIR would also have supported the dissemination of new courses and curricula, increasing the employability of students and the productivity of employees who attended them.

Looking at the consortium, EDUCAIR participants had a long experience in the participation to EU-funded research projects and platforms as well as in producing educational content within the air transport and aeronautics sectors. In fact, all the 6 participants were in the top 10% of the most central organisations in the overall FP network. Of these, 4 were in the top 1%, meaning that high potential impacts were expected (betweenness centrality). As for the Universities involved, only the University of Antwerp was listed in the Leiden ranking on scientific attractiveness (i.e. based on the quality of publications), ranking in 336<sup>th</sup> position. The actual impacts achieved by EDUCAIR were:

- **Scientific impact.** Preparation of a joint, co-authored scientific publication summarizing the key findings and recommendations of the project. Publication on the Journal of Higher Education, with the paper: "Mitigating the competences gaps to improve the person-job fit in the aviation industries".

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<sup>154</sup> Massachusetts Institute of Technology, University of Maryland, Georgia Institute of Technology, and Purdue University.

- **Social Media impact.** There was only 1 post recorded in the Social media listening buzz. As underlined in the Final Report, the project results were intensively exploited by EDUCAIR partners to support: i) the production of scientific papers (for journals and conferences) and other documents, ii) the production of master and doctoral thesis, iii) the preparation of courses curricula, iv) the development of other research projects, v) the preparation of advising documents for Educational Institutions' curricula.
- **Institutional and organisational impact.** No relevant impact was reported in the project documents.
- **Policy impact.** At the time of the project, the European Union had already started a profound restructuring of its higher education system through the implementation of the Bologna Process in order to establish a common higher education degree structure in the European Higher Education Area. The outputs generated by EDUCAIR could be used to support the definition of objectives for Education and Training policies in air transport and aeronautics both at EU and national level.

### PATH-BREAKING ADVANCEMENTS

An innovative aspect of the EDUCAIR project was the combination of the qualitative approach to complement the quantitative approach in carrying out the analysis and discussion on the relevance and meaning of the gaps. This approach, together with the survey and applied research tools (e.g. phone interviews, direct contacts), allowed to achieve a wider overview of the competence and skills needed for professionals in the field. The engagement of different types of actors, such as enterprises, Universities, Educational Institutions and Research Institutions was key to better assess the current and future competence gaps and needs. That was possible through contacts with many stakeholders to gather information, participation in Educational Conferences (e.g. International Academic Association for the Enhancement of Learning in Higher Education Conference or European Conference for Academic Disciplines Conference).

### EU ADDED VALUE OF THE PROJECT

The project built on the assumption that none of the challenges affecting the European air transport system could be faced without adequate human resources and a more common framework in the EU was needed.<sup>155</sup> Improving the quality of education as well as raising the attractiveness of air transport and aeronautics-related jobs was essential to ensure future developments. Given the importance of the air transport industry in Europe, the rapid changes and the wide diversity of universities (or other educational Institutions) providing courses in air transport and aeronautics, there was a real risk of mismatch between the prospective employees' competences and the market's actual requirements. Despite the limited amount of available data, the project provided of an EU-wide scale assessment of competence gaps and market needs, which could be used as bases for the development of targeted curricula. In addition, recommendations at EU level were useful to support the adjustment of education courses in the fields of air transport and aeronautics towards common quality standards.

### PARTICIPANTS AND RESEARCH TEAM

#### Participants

Number of participants: 6

Number of countries involved: 6

	Type	Country	Role	Previous participations to FP
INSTITUTO SUPERIOR TECNICO	HES	PT	Coordinator	113
UNIVERSITY OF LAS PALMAS DE GRAN CANARIA	HES	ES	Participant	18
STICHTING NATIONAAL LUCHT EN RUIJTEVAARTLABORATORIUM	REC	NL	Participant	88
UNIVERSITY OF ANTWERP	HES	BE	Participant	124
TECHNICAL UNIVERSITY DELFT	HES	NL	Participant	406
ATHENS UNIVERSITY OF ECONOMICS AND BUSINESS	HES	GR	Participant	39

#### Team Composition

Team Size: members\*

<sup>155</sup> EDUCAIR Description of the Work

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GENDER				
Female		Male		Unknown
17,0%		83,0%		0,0%
SENIORITY				
Average		Junior		Senior
8,0%		8,0%		83,0%
PhD				
No			Yes	
92,0%			8,0%	
BACKGROUND				
Applied Sciences	Health Sciences	Humanities & Social Sciences	Natural Sciences	Unknown
0,0%	0,0%	67,0%	0,0%	0,0%

\*The data are based on the analysis of the provided project's Description of Work.

### DELIVERABLES AND PUBLICATIONS

DELIVERABLE NO.	DELIVERABLE NAME	DUE DATE OF DELIVERY (month)	ACTUAL SUBMISSION DATE: (month)
D1.1	Quality Assurance Plan	1	
D1.2	Final Report	18	
D2.3	Kick-off Seminar Minutes	1	
D2.4	EDUCAIR Website	1	
D2.5	Seminar Report	11	
D2.6	Closing Seminar Report	18	
D3.7	Assessment framework	8	
D4.8	Quantitative and qualitative assessment of educational supply	13	
D5.9	Quantitative and qualitative assessment of human resources for research	13	
D6.10	Assessment of Competence Gap between companies' needs and employees' actual competences	13	
D7.11	Job availability and analysis of labour attractiveness of the Air Transport and Aeronautics Sector	13	
D8.12	Assessment the educational and research gaps in Aeronautics and AIR Transport	18	

### PUBLICATIONS

Reis, Vasco (2013). MITIGATING THE COMPETENCES GAPS TO IMPROVE THE PERSON-JOB FIT IN THE AVIATION INDUSTRIES, Journal of Higher Education, Ohio State University Press

### MAIN SOURCES

EDUCAIR Annex I - "Description of Work" (2011)  
EDUCAIR DELIVERABLE WP8:Gap Evaluation and Recommendations (2013)  
EDUCAIR Final Report (2013)  
EDUCAIR Publishable Summary- Final Report (2013)

## **NANOTECHNOLOGY EDUCATION FOR INDUSTRY AND SOCIETY - "NANOEIS"**

**Framework Programme: FP7 related to SIS**  
**Dimension: SCIENCE LITERACY**  
**Tool: Coordination and support action**  
**Project Call For Proposal: FP7-NMP-2012-CSA-6**  
**Status: ONG**  
**Total cost: 571279,2**  
**Total EU funding: 518176**  
**Website: www.nanoeis.eu**  
**Period: 01/11/2012-31/10/2015**  
**Subjects: Scientific Research**  
**Project ID and Acronym: ID: 319054, ACRONYM: NANOEIS**

### **BACKGROUND AND CONTEXT OF THE PROJECT AND STRATEGIC NEEDS**

Work place environments and consumer products have been progressively modified by nanotechnology. Despite the attention paid to nano-studies in secondary schools and universities, the educational contents seemed not to match the job market needs resulting in skills shortages for the European industry. The challenge was to integrate such an interdisciplinary and transectoral subject into traditional curricula. Matching the skills acquired during higher education with the skill requirements of EU industry and society was a clear need. NanoEIS pursued to evaluate how nanotechnology education has been integrated into secondary schools and universities and the cooperation established with Institutions and employers.

### **SPECIFIC PROJECT OBJECTIVES**

The project aimed to improve the education situation in nanotechnology in Europe by pursuing some specific objectives:

- To demonstrate that nanotechnology studies provided added benefit especially due to their interdisciplinary;
- To identify best practice models for raising high school students awareness of nanotechnology as a career choice and of how schools and universities inspire students to take up such opportunities;
- To identify best practice models for curriculum development in nanotechnology applied by universities;
- To provide a university curriculum as open course, including modular teaching materials, and assessment tools for teaching modules, courses or studies on nanotechnology. The open courseware was meant to provide a standard of reference to improve existing curricula.
- To provide a platform for dissemination, testing and fine-tuning of strategies and tools through the NANO futures website.

The project's specific objectives were relevant for:

- **ERA:** improving the university curricula was essential to facilitate industrial employment and thus, to provide an input to national competitiveness in the field of nanotechnology. The establishment of the ERA required an "Optimal transnational co-operation and competition" (point 2.2) to address jointly grand challenges. The NanoEIS networking efforts in stimulating industry and academia relations in teaching and exchange of information among key stakeholders could serve that objective. Furthermore, NanoEIS could also support the "Optimal circulation, access to and transfer of scientific knowledge" (point 2.5) in the ERA by making the NanoEIS knowledge platform a fully accessible single-stop information hub for all stakeholders.
- **Innovation Union:** The IU Communication recognized the remaining weaknesses in science teaching. Therefore, improving nanotechnology education systems in Europe was in line with the IU objective "Promoting excellence in education and skills development" (Point 2.1). By strengthening the knowledge base and the supply-demand matching in the job market, the project supported the strategic IU objective of strengthening the competitiveness in Europe.

### **SaS/SiS Programme objectives/Activity Lines**

The project was not funded under the SiS programme but it was relevant for the attainment of the programme objectives related to young people and science. More specifically, it contributed to increase the number of young people from all backgrounds entering careers in science, research and technology. NanoEIS aimed to align the educational contents in nanotechnology with the skills and competences required by the job market to avoid any shortage or gap. The activities were intended to complement school science curricula in order to improve the learning outcomes. By improving formal and informal education in the field of nanotechnology, it would have been easier to answer the market needs favouring students at their early career stage.

### **SaS Action Plan**

A certain alignment could also be found in the case of the SaS Action Plan despite the different timing. NanoEIS was relevant for the SaS Action Plan objective related to the improvement of science education and careers and efforts made to attract young students to science. The project sought to adapt the existing curricula to the surrounding working environment and its demand. By providing best practice models, it also pursued to make a career in nanotechnology more popular and to raise the students awareness about existing opportunities.

## **PROJECT RESULTS AND OUTCOMES**

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### **Main achievements according to Project objectives**

In line with the expectations, the project main achievements included:

- A comprehensive assessment of job market needs to inform the curriculum development of nanotechnology training courses- mapping of European industry and employer needs for nanotechnology education and training in many organisations across Europe;
- Identification of best practice cases for secondary schools and nanotechnology programmes implementation strategies for universities.
- A model curriculum as an open courseware to support universities in the refinement and improvement of existing curricula as well as in the development of new ones;
- A web-based information platform under continuing check and update;
- Specific recommendation pertaining to the different stakeholders: for nanoeducation at secondary school level to introduce nanotechnology at the early stages; for universities, on how to improve their offer; for industry, to engage more in education in nanotechnology at universities. No recommendations were issued for students but were identified as future possible topic (D6.3);

The main limitation to the project results derived from the use of representatives to collect information rather than complete case samples and the focus on secondary education which did not allow including other school systems such as vocational training systems<sup>156</sup>.

### **Main achievements according to Programme objectives**

NanoEIS was not funded under the SiS programme. Nevertheless, it was consistent with the SiS programme efforts in improving science curricula through informal science education in schools and outside the education institutions. In detail, NanoEIS provided a model out-of-class activities based on collaborative learning for students which could stimulate interest in alternative careers to the mainstream academic one<sup>157</sup>. In addition, it supported lifelong learning by stressing the importance of university courses for employed people in order to adapt to fast development technologies and changing market conditions. On the civil society, it contributed to raise the awareness about nanotechnology via improved education and to promote cultural shift towards innovation.

### **Main achievements according to SiS Dimensions**

NanoEIS was relevant for the science literacy SiS dimension since nanotechnology education was the core of the project. Looking at the main trend of the dimension, the project laid in the middle of the evolution. In fact, NanoEIS supported both formal and informal education at all levels (i.e. high school, universities, lifelong learning) and also outside educational institutions to improve learning. Nanotechnology education could be improved through the development of curricula but it was a suited field for implementing innovative teaching practices (e.g. virtual teaching methods or distribution of household items containing nanomaterials to show its applications) and out-of-classroom activities (e.g. site visits to various stakeholders such as pharmaceutical industries, research institutions and universities).

The project also contributed to the open access and open science SiS dimension by ensuring full publication of all the project materials and findings.

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<sup>156</sup> D6.1 "Report on Recommendations for Secondary Schools".

<sup>157</sup> D4.2 "Out-of-classroom pilot teaching materials".



## DISSEMINATION AND ENGAGEMENT ACTIVITIES AIMED AT TRANSFERRING THE PROJECT RESULTS TO WIDER COMMUNITIES

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NanoEIS planned to disseminate information on major project results and materials mainly online through the Project web portal open to all stakeholders. In addition, different dissemination tools were listed for use (e.g. promotional leaflets, newsletters, press notes and releases, oriented oral communications, associated project portals and Web 2.0 such as Twitter, LinkedIn). In total 35 dissemination activities were undertaken during the project by all partners. Compared to the plan, the main dissemination means applied by NanoEIS included:

- The Project web portal ([www.nanoeis.eu](http://www.nanoeis.eu)) as the main information hub for the project. It was based on the existing NANOFUTURES platform and combined an easy to use approach and tools (e.g. Traffic light system for progress monitoring);
- 14 oral presentations to a scientific event addressing a scientific audience (higher education, Research);
- 2 Internet applications: European Chemistry Thematic Network online newsletter in February 2015; an online webinar workshop on Responsive Tertiary Nano-Education in February, 24<sup>th</sup> 2015;
- 2 interviews to a radio station and a newspaper in 2013, 4 presentations and 5 workshops organised by project partners for different audiences in the course of the project as follows: workshop at the 2013 Euronanoforum in Dublin; Value4Nano project workshop in 2014; Brokerage Event for Nanotechnologies in 2014; NanoEIS 2014 stakeholder workshop "Responsive Tertiary Nano-Education" held in Utrecht (NL); Scientix workshop in 2015;
- Flyers during the Nanosafe 2014 conference in Grenoble, France;
- Activities to promote the "open courseware" model curriculum among universities (e.g. A lecture at 2015 Euronanoforum in Riga; a presentation at the 58<sup>th</sup> Meeting of The Polish Chemical Society, September, 2015 in Gdansk; an online webinar "Developing Nanotechnology Curricula to Meet Industry Needs").

The dissemination activities spread knowledge and results beyond the consortium in an effort to narrow the communication gap between industry, society and academia in nanotechnology education and training. The dissemination strategy targeted companies (industrial and non-industrial), universities and technology/research centres, High Schools, policy makers and Development agencies, civil society. As for the degree of effectiveness, the project reached the widest audience (more than 40.000 people) through interviews on media in Austria and On-line publications. Thus, internet-based approached and media had the largest outreach.

## PROJECT IMPACTS

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The overarching ambition of the project was to improve the education in the field of nanotechnology throughout Europe. The project knowledge and findings were expected to be reported in a document to the Commission for dissemination to key stakeholders. Looking at the consortium, project partners had a solid background in RTD activities covering a wide range of competences and an extended European geographical area. The majority of consortium partners (5 out of 8) were in the top 10% of the most central organisations in the overall FP network due to their cooperation in other FP projects (*betweenness centrality*). In detail, 3 Universities were in the top 5% and among them, the National University of Ireland was the most central reaching the top 1%. Furthermore, the AGH University of Science and Technology was highly ranked (36) by the Leiden University for its research excellence. Partners' network centrality and scientific attractiveness led to higher potential impacts of the NanoEIS project.

As for the actual impacts, the developed model curriculum provided practical examples to educators for implementing reforms in nanotechnology modules and training. Therefore, the project primarily benefited university graduates looking for jobs and employers in need of specific nanotechnology knowledge and expertise. Other actual impacts could be outlined as follows:

- **Scientific impact:** one article was published in a peer reviewed journal and one book chapter was submitted;
- **Social media impacts:** total 128 posts were identified in the social media listening buzz results resulting in a high conversation volume mainly deriving from Twitter (79%).<sup>158</sup>
- **Institutional and organisational:** the project supported the establishment of synergies between academia and industry in the nanotechnology education and curricula development to align the educational offer with the market skills requirements. Nevertheless, no formal network or new institution was established following the project implementation.

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<sup>158</sup> For additional information, please see annex 1.

- **Policy impacts:** the project supported the coordination and alignment of education policies developed at regional/national level on nanotechnology within the EU by targeting Regional/National governments in its dissemination strategy. For instance, information about the NanoEIS project and the model curriculum was sent to the responsible ministries of higher education in Europe. Opportunities of integration of nanotechnology modules in secondary school curricula were found in NL.

The main challenge in the uptake of NanoEIS curriculum by universities was the conservative attitude among university lecturers in changing their lectures which could be partially solved through financial incentives<sup>159</sup>.

## PATH-BREAKING ADVANCEMENTS

Based on the assumption that a single “best” approach to nanotechnology education did not exist, the project carried out an analysis to identify best practice programmes at all levels to tackle specific market skills needs. The project conveyed the idea of nanotechnology education as multi-disciplinary and multi-sectoral subject with strong intersectoral connections rooted in secondary school level but expanding throughout the working life. In sum, nanotechnology could be “a leading way for teaching STEM subjects as a whole”<sup>160</sup> since nano-specific aspects were embedded in different topics. As a follow-up to the NanoEIS project, it was announced that the nano-education at Universities of Applied Science and in commercial courses for life-long learning could also be investigated (D6.3).

## BEST PRACTICES

Duplication of work at both national and international level was among the risks identified by the project in the DoW. To avoid redundancies, the project carried out a close monitoring of the international scene to identify related projects/entities and establish synergies for greater efficiency. Coordination among all the stakeholders involved was the guiding principle of NanoEIS. Above all, the project established contacts with universities offering nanoeducation (e.g. SAXION University of Applied Science, TU Delft, the MESA+ centre for nanotechnology at the University of Twente) informing them about the project and its results. An active networking was undertaken with Infrastructure projects in the nanofield, like QNano ([www.qnano-ri.eu/](http://www.qnano-ri.eu/)) and EUMINAFab (<http://www.euminafab.eu/>), and other technology-driven Infrastructure projects such as MaRINET (working on emerging energy technologies) and ACTRIS (dealing with aerosol monitoring in the gas phase, <http://www.actris.net/>). Finally, a draft of NanoEIS model curriculum was communicated to NANODIODE FP7 project and direct involvement in Value4Nano project was reported. Networking was thus, essential to improve access to facilities and tools for training and to align with employer requirements.

## EU ADDED VALUE OF THE PROJECT

No comprehensive overview of all nanotechnology courses offered by European universities was available at the time of the project<sup>161</sup>. On the whole, European education systems were mainly centred on classical disciplines with poor integration of nanotechnology modules in their curricula. While the EU MS were responsible for shaping their own education systems, action on nanotechnology education at EU level could help align the educational offers with the job market needs. The NanoEIS added value lied primarily in the model curriculum which served as reference for the education systems supporting the curriculum development and improvement across Europe. Furthermore, the industrial actors and academia worked largely independently while the results of the NanoEIS projects stressed the importance of collaboration between them in the provision of nanotechnology education.<sup>162</sup> Direct involvement of industry in teaching was identified as the most effective mean to improve access to industrial employment. Finally, the project contributed to raise the awareness of nanotechnology as an emerging area with far-reaching implications on European industry and society as a whole.

## PARTICIPANTS AND RESEARCH TEAM

### Participants

Number of participants: 8

Number of countries involved:6

Type	Country	Role	Previous participations to FP
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<sup>159</sup> D6.3 “Dissemination of main outcomes to scientific and educational community and general public”.

<sup>160</sup> Final Report Summary – NANOEIS.

<sup>161</sup> D5.7 “Scientific article on best practice examples at all levels of education”.

<sup>162</sup> NANOEIS (2014) Periodic Report Summary.

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	Type	Country	Role	Previous participations to FP
UNIVERSITY OF SALZBURG	HES	AT	Coordinator	40
ORT ISRAEL		IL	Participant	4
NATIONAL UNIVERSITY OF IRELAND	HES	IE	Participant	210
NANOTECHNOLOGY INDUSTRIES ASSOCIATION AISBL	OTH	BE	Participant	6
NANOFUTURES	OTH	BE	Participant	6
MALSCH NEELINA HERMINA	PRC	NL	Participant	5
INSTYTUT KATALIZY I FIZYKOCHEMII POWIERZCHNI IM. JERZEGO HABERA POLSKA AKADEMIA NAUK	HES	PL	Participant	9
AGH UNIVERSITY OF SCIENCE AND TECHNOLOGY	HES	PL	Participant	50

### Team Composition

Team Size: members\*

GENDER				
Female	Male		Unknown	
36,0%	57,0%		7,0%	
SENIORITY				
Average	Junior		Senior	
11,0%	14,0%		75,0%	
PhD				
No	Yes			
29,0%	71,0%			
BACKGROUND				
Applied Sciences	Health Sciences	Humanities & Social Sciences	Natural Sciences	Unknown
0,0%	0,0%	18,0%	7,0%	0,0%

\*The data are based on the analysis of the provided project's Description of Work.

### DELIVERABLES AND PUBLICATIONS

DELIVERABLE NO.	DELIVERABLE NAME	DUE DATE OF DELIVERY (month)	ACTUAL SUBMISSION DATE: (month)
D1.1	Periodic report	36	
D1.2	Public report	38	
D2.1	Report on European industry needs	8	
D2.2	Report on other (social) employer needs	8	
D2.3	Report on secondary school education and its contribution to facilitating transition into university	9	
D3.1	Report on best practices in nanotechnology education at the secondary school level	24	
D3.2	Report on implementation strategies for nanotechnology programmes at universities	24	
D3.3	Report on factors favouring specific desired outcomes for nanotechnology programmes at universities	24	
D3.4	Report on best practices for involving employers in setting up and maintaining programmes	36	
D3.5	Report on best practice examples at all levels of	36	

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Final Case Studies

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DELIVERABLE NO.	DELIVERABLE NAME	DUE DATE OF DELIVERY (month)	ACTUAL SUBMISSION DATE: (month)
	<i>education</i>		
D4.1	<i>Model curriculum provided as open courseware</i>	36	
D4.2	<i>Modules for out of class activities</i>	36	
D5.1	<i>Web-based platform structure</i>	1	
D5.2	<i>Public web-based platform</i>	4	
D5.3	<i>Dissemination and exploitation plan</i>	3	
D5.4	<i>Scientific article on other (social) employer needs</i>	18	
D5.5	<i>Report on dissemination activities focusing on university</i>	36	
D5.6	<i>Report on overall dissemination activities</i>	36	
D5.7	<i>Scientific article on best practice examples at all levels of education</i>	36	
D.6.1	<i>Report on recommendations for secondary schools</i>	36	
D6.2	<i>Report on recommendations for universities (nanotechnology studies and lifelong learning)</i>	36	
D6.3	<i>Dissemination of main outcomes</i>	36	

#### **PUBLICATIONS**

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Malsch, I. (2013). Nano-education from a European perspective: nano-training for non-R&D jobs, *Nanotechnology Reviews*, 3(2), 211-221. Available at (<http://www.degruyter.com/view/j/ntrev.2014.3.issue-2/ntrev-2013-0039/ntrev-2013-0039.xml?format=INT>)

#### **MAIN SOURCES**

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NanoEIS (2012) Annex I - "Description of Work".

NanoEIS (2015) D6.3 "Dissemination of main outcomes to scientific and educational community and general public".

NanoEIS (2015) D5.6 "Report on overall dissemination activities".

NanoEIS (2015) D5.7 "Scientific article on best practice examples at all levels of education.