

European Strategy Forum
on Research Infrastructures

ESFRI

Annual Report 2010





FOREWORD FROM THE CHAIR

Research Infrastructures are at the core of an efficient EU Research and Innovation Strategy.

I am pleased to present the Annual Report of ESFRI Activities for 2010. This is the 8th Annual Report of the Forum and the first since I took up my responsibilities as ESFRI Chair in September of 2010

Research Infrastructures play an ever-increasing role in many different research areas and they are key to deal with the current challenges. Top quality Research Infrastructures attract the world's best scientists and are fundamental in the advancement of knowledge and technology, nurturing the creative potential of staff, users and providers, thus being crucial socio-economic drivers. The technological and socio-economic impact of large-scale RIs cannot be underestimated. We can increasingly see significant clusters of start-ups around RI sites; these are major catalysts for innovation. We should also acknowledge that research in many fields is impossible without access to supercomputers, radiation sources for new materials, clean rooms for nanotechnologies, data banks for genomics and social sciences, observatories for earth sciences, etc.

Research Infrastructures play a vital role in the Europe 2020 Flagship Initiative, Innovation Union, which addresses the challenges and opportunities Europe is facing in key areas where urgent sustained efforts are required. The importance of RIs in policy development can be further seen in a recent Commission Communication contributing to Smart Growth in Europe 2020 where the Commission encourages Member States to mobilise the regions of Europe to use the European Regional Development Fund (ERDF) to support RIs in nurturing knowledge-based innovation systems.

It goes without saying that 2010 has been a challenging year for all countries in Europe and beyond. Whilst the global downturn in the economy has put significant pressure on the availability of public funding, ESFRI is fortunate to share the Innovation Union's recommendation to not only maintaining the funding of research, but to step it up. We are convinced that by doing so, in the medium to long term, we will reap the rewards of achieving smart, sustainable and inclusive growth.

2010 has been another intensive year for ESFRI. In addition to four plenary meetings of the Forum, and various meetings of parallel groups and the Executive Board, the Fifth European Conference on Research Infrastructures took place in Barcelona in March, the conclusions of which are summarised in this Report. Of course, the implementation of the ESFRI Roadmap continues to be a key endeavour of the Forum, whilst at the same time, ESFRI fulfilled its mandate to identify projects in the Energy, Food and Biology domains for inclusion. This work is nearing completion and an update of the ESFRI Roadmap will be published early next year.

I would like to conclude this introduction to ESFRI's Annual Report for 2010 by expressing thanks, on behalf of the Forum, to Carlo Rizzuto who led the forum as Chair from March 2008 to September 2010. I very much look forward to representing ESFRI and to tackling the challenges that lie ahead.

Beatrix VIERKORN-RUDOLPH
ESFRI Chair

Overview

- Research Infrastructure Roadmaps
- ESFRI Working Groups in 2010
- Overview of ESFRI Meetings
- Conferences related to Research Infrastructures
- ESFRI and contacts with other organisations
- Future outlook and activities

RESEARCH INFRASTRUCTURE ROADMAPS

ESFRI ROADMAP UPDATE 2010

The ESFRI Roadmap for Research Infrastructures was updated at the end of 2010 and will be incorporated into a wider strategy document "ESFRI Strategy Report". This document is being finalised and shall be published during the early part of 2011.

During 2010, ESFRI invited stakeholders to submit proposals for research infrastructures of pan-European relevance in the areas of Energy, Food and Agriculture, for possible inclusion in the next update of the ESFRI Roadmap. Proposals were received and examined by the relevant Thematic Working Groups, before being passed to the Forum for approval.

ESFRI is pleased to include six new infrastructures in the updated ESFRI Roadmap:

In the field of ENERGY:



EU-SOLARIS: a project focusing on the target of establishing a strong distributed infrastructure for developing new solar technologies in the field of concentrated solar power.

The European WindScanner: An infrastructure using innovative laser wind measurement technology to provide new knowledge leading to more efficient, stronger and lighter wind turbines.

MYRRHA: European Fast spectrum Irradiation Facility, a new type of accelerator driven research reactor in the domain of sustainable nuclear fission energy.

In the field of BIOLOGICAL AND MEDICAL SCIENCES:



MIRRI: Microbial Resource Research Infrastructure will bring together European Microbial Resource Collections, aiming at improving access to enhanced quality microbial resources in an appropriate legal framework. It will build the European platform within the future Global Biological Resource Centre Network (GBRCN) for microorganisms.

ANAEE: Infrastructure for Analysis and Experimentation on Ecosystems aims at developing a coordinated set of experimental platforms to analyse and predict the responses of ecosystems to environmental changes and to engineer management techniques that will allow buffering of and/or adaptation to these changes.

ISBE: Infrastructure for Systems Biology Europe will build an infrastructure made up of (1) readily accessible repositories for storing and archiving data and models, (2) scientific centres of excellence in systems biology providing analytical technologies (e.g. proteomics, metabolomics, genomics, etc..) and/or computational biology, modelling and informatics, (3) real-time connections between these components and with the systems biology research groups across Europe.

IMPLEMENTATION OF THE ESFRI ROADMAP

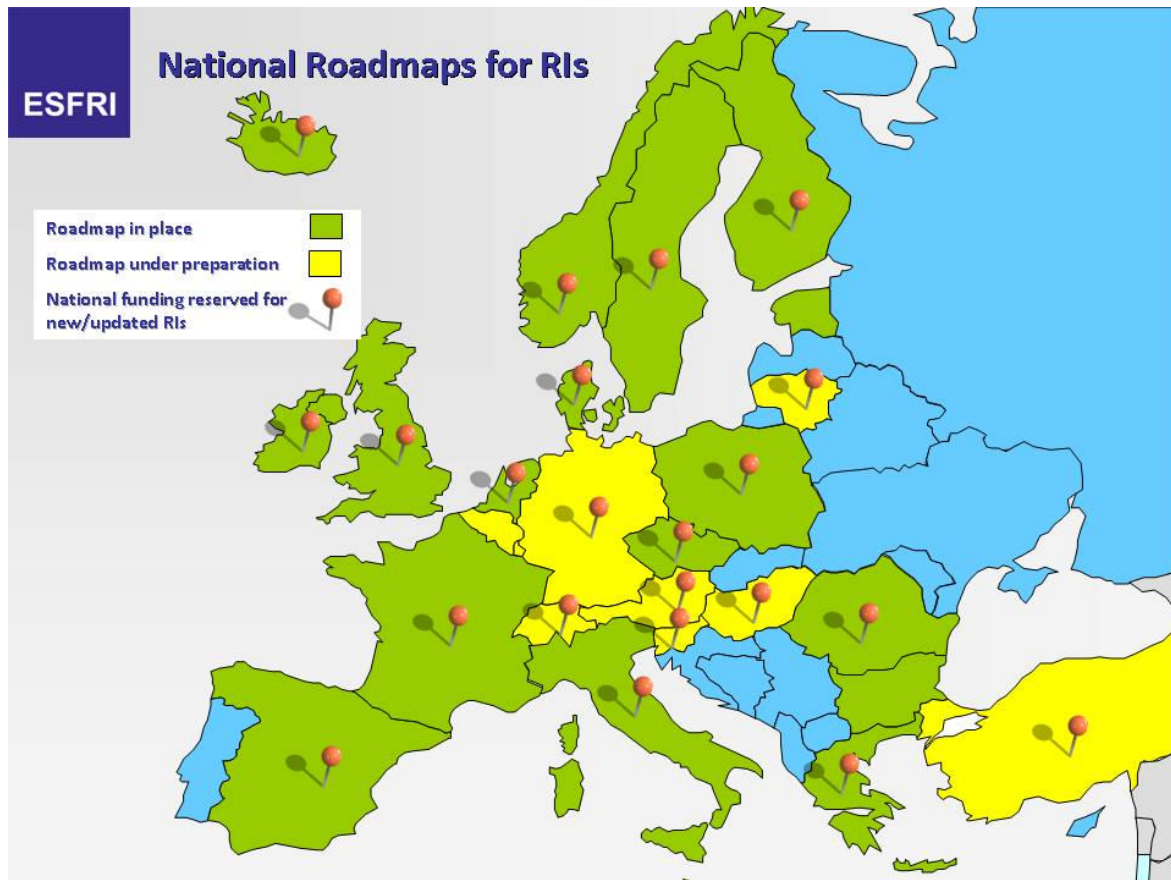
The implementation of the projects remains the key focus of ESFRI activities. Despite the downturn in the global economy, and the increasing pressure on national budgets, ESFRI strongly believes that the successful realisation of the projects on the ESFRI Roadmap can contribute significantly to economic growth and prosperity and therefore helps to create jobs. Indeed, the European Commission's "Europe 2020 Flagship Initiative, Innovation Union" has made a commitment that 60% of the ESFRI Roadmap projects should be completed or launched by 2015.

At the beginning of 2010, ESFRI published its Roadmap Implementation Report. At the end of 2010, ESFRI once again took stock of the situation, for inclusion in the Strategy Report. Encouraging progress can be noted. 10 projects have effectively started; and additional 17 projects will have started by the end of 2013. We are on the right track.

However, ESFRI can only encourage Member States to regularly update their priorities through their national roadmaps and to actively take part in the negotiations surrounding the advancement of the projects to help to implement additional research infrastructures.

NATIONAL ROADMAPS

The publication of the ESFRI Roadmap has triggered the elaboration of national roadmaps. The increasing number of national roadmaps demonstrates that the vast majority of countries have put in place a prioritisation process for existing and new research infrastructures. ESFRI appreciates this development very much.



ESFRI WORKING GROUPS IN 2010

REGIONAL ISSUES

ESFRI firmly believes that Regions have a significant role to play in contributing to economic growth based on research, technology and innovation. ESFRI first set up a Working Group to examine the Regional aspects of Research Infrastructures in 2006. In the meantime, the potential for scientific excellence and technological growth within the convergence and outermost regions has become more and more evident.

In 2010, the Regional Issues Working group continued under the leadership of Anneliese Stoklaska (Austria). The primary mandate of the group during this year was to examine the development of Regional Partner Facilities and their follow-up. This included an analysis of the socio-economic impacts and the management of these facilities. A report of the Working Group is being finalised and is scheduled for publication in 2011.

Additionally, the Forum was pleased to note the organisation of the second Week of Innovative Regions – WIRE 2 – under the Hungarian Presidency of the EU in mid-2012.

EVALUATION WORKING GROUP

In spring, the Forum decided to set up a Working Group to look at developing a system of evaluation and assessment processes and the possible benchmarking of Research Infrastructures (RIs) of pan-European interest and impact. Nadezda Witzanyova (Czech Republic) was nominated to lead this group.

The Group, which has gathered together experts from across Europe, including ESFRI delegates and experts recommended by ESFRI delegates, has worked intensively during the second half of 2010.

The primary objective of the Working Group is to:

- Define feasible steps and procedures for a system of evaluation of RIs, which would build trust and coherence between national policies, whilst at the same time bring about a more focused use of national and EU resources;
- § Identify a methodology based on best practices in evaluating and benchmarking RIs at different levels.

The Working Group Chair presented an interim report to the Forum during its December meeting. Various suggestions were put forward by the ESFRI delegates. Work will continue intensively on the report during the first half of 2011.

ROADMAP THEMATIC WORKING GROUPS

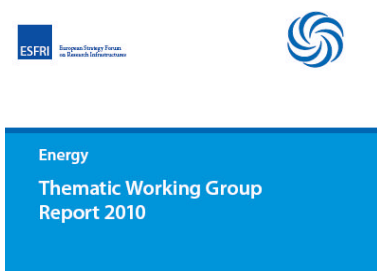
During 2010, the Thematic Working Groups continued to monitor continuously the ESFRI Roadmap, including examining the scientific landscapes in the various thematic domains.

The Chairs of the Thematic Working Groups during 2010 were:

Energy: Gabriele Fioni (France)

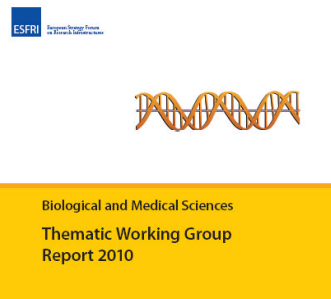
BMS: Eckhart Curtius (Germany)
Environment: Eeva Ikonen (Finland)
SSH: Peter Farago (Switzerland)

Most of the work of the Thematic Working Groups addressing Energy and Biological and Medical Sciences in 2011 was devoted to the evaluation of new proposals for research infrastructures in the areas of Energy, Food and Agriculture based on a call launched in September 2009. More information on the proposals recommended for the Roadmap Update can be seen in the chapter ESFRI Strategy Report, below.



In December 2010, the Energy Thematic Working Group delivered its 2010 Report. This report outlined the Group's recommendations to ESFRI vis-à-vis projects to be included on the ESFRI Roadmap Update 2010, as well as an in-depth overview of the landscape. It also provided an important input to the Belgian Presidency Conference – ENERI 2010. It can be downloaded from the ESFRI website at: [ESFRI Energy TWG Report 2010](#)

At the end of 2010, the Biological and Medical Sciences Thematic Working Group also delivered its Report to ESFRI and the Scientific Community. Once more, in addition to making recommendations for the ESFRI Strategy Report and the Update of the Roadmap, the Working Group also presented an extensive study of the landscape in the field.



Finally, the Environment Thematic Working Group completed its report, which will be presented to the Scientific Community in early 2011. The Report outlines the activities of the ENV TWG. This includes a thorough review of the landscape and takes into account information acquired from and developed within the scientific communities. The group was also called on to give its opinion on two proposals submitted to the BMS and Energy TWGs.

The ESFRI delegates would like to extend their sincere thanks to the Chairs and Members of the Working Groups for their continued dedication and hard work.

OVERVIEW OF ESFRI MEETINGS

32ND MEETING, BARCELONA, 25 MARCH



The first ESFRI meeting of 2010 was hosted by the Spanish Delegation to ESFRI and took place at the Barcelona Supercomputing Centre, immediately after the ECRI 2010 conference. The delegates were pleased to receive an opening address from the Rector of the UPC, Antoni Giró. The delegates agreed that the ECRI 2010 conference was an undoubted success, where once again the role of ESFRI was acknowledged and emphasised.

The Forum would like to extend its sincere gratitude to the Spanish delegates and representatives from the Barcelona Supercomputing Centre for the excellent hospitality offered.

33RD MEETING, BRUSSELS, 11 JUNE

The 33rd meeting of ESFRI took place in Brussels. In addition to usual business, during this meeting the Forum agreed to the setting up of an ESFRI Working Group to reflect on the evaluation and prioritisation of pan-European RIs. Nadezda Witzanyova, Czech Republic was elected as Chair to lead this group.

34TH MEETING, BRUSSELS, 24 SEPTEMBER

The 34th meeting of the Forum took place in Brussels. During this meeting, a key focus of discussion centred on proposals for the update of the ESFRI Roadmap in 2010. The Chairs of the Working Group dealing with projects in the Life Sciences and Energy domain presented their findings to the Forum, having carried out an in-depth evaluation of all proposals received. Following discussion, the Forum unanimously agreed to include six new projects on the ESFRI Roadmap.

During this meeting Carlo Rizzuto handed over the Chair of ESFRI to Beatrix Vierkorn-Rudolph. The Forum expressed its sincere gratitude to Carlo for his tireless devotion to ESFRI over the past years, whilst at the same time welcoming Beatrix and expressing their full confidence in her leadership.

35TH MEETING, BRUSSELS, 01 DECEMBER



The last meeting of 2010 took place in Brussels on 1 December. It was hosted by the Belgian Delegation to ESFRI under the banner of the EU Presidency and followed the Belgian Presidency Conference ENERI 2010.

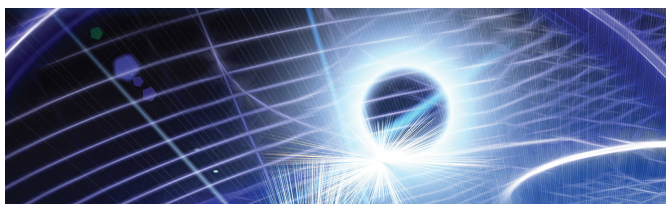
The meeting took place at the Belgian Academy of Science and was opened by its honorary Chairman, Prof. Y. Bruynseraede. During this meeting, much focus was placed on the conclusions of the ENERI 2010 Conference. The need for the ESFRI Thematic Working Group dealing with Energy was considered necessary in view of the challenges that lie ahead and the Forum agreed to continue in this vein.

The final draft of the ESFRI Strategy Report, incorporating the Roadmap Update 2010, was presented to the delegates. Following a roundtable discussion, and suggested amendments, delegates were invited to submit their final comments before the Report is published in early 2011.

The forum extends its thanks to the Belgian Presidency, and its delegates in ESFRI for the excellent organisation and hosting.

MANAGEMENT OF RESEARCH INFRASTRUCTURES

ERIC: THE EUROPEAN RESEARCH INFRASTRUCTURE CONSORTIUM



European Research Infrastructure Consortium (ERIC)
COUNCIL REGULATION (EC) No
723/2009 of 25 June 2009

ERIC, the Community legal framework for a European Research Infrastructure Consortium has officially entered into force on 28 August 2009. The ERIC legal framework is designed to facilitate the joint establishment and operation of research facilities of European interest between several Member States and FP associated countries. An ERIC consists of at least 3 Member States and may include third countries and intergovernmental organisations. Its seat has to be in a Member State or Associated Country.

The Commission has developed and made available a Practical Guide for the establishment of an ERIC. The ERIC management committee was set-up in Oct. 2009. Associated Countries have been invited to participate as observers. A specific ERIC website and an enquiry service for applicants have been put into place. Pre-submission advice is also provided.

The following ESFRI projects have already expressed their interest in becoming an ERIC:

- CESSDA (facility for accessing high quality data for social sciences)
- SHARE (data infrastructure for empiric economic and social science analysis of ongoing changes due to population ageing)
- ESSurvey (upgrade of the European Social Survey, to monitor long term changes in social values)
- DARIAH (Digital data for arts and humanities)
- LifeWatch (infrastructure for research on the protection, management and sustainable use of biodiversity)
- EURO-ARGO (Global Ocean Observing Infrastructure)
- BBMRI (bio-banking and bio-molecular resources)
- ECRIN (clinical trials and biotherapy)
- Infrafrontier (phenotyping and archiving mouse models).

RAMIRI: REALISING AND MANAGING INTERNATIONAL RESEARCH INFRASTRUCTURES

At the end of 2010, the European Commission was finalising negotiations for a second RAMIRI project – RAMIRI 2. Subject to the successful completion of contract negotiations, this project will begin in early 2011. It will build on the work done previously.

The coordinator of RAMIRI2 is Elettra ScpA, Trieste, Italy led by Carlo Rizzuto.

The principal aims of the proposal are to train a group of new RI managers in a number of key practical areas relevant to establishing and managing RIs of pan-European and international importance. This will be done via a series of learning modules that will likely take place in Amsterdam, Prague and Trieste. The training seminars will be focused around small groups of pre-selected trainees.

The input of ESFRI will be sought throughout the duration of RAMIRI2.

CONFERENCES RELATED TO RESEARCH INFRASTRUCTURES



ECRI 2010: SIXTH EUROPEAN CONFERENCE ON RESEARCH INFRASTRUCTURES BARCELONA, 23-24 MARCH 2010

The Sixth European Conference on Research Infrastructures took place under the auspices of the Spanish Presidency to the EU on 23-24 March 2010.

Some of the key conclusions and findings

- RIs are essential to develop ERA and address the Grand Challenges under the EU 2020 strategy
- A European policy has been developed in the field of RI in recent years
- The work of ESFRI has been crucial in this context
- A closer partnership between the Member States and the European Commission is needed with ESFRI providing a bridge function

Recommendations:

- Continue with the development of an EU policy of RIs (as a pillar of ERA) based on the work of ESFRI;
- The prioritisation of Research Infrastructures is essential
- The political decision-making process should involve all stakeholders
- Sustainable lifecycle funding is a must
- Appropriate management arrangements are needed, with a strong human resources policy
- Open Access is essential but not inherently free
- E-Infrastructures remain a backbone for research, including large scale facilities



R-J Smits and M. Torné, ECRI 2010



Barcelona Supercomputing Centre



ECRI 2010, Barcelona, March 2010

ENERI 2010: INFRASTRUCTURES FOR ENERGY RESEARCH
BELGIAN PRESIDENCY CONFERENCE, BRUSSELS, 29-30 NOVEMBER 2010



A conference addressing Infrastructures for Energy Research took place in Brussels under November 2010 under the auspices of the Belgian Presidency to the EU. ENERI 2010 brought together research policy stakeholders from industry, universities, research institutions and advisory bodies to discuss the development of a comprehensive strategy for energy research infrastructures based on the ESFRI Roadmap and within the broader context of the Grand Challenges and the SET Plan. Attended by more than 300 participants, this event took place over two days. Detailed information was provided on the Update 2010 of the ESFRI Roadmap and the three new pan-European research infrastructures which have been identified in the energy field:

- a wind research facility (Windscanner) to be built in Denmark;
- a concentrated solar power installation (EU Solaris) to be realised in Spain; and
- a new type of nuclear research reactor (Myrrha) to be constructed in Belgium.

Other new and existing energy research infrastructures were presented. Such facilities are clearly needed for the implementation of the Strategic Energy Technology (SET) Plan and for building solid knowledge and technological foundations of future innovation partnerships in the energy field.

The various aspects (human capital, funding, international cooperation, global dimension) of a comprehensive strategy for energy research infrastructures within the context of the Grand Challenges were extensively discussed.



G. Fioni, ENERI 2010



H. Péro, ENERI 2010



ENERI 2010

ENERI stressed the need to implement the co-development of the Research Infrastructure policies in the Energy domain and of the SET-Plan, looking for increased synergies with the Joint Programming activities of the European Energy Research Alliance and the European Industrial Initiatives, in the context of a strengthened Innovation Union.

More information on the conference and its outcome can be downloaded from the ENERI Website: <http://www.eneri2010.be/>

ESFRI AND CONTACTS WITH OTHER ORGANISATIONS

E-IRG E-INFRASTRUCTURES REFLECTION GROUP



ESFRI has enjoyed a mutually beneficial working relationship with e-IRG during the reporting period. In autumn 2010, the e-IRG presented a Blue Paper to ESFRI

The e-IRG Blue Paper is a response to a request from ESFRI to examine ways in which ESFRI Research Infrastructures (RI) and their users can engage and exploit common e-Infrastructure services to satisfy their requirements. It provides an assessment of Europe's e-Infrastructure service portfolio, and identifies the opportunities and challenges involved. This Blue Paper reports on current trends and issues and sets out policy recommendations for several key areas. It is clear that the major requirement is to bring communities together to improve their mutual understanding and collaboration. This is reflected at all levels from technical to policy.

E-Infrastructure provides the technology fabric of many of the current Research Infrastructures and will be a strong driver for the development of the next generation of RIs. The outcome of the e-IRG "Blue Paper" will help ESFRI to examine ways in which ESFRI Research Infrastructures and their users can engage and exploit common e-Infrastructure services to satisfy their requirements. The report is therefore an important contribution for us to fulfil our mandate to support a strategy-led approach for the pooling of resources and efforts in Pan-EU Research Infrastructures, thus contributing to the construction of the ERA

The commitment and vision of the outgoing Chair of e-IRG, Leif Laaksonen, has been appreciated by all delegates, who look forward to continuing and nurturing this cooperation with the new Chair of the e-IRG in 2011.

INTERNATIONAL COOPERATION

As projects of the Roadmap mature, contacts between ESFRI and non-European countries having similar projects or wishing to explore possible avenues of cooperation increased during 2010. In January a joint EU-India workshop took place in New Delhi. In particular, the US expressed the wish to increase cooperation with the EU on a number of issues and new facilities in various areas of S&T. Several meetings with US officials (NSF, NOAA and also DOE) took place throughout the year both in Europe and in Washington DC, and a dedicated one day workshop was held in Rome on 1 October 2010.

The Russian Federation also expressed the intention of increasing cooperation on research infrastructures following the conclusion of their compilation exercise of existing research infrastructures in Russia. Preparation is currently under way for a workshop on RIs with China and with Australia, as well as for a joint EU-Russia Working Group on Research Infrastructures. In the area of global research infrastructures, ESFRI was represented in the European Expert Group on Cost Control and Management of Global RIs, which produced a report with twelve key recommendations for best practice (to be published in 2011).

FUTURE OUTLOOK AND ACTIVITIES

ESFRI STRATEGY REPORT AND ROADMAP UPDATE

In early 2011, ESFRI will present its Strategy Report and Roadmap Update. This will be a vital policy document and will enable policy makers to make strategic decisions for the years to come. Notwithstanding the current economic climate, ESFRI shall continue to stress that Research Infrastructures are a driving force behind the innovation critical for Europe's future and welfare.

IMPLEMENTATION OF THE PROJECTS ON THE ESFRI ROADMAP

During 2011, the Forum will continue to pay close attention to the projects appearing on the ESFRI Roadmap. ESFRI shall maintain the growing momentum and determination to bring these facilities to fruition as soon as possible. Although progress at the end of 2010 is very promising, with many of the Roadmap Projects well along the road towards implementation, the Forum is keenly aware of the Innovation Union's challenge that 60% should be realised by 2015. We shall continue therefore to work closely with all stakeholders, from research councils and ministries, as well as from universities, research institutions, industry and advisory bodies.

MANAGEMENT OF RESEARCH INFRASTRUCTURES

The Forum will follow closely the next actions and initiatives for training managers of RIs of pan-European relevance, though – for example- the RAMIRI 2 project. Additionally, the Forum is now reflecting on the wider issue of the socio-economic impact of Research Infrastructures. Following an assessment of various studies done within the Member States on this issue, ESFRI would like to take this issue forward in 2011, perhaps through the organisation of a dedicated Workshop, to brainstorm and reflect further.

INTERNATIONAL COOPERATION

The importance of global issues will be taken into account by the Forum representatives, either during international meetings and workshops, or during bilateral events. In early 2011, the ESFRI Chair will meet with her counterparts in the USA to advance bilateral cooperation in the field of Research Infrastructures.

REGIONAL ISSUES

The work of the Regional Issues Working Group shall continue to be a strong focus of ESFRI activities in 2011. The publication of the Working Group's report will be welcomed by both ESFRI and the regions of Europe.

In addition, in June 2011, the Hungarian Presidency to the EU will host the second Week of Innovative Regions Conference - WIRE2.

The WIRE2011 Conference will connect cluster development and research infrastructure policy in order to enhance innovation performances and regional development. This event is follow-on from that organised in Granada, Spain in 2010. Organised jointly by the European Commission and the Hungarian Presidency, it will focus on synergies between research infrastructures and cluster policy.

Taking the European Union's "2020, a strategy for a smart, sustainable and inclusive development strategy", as well as the 'Innovation Union Flagship Initiative' – the event will focus on questions related to knowledge, innovation and competitiveness in economy with respect to research infrastructure investments, clusters and their effects on how they can support smart growth in the regions.



35th Meeting of ESFRI,
Brussels, 3 December 2010

ESFRI MEMBERSHIP

ESFRI CHAIR

Dr. Beatrix VIERKORN-RUDOLPH

MEMBER STATES

AUSTRIA

Dr. Anneliese STOKLASKA
Dr. Daniel WESELKA

BELGIUM

Dr. Jean MOULIN

BULGARIA

Mr. Orlin KUZOV
Ms. Anna PROYKOVA

CYPRUS

Mr. Stavros MALAS
Mr. Christos ASPRIS

CZECH REPUBLIC

RNDr. Jan HRUSÁK, CSc.
Mrs. Nadezda WITZANYOVA

DENMARK

Mr. Jørgen KJEMS
Mr. Hans Müller PEDERSEN

ESTONIA

Dr. Toivo RÄIM
Dr. Indrek REIMAND

FINLAND

Dr. Mika AALTO
Ms. Eeva IKONEN

FRANCE

Dr. Gabriele FIONI
Ms. Susana GOTA GOLDMANN

GERMANY

Dr. Eckhart CURTIUS
Mr. Wilfried KRAUS

GREECE

Dr. George KOLLIAS
Mr. Ion SIOTIS

HUNGARY

Dr. Péter LÉVAI
Ms. Erika NÉMETHNÉ JÁROLI

IRELAND

Dr. Jacqueline E M Allan
Dr. Eucharía MEEHAN PhD, CDipAF

ITALY

Prof. Giorgio ROSSI
Prof. Glauco TOCCHINI-VALENTINI

LATVIA

Dr. Maija BUNDULE
MSc Kaspars LĀCIS

LITHUANIA

Dr. Gintaras VALINCIUS
Dr. Stanislovas ŽURAUSKAS

LUXEMBURG

Mr. Pierre DECKER
Mr. Robert KERGER

MALTA

Professor Joseph MICALLEF
Dr. Nicholas SAMMUT

POLAND

Dr. Jacek T. GIERLINSKI
Dr. Anna OSTAPCZUK

PORTUGAL

Prof. Lúgia AMANCIO
Prof. Gaspar BARREIRA

ROMANIA

Mr. Ionel ANDREI
Mr. Adrian DUSA

SLOVAKIA

Mr. Mikulas SUPIN
Prof. Pavol SOVÁK

SLOVENIA

Dr. Miran CEH
Mr. Sergej MOŽINA

SPAIN

Mr. Carlos MARTINEZ RIERA
Mr. Luis E. RUIZ LÓPEZ DE LA TORRE AYLÓN

SWEDEN

Prof. Lars BÖRJESSON
Dr. Mats JOHANSSON

THE NETHERLANDS

Dr. Hans CHANG
Drs. Leo L. LE DUC

UNITED KINGDOM

Dr. Steven WILSON
Prof John WOMERSLEY

EUROPEAN COMMISSION

Ms. Anneli PAULI

ASSOCIATED STATES

ALBANIA

Mr. Alban YLLI

CROATIA

Dr. Hrvoje MEŠTRIC,

ICELAND

Dr Fridrika HARDARDOTTIR, Adviser

ISRAEL

Prof. David HORN

LIECHTENSTEIN

Mr. Karl-Heinz OEHRI

MONTENEGRO

Prof. Radomir VUKASOJEVIC

NORWAY

Mr. Odd Ivar ERIKSEN
Mr. Bjørn HENRICHSEN

SERBIA

Prof. dr. Viktor NEDOVIC
Mr. Darko DJUKIC

SWITZERLAND

Dr. Philipp LANGER
Prof. Peter FARAGO

TURKEY

Prof. Murat OZGOREN

ESFRI SECRETARIAT

Mr. Hervé PERO (ESFRI Executive Secretary)
Ms. Elena RIGHI-STEELE
Ms. Sharon KEARNEY
Mr. Christos VASILAKOS



ESFRI

For further information, please contact
ESFRI Secretariat
Postal Address
European Commission
SDME 01/128
B-1049 Brussels, Belgium

ESFRI@ec.europa.eu

Tel: 00 32 2 299 25 39
Fax: 00 32 2 299 21 02