

# **EU funded projects on Atlantic Ocean**

Horizon 2020

FP7

FP6



#### **EU funded projects on Atlantic Ocean**

European Commission
Directorate-General for Research and Innovation
Directorate F — Bioeconomy
Unit F.4 — Marine Resources
Contact Sigi Gruber

E-mail Sieglinde.GRUBER@ec.europa.eu

RTD-PUBLICATIONS@ec.europa.eu

European Commission Office CDMA 00/052 B-1049 Brussels

Printed by European Commission in Belgium

Manuscript completed in November 2018.

Neither the European Commission nor any person acting on behalf of the Commission is responsible for the use which might be made of the following information.

The views expressed in this publication are the sole responsibility of the authors of the project proposals and do not necessarily reflect the views of the European Commission.

More information on the European Union is available on the internet (http://europa.eu).

Luxembourg: Publications Office of the European Union, 2018

#### © European Union, 2018.

Reuse is authorised only from the version published online and provided the source is acknowledged. The reuse policy of European Commission documents is regulated by Decision 2011/833/EU (OJ L 330, 14.12.2011, p. 39).

For any use or reproduction of photos or other material that is not under the EU copyright, permission must be sought directly from the copyright holders.

# **EU funded projects** on Atlantic Ocean

# Horizon 2020 and selection of FP7 and FP6

compiled and edited by

Vilma Radvilaite, Marta Garcia Gato and Wendy Bonne

#### **Table of Contents**

ΕL	J fund	led projects on Atlantic Ocean	1
1	HOR	ZON 2020 Atlantic Ocean projects	3
	1.1	AANCHOR	
	1.2	AORAC-SA	6
	1.3	APPLICATE	
	1.4	AquaSpace	10
	1.5	AtlantOS	
	1.6	ATLAS	
	1.7	Blue-Action	
	1.8	BlueBRIDGE	
	1.9	CERES	
	_	ClimeFish	
		COLUMBUS	
		CONCHA	
		DiscardLess	
		EMERTOX	
		FARFISH	
		GENIALG	
		INMARE	
		INTAROS	
		MARIBE	
		MARSU	
		MERCES	
		MUSES	
		NUNATARYUK	
		PADDLE	
		PrimeFish	
		Respon-Sea-ble	
		SALSA	
		SeaChange	
		SEACRIFOG	
		SponGES	
		VIVALDI	
		Atlantic Ocean projects (selection)	
		EUROSITES	
	2.2	FIXO3	
	2.3	GARNET-E	
	2.4	GMOS	
	2.5	HERMIONE	
	2.6	MIAVITA	
	2.7	PREFACE	
3	FP6	Atlantic Ocean projects (selection)	85
	3.1	HERMES	
	3.2	TENATSO	89

# Horizon 2020 funded projects on Atlantic Ocean

#### **AANCHOR**

#### All AtlaNtic Cooperation for Ocean Research and innovation

Framework: Horizon 2020 End date: 2022/09/30

Project number: 818395 Duration: 48 months

**Call:** H2020-BG-2018-1 **Total Cost:** € 4.095.892,50

**Instrument: EU Contribution:** € 3.995.892,50

Coordination & support action Consortium: 17 participants

Start date: 2018/10/01 Project Coordinator: FUNDACAO PARA A CIENCIA

E A TECNOLOGIA, PT

#### **Abstract**

The main ambition of AANChOR is to promote the implementation of the South Atlantic Research and Innovation Flagship initiative and the Belém Statement (BS), signed by the EU, Brazil and South Africa in 2017, to upscale research and innovation cooperation within the Atlantic basin, from Antarctica to the Arctic. AANChOR will pursue this ambition by providing the EC and the BS Implementation Committee (to be established by signatories of the Statement) with a framework to identify and contribute to the implementation of concrete long-term collaborative activities, reinforcing international cooperation between Europe and tropical and South Atlantic countries and connecting with the challenges and research needs of the North Atlantic Ocean. AANChOR will be responsible for launching a multi-stakeholder platform to identify collaborative activities, building on national and international ongoing initiatives such as the All Atlantic Ocean Research Alliance and addressing activities aimed at reinforcing capacity building, promoting academia-industry knowledge transfer for an enhanced ocean innovation, developing common standards, enhancing citizen awareness and ocean literacy and converging and aligning R&I infrastructure initiatives.

To contribute to the implementation of the identified joint activities, AANChOR will provide seed money for the first development stages of selected joint pilot actions and support the identification of the most appropriate existing funding mechanisms and tools for further development of the selected activities. AANChOR will also define long term measures for the sustainability of the cooperation framework beyond the lifetime of the CSA. Recognising the evolving nature of the BS implementation, flexibility has been incorporated into the structure of the CSA allowing its activities adjustment wherever needed. The consortium brings together partners from 5 European Countries, 2 Latin American countries and 2 African countries.

### **AANCHOR**

# All AtlaNtic Cooperation for Ocean Research and innovation

No	Name	Country
1	FUNDACAO PARA A CIENCIA E A TECNOLOGIA	PT
2	INSTITUTO PORTUGUES DO MAR E DA ATMOSFERA IP	PT
3	SOCIEDADE PORTUGUESA DE INOVACAO - CONSULTADORIA EMPRESARIAL E FOMENTO DA INOVACAO S.A.	PT
4	CIENCIA VIVA-AGENCIA NACIONAL PARA A CULTURA CIENTIFICA E TECNOLOGICA	PT
5	FUNDACAO EUROCEAN	PT
6	JOINT PROGRAMMING INITIATIVE ON HEALTHY AND PRODUCTIVE SEAS AND OCEANS	BE
7	CONSORCIO PARA EL DISENO, CONSTRUCCION, EQUIPAMIENTO Y EXPLOTACION DE LA PLATAFORMA OCEANICA DE CANARIAS	ES
8	INSTITUT FRANCAIS DE RECHERCHE POUR L'EXPLOITATION DE LA MER	FR
9	KONSORTIUM DEUTSCHE MEERESFORSCHUNG e.V	DE
10	DEPARTMENT OF SCIENCE AND TECHNOLOGY	ZA
11	NATIONAL RESEARCH FOUNDATION	ZA
12	COUNCIL FOR SCIENTIFIC AND INDUSTRIAL RESEARCH	ZA
13	MINISTERIO DA CIENCIA, TECNOLOGIA, INOVAÇÕES E COMUNICAÇÕES	BR
14	CONSELHO NACIONAL DE DESENVOLVIMENTO CIENTIFICO E TECNOLOGICO	BR
15	CONSELHO NACIONAL DAS FUNDACOES DE ESTADUAIS DE AMPARO A PESQUISA	BR
16	Ministerio de Ciencia, Tecnología e Innovación Productiva	AR
17	UNIVERSIDADE DE CABO VERDE	CV

#### **AORAC-SA**

#### **Atlantic Ocean Research Alliance Coordination and Support Action**

Framework: Horizon 2020 End date: 2020/02/29

Project number: 652677 Duration: 60 months

**Call:** H2020-BG-2014-2 **Total Cost:** € 4,295,137.50

**Instrument: EU Contribution:** € 3,447,000.00

Coordination & support action Consortium: 9 participants

**Start date:** 2015/03/01 **Project Coordinator:** Marine Institute, IE

#### **Abstract**

The Atlantic Ocean Research Alliance Coordination and Support Action (AORAC-SA) is designed to provide scientific, technical and logistical support to the European Commission in developing and implementing trans-Atlantic Marine Research Cooperation between the European Union, the United States of America and Canada.

The Coordination and Support Action (CSA) is carried out within the framework of the Atlantic Ocean Research Alliance as outlined in the Galway Statement on Atlantic Ocean Cooperation (May 2013). Recognising the evolving nature of the Atlantic Ocean Research Alliance, the hallmark of this action is that it is flexible, responsive, inclusive, efficient, innovative, value-adding and supportive.

The CSA, reporting to the Commission representatives of the Atlantic Ocean Research Alliance, will be responsible for the organisation of expert and stakeholder meetings, workshops and conferences required by the Atlantic Ocean Research Alliance and related to identified research priorities (e.g. marine ecosystem-approach, observing systems, marine biotechnology, aquaculture, ocean literacy, seabed and benthic habitat mapping), support actions (e.g. shared access to infrastructure, dissemination and knowledge transfer, establishment of a knowledge sharing platform) and other initiatives as they arise, taking into account related Horizon 2020 supported trans-Atlantic projects (e.g. BG1Atlantic marine ecosystems, BG8 Atlantic Ocean observation and BG13 Ocean literacy) and on-going national and EU collaborative projects (e.g. FP7).

To support the Commission in negotiations with the USA and Canada on trans-Atlantic Ocean Research Cooperation, the AORAC-SA support and governance structure comprises a Secretariat and Management Team, guided by a high-level Operational Board, representative of the major European Marine Research Programming and Funding Organisations as well as those of the USA and Canada. This structure is further able to draw on significant marine research expertise and experience through its partner organisations.

### AORAC-SA

# Atlantic Ocean Research Alliance Coordination and Support Action

No	Name	Country
1	MARINE INSTITUTE (MARINE INSTITUTE)	ΙE
2	INTERNATIONAL COUNCIL FOR THE EXPLORATION OF THE SEA (ICES)	DK
3	INSTITUT FRANCAIS DE RECHERCHE POUR L'EXPLOITATION DE LA MER	FR
4	CONSORCIO PARA EL DISENO, CONSTRUCCION, EQUIPAMIENTO Y EXPLOTACION DE LA PLATAFORMA OCEANICA DE CANARIAS (PLOCAN)	ES
5	CIENCIA VIVA-AGENCIA NACIONAL PARA A CULTURA CIENTIFICA E TECNOLOGICA	PT
6	WOC - WORLD OCEAN LIMITED	UK
7	HAVFORSKNINGSINSTITUTTET	NO
8	THE ICELANDIC CENTRE FOR RESEARCH (RANNIS)	IS
9	MINISTERIO DA CIENCIA E TECNOLOGIA (MCTI)	BR

#### **APPLICATE**

# Advanced Prediction in Polar regions and beyond: Modelling, observing system design and Linkages associated with ArctiC ClimATE change

Framework: Horizon 2020 Duration: 48 months

**Project number:** 727862 **Total Cost:** € 8,715,066.25

**Call:** H2020-BG-2016-1 **EU Contribution:** € 7,999,591.25

**Instrument:** Consortium: 16 participants

Research & Innovation action Project Coordinator: ALFRED-WEGENER-

Start date: 2016/11/01 INSTITUT HELMHOLTZ- ZENTRUM FUER POLAR-

End date: 2020/10/31 UND MEERESFORSCHUNG, DE

#### **Abstract**

Arctic climate change increases the need of a growing number of stakeholders for trustworthy weather and climate predictions, both within the Arctic and beyond. APPLICATE will address this challenge and develop enhanced predictive capacity by bringing together scientists from academia, research institutions and operational prediction centres, including experts in weather and climate prediction and forecast dissemination. APPLICATE will develop a comprehensive framework for observationally constraining and assessing weather and climate models using advanced metrics and diagnostics. This framework will be used to establish the performance of existing models and measure the progress made within the project. APPLICATE will make significant model improvements, focusing on aspects that are known to play pivotal roles in both weather and climate prediction, namely: the atmospheric boundary layer including clouds; sea ice; snow; atmosphere-sea ice-ocean coupling; and oceanic transports. In addition to model developments, APPLICATE will enhance predictive capacity by contributing to the design of the future Arctic observing system and through improved forecast initialization techniques. The impact of Arctic climate change on the weather and climate of the Northern Hemisphere through atmospheric and oceanic linkages will be determined by a comprehensive set of novel multi-model numerical experiments using both coupled and uncoupled ocean and atmosphere models. APPLICATE will develop strong userengagement and dissemination activities, including pro-active engagement of end-users and the exploitation of modern methods for communication and dissemination. Knowledge-transfer will also benefit from the direct engagement of operational prediction centres in APPLICATE. The educational component of APPLICATE will be developed and implemented in collaboration with the Association of Early Career Polar Scientists (APECS).

#### **APPLICATE**

### Advanced Prediction in Polar regions and beyond: Modelling, observing system design and Linkages associated with ArctiC ClimATE change

No	Name	Country
1	ALFRED-WEGENER-INSTITUT HELMHOLTZ- ZENTRUM FUER POLAR- UND MEERESFORSCHUNG	DE
2	BARCELONA SUPERCOMPUTING CENTER - CENTRO NACIONAL DE SUPERCOMPUTACION	ES
3	EUROPEAN CENTRE FOR MEDIUM-RANGE WEATHER FORECASTS	UK
4	UNIVERSITETET I BERGEN	NO
5	UNI RESEARCH AS	NO
6	METEOROLOGISK INSTITUTT	NO
7	MET OFFICE	UK
8	UNIVERSITE CATHOLIQUE DE LOUVAIN	BE
9	THE UNIVERSITY OF READING	UK
10	STOCKHOLMS UNIVERSITET	SE
11	CENTRE NATIONAL DE LA RECHERCHE SCIENTIFIQUE CNRS	FR
12	CENTRE EUROPEEN DE RECHERCHE ET DE FORMATION AVANCEE EN CALCUL SCIENTIFIQUE	FR
13	ARTIC PORTALAP NORDURSLODAGATTIN EHF	IS
14	UNIVERSITETET I TROMSOE	NO
15	P.P. SHIRSHOV INSTITUTE OF OCEANOLOGY OF RUSSIAN ACADEMY OF SCIENCES	RU
16	THE FEDERAL STATE BUDGETARY INSTITUTION VOEIKOV MAIN GEOPHYSICAL OBSERVATORY	RU

#### **AquaSpace**

#### **Ecosystem Approach to making Space for Aquaculture**

Framework: Horizon 2020 **Duration:** 36 months

**Project number:** 633476 **Total Cost:** € 3,198,914.00

**Call:** H2020-SFS-2014-2 **EU Contribution:** € 3,198,914.00

**Instrument:** Consortium: 22 participants

Research and Innovation action Project Coordinator: THE SCOTTISH

Start date: 2015/03/01 ASSOCIATION FOR MARINE SCIENCE LBG, UK

End date: 2018/02/28

#### **Abstract**

The central goal of the project is to provide increased space of high water quality for aquaculture by adopting the Ecosystem Approach to Aquaculture (EAA) and Marine Spatial Planning (MSP) and so to deliver food security and increased employment opportunities through economic growth. MSP is strategic, forward-looking planning for regulating, managing and protecting the marine environment, including through allocation of space that addresses the multiple, cumulative, and potentially conflicting uses of the sea. The three pillars of EAA are ecological sustainability, social equity, and harmonization of multiple uses. We will achieve this goal by identifying the key constraints experienced by aquaculture development in a wide range of contexts and aquaculture types, taking into account all relevant factors and advised by a Reference User Group. We will then map these constraints against a wide variety of tools/methods that have already been developed in national and EU projects for spatial planning purposes, including some that have been designed specifically for aquaculture. In the freshwater sector only, we will also consider ecosystem services provided by aquaculture that are relevant to integrated catchment planning and management. At 16 case study sites having a variety of scales, aquaculture at different trophic levels with different environmental interactions and most importantly with a range of key space-related development constraints as defined by local stakeholders, we will assess appropriate tools using a common process so as to facilitate synthesis and comparison. This case study approach will generate a large amount of information and is allocated about a third of the project's resources. The project will develop the outcomes leading to a set of evaluated tools for facilitating the aquaculture planning process by overcoming present constraints. This information will be presented on an interactive web-based platform with tailored entry points for specific user types (e.g. planners, farmers, public) to enable them to navigate to the tools most appropriate to their application. The knowledge and information gained during this process will be developed into an on-line module at Masters Level which will also be developed into a short Professional Development course aimed at aquaculture planning professionals. The public will be engaged by an innovative school video competition and a vehicle to ensure project legacy will be established.

### **AquaSpace**



### **Ecosystem Approach to making Space for Aquaculture**

No	Name	Country
1	THE SCOTTISH ASSOCIATION FOR MARINESCIENCE LBG (SAMS)	UK
2	AGRIFOOD AND BIOSCIENCES INSTITUTE (AFBI)	UK
3	FUNDACION AZTI - AZTI FUNDAZIOA (AZTI-TECNALIA)	ES
4	BLUEFARM SRL (BLUEFARM)	IT
5	CHRISTIAN MICHELSEN RESEARCH AS (CMR)	NO
6	AGENCIA ESTATAL CONSEJO SUPERIOR DE INVESTIGACIONES CIENTIFICAS (CSIC)	ES
7	FOOD AND AGRICULTURE ORGANIZATION OF THE UNITED NATIONS FAO (FAO)	IT
8	NEMZETI AGRARKUTATASI ES INNOVACIOSKOZPONT (NARIC)	HU
9	INSTITUT FRANCAIS DE RECHERCHE POUR L'EXPLOITATION DE LA MER (IFREMER)	FR
10	HAVFORSKNINGSINSTITUTTET (IMR )	NO
11	THE JAMES HUTTON INSTITUTE (JHI)	UK
12	LONGLINE ENVIRONMENT LTD (LLE)	UK
13	MARINE SCOTLAND (MSS)	UK
14	SAGREMARISCO-VIVEIROS DE MARISCO LDA (SGM)	PT
15	JOHANN HEINRICH VON THUENEN-INSTITUT, BUNDESFORSCHUNGSINSTITUT FUER LAENDLICHE RAEUME, WALD UND FISCHEREI (TI-SF)	DE
16	UNIVERSITY COLLEGE CORK, NATIONAL UNIVERSITY OF IRELAND (UCC)	IE
17	PANEPISTIMIO KRITIS (UNIVERSITY OF CRETE) (UOC)	EL
18	BIHARUGRAI HALGAZDASAG MEZOGAZDASAGI TERMELO ERTEKESITO ES TERMESZETVEDELMI KFT (BHG)	HU
19	DALHOUSIE UNIVERSITY (DAL )	CA
20	YELLOW SEA FISHERIES RESEARCH INSTITUTE, CHINESE ACADEMY OF FISHERY SCIENCES (YSFRI)	CN
21	THE UNIVERSITY OF WESTERN AUSTRALIA (UWA)	AU
22	THE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION (NOAA)	US

#### **AtlantOS**

# Atlantic Optimising and Enhancing the Integrated Atlantic Ocean Observing System

Framework: Horizon 2020 **Duration:** 51 months

**Project number:** 633211 **Total Cost:** € 20,652,921.00

**Call:** H2020-SFS-2014-2 **EU Contribution:** € 20,652,921.00

**Instrument:** Consortium: 62 participants

Research and Innovation action Project Coordinator: Helmholtz Zentrum Fur

Start date: 2015/04/01 Ozeanforschung Kiel (GEOMAR), DE

**End date:** 2019/06/30

#### **Abstract**

The overarching objective of AtlantOS is to achieve a transition from a loosely-coordinated set of existing ocean observing activities to a sustainable, efficient, and fit-for-purpose Integrated Atlantic Ocean Observing System (IAOOS), by defining requirements and systems design, improving the readiness of observing networks and data systems, and engaging stakeholders around the Atlantic; and leaving a legacy and strengthened contribution to the Global Ocean Observing System (GOOS) and the Global Earth Observation System of Systems (GEOSS).

AtlantOS will fill existing in-situ observing system gaps and will ensure that data are readily accessible and useable.

AtlantOS will demonstrate the utility of integrating in-situ and Earth observing satellite based observations towards informing a wide range of sectors using the Copernicus Marine Monitoring Services and the European Marine Observation and Data Network and connect them with similar activities around the Atlantic.

AtlantOS will support activities to share, integrate and standardize in-situ observations, reduce the cost by network optimization and deployment of new technologies, and increase the competitiveness of European industries, and particularly of the small and medium enterprises of the marine sector.

AtlantOS will promote innovation, documentation and exploitation of innovative observing systems.

All AtlantOS work packages will strengthen the trans-Atlantic collaboration, through close interaction with partner institutions from Canada, United States, Brazil, South Africa and others from the Atlantic region. Finally, AtlantOS will promote a structured dialogue with national and regional funding bodies, including the European Commission, USA, Canada and other countries to ensure sustainability and adequate growth of integrated Atlantic Ocean Observing.

### **AtlantOS**

## Project's Participants

### Atlantic Optimising and Enhancing the Integrated Atlantic Ocean Observing System

No	Name	Country
1	HELMHOLTZ ZENTRUM FUR OZEANFORSCHUNG KIEL (GEOMAR)	DE
2	NATURAL ENVIRONMENT RESEARCH COUNCIL (NERC)	UK
3	MARINE INSTITUTE (MI)	ΙE
4	UNIVERSITAET BREMEN (UNI-HB)	DE
5	DANMARKS METEOROLOGISKE INSTITUT (DMI)	DK
6	CENTRE NATIONAL DE LA RECHERCHE SCIENTIFIQUE (CNRS)	FR
7	UNIVERSITE PIERRE ET MARIE CURIE - PARIS 6 (UPMC)	FR
8	INTERNATIONAL COUNCIL FOR THE EXPLORATION OF THE SEA (ICES)	DK
9	KONSORTIUM DEUTSCHE MEERESFORSCHUNG e.V. (KDM)	DE
10	INSTYTUT OCEANOLOGII POLSKIEJ AKADEMII NAUK (IO PAN)	PL
11	HAVFORSKNINGSINSTITUTTET (IMR)	
12	UNIVERSITETET I BERGEN (UIB)	NO
13	AGENCIA ESTATAL CONSEJO SUPERIOR DE INVESTIGACIONES CIENTIFICAS	ES
14	NORSK INSTITUTT FOR VANNFORSKNING (NIVA)	NO
15	CONSORCIO PARA EL DISENO, CONSTRUCCION, EQUIPAMIENTO Y EXPLOTACION DE LA PLATAFORMA OCEANICA DE CANARIAS (PLOCAN)	ES
16	SIR ALISTER HARDY FOUNDATION FOR OCEAN SCIENCE (SAHFOS)	UK
17	DANMARKS TEKNISKE UNIVERSITET (DTU)	DK
18	THE SCOTTISH ASSOCIATION FOR MARINESCIENCE LBG (SAMS)	UK
19	IMAR- INSTITUTO DO MAR (IMAR)	PT
20	STICHTING NIOZ, KONINKLIJK NEDERLANDS INSTITUUT VOOR ONDERZOEK DER ZEE (NIOZ)	NL
21	MET OFFICE (MET O)	UK
22	ALFRED-WEGENER-INSTITUT HELMHOLTZ- ZENTRUM FUER POLARUND MEERESFORSCHUNG (AWI)	DE
23	HAVSTOVAN (HAV)	FO
24	THE UNIVERSITY OF EXETER (UNEXE)	UK
25	INSTITUT DE RECHERCHE POUR LE DEVELOPPEMENT (IRD)	FR
26	EUMETNET GROUPEMENT D'INTERET ECONOMIQUE (EUMETNET)	BE
27	COLLECTE LOCALISATION SATELLITES SA (CLS)	FR
28	CENTRO EURO-MEDITERRANEO SUI CAMBIAMENTI CLIMATICI SCARL	IT
29	VLAAMS INSTITUUT VOOR DE ZEE VZW (VLIZ)	BE
30	CIIMAR - Centro Interdisciplinar de Investigação Marinha e Ambiental (CIIMAR)	PT

31	IEEE FRANCE SECTION (IEEE)	FR
32	FONDATION EUROPEENNE DE LA SCIENCE (EMB-ESF)	FR
33	UNIVERSITY OF PLYMOUTH (UOP)	UK
34	UNIVERSIDADE DO ALGARVE (UALG)	PT
35	INSTITUTO ESPANOL DE OCEANOGRAFIA (IEO)	ES
36	INSTITUT FRANCAIS DE RECHERCHE POUR L'EXPLOITATION DE LA	FR
	MER (IFREMER)	
37	MERCATOR OCEAN (MERCATOR)	FR
38	ALMA MATER STUDIORUM - UNIVERSITA DI BOLOGNA (UNIBO)	IT
39	UNITED NATIONS EDUCATIONAL, SCIENTIFIC AND CULTURAL	FR
	ORGANIZATION -UNESCO (UNESCO)	
40	EURO-ARGO ERIC (EURO-ARGO ERIC)	FR
41	EUROGOOS AISBL (EUROGOOS AISBL)	BE
42	EUROPEAN CENTRE FOR MEDIUM-RANGE WEATHER FORECASTS	UK
	(ECMWF)	
43	PLYMOUTH MARINE LABORATORY (PML)	UK
44	DAITHI O'MURCHU MARINE RESEARCH STATION LTD (DOMMRS)	ΙE
45	SEASCAPE CONSULTANTS LTD (SEASCAPE)	UK
46	BRUNCIN (BRUNCIN)	HR
47	RIBOCON GMBH (RIBOCON )	DE
48	DEVELOGIC GMBH (DSS)	DE
49	NKE INSTRUMENTATION SARL (NKE)	FR
50	CONTROS SYSTEMS & SOLUTIONS GMBH (CONTROS)	DE
51	ACRI-ST SAS (ACRI-ST)	FR
52	T.E. LABORATORIES LIMITED (TELABS)	ΙE
53	ETT SPA (ETT SPA)	IT
54	MARIENE INFORMATIE SERVICE MARIS BV (MARIS)	NL
55	BLUE LOBSTER IT LIMITED (BLIT)	UK
56	CLU SRL (CLU SRL) SRL	IT
57	MAX PLANCK GESELLSCHAFT ZUR FOERDERUNG DER	DE
	WISSENSCHAFTEN E.V. (MPG)	
58	DALHOUSIE UNIVERSITY (DAL)	CA
59	MEOPAR INCORPORATED (MEOPAR )	CA
60	MINISTERIO DA CIENCIA E TECNOLOGIA (MCTI)	BR
61	WOODS HOLE OCEANOGRAPHIC INSTITUTION (WHOI)	US
62	COUNCIL FOR SCIENTIFIC AND INDUSTRIAL RESEARCH (CSIR)	SA

Third parties	Name	Country
1	NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION (NOAA)	US
2	ÉCOLE NORMALE SUPERIEURE (ENS) PARIS	FR
3	UNIVERSIDAD DE LAS PALMAS DE GRAN CANARIA (ULPGC)	ES
4	METEO-FRANCE	FR
5	UNIVERSITY OF HAMBURG (UHAM)	DE
6	MARINE SCOTLAND SCIENCE (MSS)	UK
7	UNI RESEARCH AS (UniRES)	NO
8	MARINE RESEARCH INSTITUTE (MRI)	IS

#### **ATLAS**

# A Trans-AtLantic Assessment and deep-water ecosystem-based Spatial management plan for Europe

Framework: Horizon 2020 Duration: 48 months

**Project number:** 678760 **Total Cost:** € 9,207,916.27

**Call:** H2020-BG-2015-2 **EU Contribution:** € 9,100,316.86

**Instrument:** Consortium: 25 participants

Research and Innovation action **Project Coordinator:** HERIOT-WATT UNIVERSITY,

**Start date:** 2016/05/01 UK

**End date:** 2020/04/30

#### **Abstract**

ATLAS creates a dynamic new partnership between multinational industries, SMEs, governments and academia to assess the Atlantic's deep-sea ecosystems and Marine Genetic Resources to create the integrated and adaptive planning products needed for sustainable Blue Growth. ATLAS will gather diverse new information on sensitive Atlantic ecosystems (incl. VMEs and EBSAs) to produce a step-change in our understanding of their connectivity, functioning and responses to future changes in human use and ocean climate. This is possible because ATLAS takes innovative approaches to its work and interweaves its objectives by placing business, policy and socioeconomic development at the forefront with science. ATLAS not only uses trans-Atlantic oceanographic arrays to understand and predict future change in living marine resources, but enhances their capacity with new sensors to make measurements directly relevant to ecosystem function. The ATLAS team has the track record needed to meet the project's ambitions and has already developed a programme of 25 deep-sea cruises, with more pending final decision. These cruises will study a network of 12 Case Studies spanning the Atlantic including sponge, cold-water coral, seamount and mid-ocean ridge ecosystems. The team has an unprecedented track record in policy development at national, European and international levels. An annual ATLAS Science-Policy Panel in Brussels will take the latest results and Blue Growth opportunities identified from the project directly to policy makers. Finally, ATLAS has a strong trans-Atlantic partnership in Canada and the USA where both government and academic partners will interact closely with ATLAS through shared cruises, staff secondments, scientific collaboration and work to inform Atlantic policy development. ATLAS has been created and designed with our N American partners to foster trans-Atlantic collaboration and the wider objectives of the Galway Statement on Atlantic Ocean Cooperation.



# A Trans-AtLantic Assessment and deep-water ecosystem-based Spatial management plan for Europe

No	Name	Country
1	HERIOT-WATT UNIVERSITY	UK
2	AARHUS UNIVERSITET	DK
3	IMAR- INSTITUTO DO MAR	PT
4	SECRETARIA REGIONAL DO MAR, CIENCIA E TECNOLOGIA	PT
5	NATURAL ENVIRONMENT RESEARCH COUNCIL	UK
6	GIANNI MATTHEW	NL
7	INSTITUT FRANCAIS DE RECHERCHE POUR L'EXPLOITATION DE LA MER	FR
8	MARINE SCOTLAND	UK
9	UNIVERSITAET BREMEN	DE
10	Median SCP	ES
11	STICHTING NIOZ, KONINKLIJK NEDERLANDS INSTITUUT VOOR ONDERZOEK DER ZEE	NL
12	DYNAMIC EARTH CHARITABLE TRUST	UK
13	THE CHANCELLOR, MASTERS AND SCHOLARS OF THE UNIVERSITY OF OXFORD	UK
14	UNIVERSITY COLLEGE DUBLIN, NATIONAL UNIVERSITY OF IRELAND, DUBLIN	IE
15	UNIVERSITY COLLEGE LONDON	UK
16	NATIONAL UNIVERSITY OF IRELAND, GALWAY	IE
17	THE UNIVERSITY OF LIVERPOOL	UK
18	SYDDANSK UNIVERSITET	DK
19	UNIVERSITETET I TROMSOE	NO
20	THE SCOTTISH ASSOCIATION FOR MARINESCIENCE LBG	UK
21	SEASCAPE CONSULTANTS LTD	UK
22	INSTITUTO ESPANOL DE OCEANOGRAFIA	ES
23	UNIVERSITY OF NORTH CAROLINA AT WILMINGTON	US
24	AquaTT UETP Ltd	IE
25	DFO	CA

#### **Blue-Action**

#### **Artic impact on Weather and Climate**

Framework: Horizon 2020 Duration: 51 months

**Project number:** 727852 **Total Cost:** € 8,103,125.00

**Call:** H2020-BG-2016-1 **EU Contribution:** € 7,500,000.00

**Instrument:** Consortium: 40 participants

Research & Innovation action Project Coordinator: DANMARKS

Start date: 2016/12/01 METEOROLOGISKE INSTITUT, DK

**End date:** 2021/02/28

#### **Abstract**

Blue-Action will provide fundamental and empirically-grounded, executable science that quantifies and explains the role of a changing Arctic in increasing predictive capability of weather and climate of the Northern Hemisphere. To achieve this Blue-Action will take a transdisciplinary approach, bridging scientific understanding within Arctic climate, weather and risk management research, with key stakeholder knowledge of the impacts of climatic weather extremes and hazardous events; leading to the co-design of better services. This bridge will build on innovative statistical and dynamical approaches to predict weather and climate extremes. In dialogue with users, Blue-Arctic will take stock in existing knowledge about cross-sectoral impacts and vulnerabilities with respect to the occurrence of these events when associated to weather and climate predictions. Modeling and prediction capabilities will be enhanced by targeting firstly, lower latitude oceanic and atmospheric drivers of regional Arctic changes and secondly, Arctic impacts on Northern Hemisphere climate and weather extremes. Coordinated multi-model experiments will be key to test new higher resolution model configurations, innovative methods to reduce forecast error, and advanced methods to improve uptake of new Earth observations assets are planned. Blue-Action thereby demonstrates how such an uptake may assist in creating better optimized observation system for various modelling applications. The improved robust and reliable forecasting can help meteorological and climate services to better deliver tailored predictions and advice, including sub-seasonal to seasonal time scales, will take Arctic climate prediction beyond seasons and to teleconnections over the Northern Hemisphere. Blue-Action will through its concerted efforts therefore contribute to the improvement of climate models to represent Arctic warming realistically and address its impact on regional and global atmospheric and oceanic circulation.

### **Blue-Action**

## Project's Participants

### Artic impact on Weather and Climate

No	Name	Country
1	DANMARKS METEOROLOGISKE INSTITUT	DK
2	LAPIN YLIOPISTO	FI
3	CAMARA MUNICIPAL DE ALMADA	PT
4	FONDAZIONE CENTRO EURO-MEDITERRANEO SUI CAMBIAMENTI CLIMATICI	ΙΤ
5	CENTRE NATIONAL DE LA RECHERCHE SCIENTIFIQUE CNRS	FR
6	EDUCATIONAL FOUNDATION YONSEI UNIVERSITY	KR
7	DNV GL AS	NO
8	DANMARKS PELAGISKE PRODUCENTORGANISATION FORENING	DK
9	DANMARKS TEKNISKE UNIVERSITET	DK
10	FORESIGHT INTELLIGENCE GBR	DE
11	HELMHOLTZ ZENTRUM FUR OZEANFORSCHUNG KIEL	DE
12	HAVSTOVAN	FO
13	INSTITUTE OF ATMOSPHERIC PHYSICS OFCHINESE ACADEMY OF SCIENCES	CN
14	ORGANIZATION OF THE RUSSIAN ACADEMYOF SCIENCES A.M. OBUKHOV INSTITUTEOF ATMOSPHERIC PHYSICS RAS	RU
15	INSTITUTE FOR ADVANCED SUSTAINABILITY STUDIES EV	DE
16	FUNDACIO INSTITUT CATALA DE CIENCIES DEL CLIMA	ES
17	FEDERAL STATE BUDGETARY INSTITUTION - INSTITUTE OF WORLD ECONOMY AND INTERNATIONAL RELATIONS OF THE RUSSIAN ACADEMY OF SCIENCES	RU
18	KONSORTIUM DEUTSCHE MEERESFORSCHUNG e.V.	DE
19	MEOPAR INCORPORATED	CA
20	MERCATOR OCEAN	FR
21	MAX-PLANCK-GESELLSCHAFT ZUR FORDERUNG DER WISSENSCHAFTEN EV	DE
22	HAFRANNSOKNASTOFNUNIN	IS
23	MARINE SCOTLAND	UK
24	UNIVERSITY CORPORATION FOR ATMOSPHERIC RESEARCH NONPROFIT CORPORATION	US
25	STIFTELSEN NANSEN SENTER FOR MILJOOG FJERNMALING	NO
26	STICHTING NIOZ, KONINKLIJK NEDERLANDS INSTITUUT VOOR ONDERZOEK DER ZEE	NL
27	STICHTING NETHERLANDS ESCIENCE CENTER	NL
28	NATURAL ENVIRONMENT RESEARCH COUNCIL	UK
29	PELAGIC FREEZER TRAWLER ASSOCIATION	NL
30	RUKAKESKUS OY	FI

31	THE SCOTTISH ASSOCIATION FOR MARINESCIENCE LBG	UK
32	SAMS RESEARCH SERVICES LIMITED	UK
33	UNIVERSITAET HAMBURG	DE
34	UNIVERSITETET I BERGEN	NO
35	UNI RESEARCH AS	NO
36	UNIVERSITY OF SOUTHAMPTON	UK
37	UNIVERSITY OF WASHINGTON	US
38	THE UNIVERSITY OF READING	UK
39	WOODS HOLE OCEANOGRAPHIC INSTITUTION	US
40	WOC - WORLD OCEAN LIMITED	UK

#### **BlueBRIDGE**

# Building Research environments for fostering Innovation, Decision making, Governance and Education to support Blue growth

Framework: Horizon 2020 End date: 2018/02/28

**Project number:** 675680 **Duration:** 30 months

**Call:** H2020- EINFRA-2015-1 **Total Cost:** € 5,295,753.75

**Instrument: EU Contribution:** € 5,295,753.75

RIA - Research and Innovation action Consortium: 14 participants

Start date: 2015/09/01 Project Coordinator: CONSIGLIO NAZIONALE

DELLE RICERCHE, IT

#### **Abstract**

BlueBRIDGE responds to the Juncker Investment Plan opening funding opportunities for e-Infrastructures, innovating current practices in producing & delivering scientific knowledge advice to competent authorities & enlarges the spectrum of growth opportunities in distinctive Blue Growth areas. BlueBRIDGE builds on existing EU and International e-Infrastructures providing capacity building in interdisciplinary research communities of scientists, data managers & educators in academic institutions & industries focusing on 4 major challenges: 1) stock assessment 2) socio-economic performance analysis in aquaculture 3) fisheries & habitat degradation monitoring 4) education & knowledge bridging on protection & management of marine resources. BlueBRIDGE capitalizes on past investments and uses a proven e-Infrastructure connecting 1500+ scientists, integrating +50 repositories, executing +13,000 models & algorithms/month; providing access to over a billion quality records in repositories worldwide, with 99,7% service availability. BlueBRIDGE focuses on user needs, opening services & data to actors & liaising with competent agencies & SME Innovation Clusters. Major results include service-driven research environments addressing concrete challenges, data and a wide range of user defined Blue Growth indicators. BlueBRIDGE leverages a set of common services that together foster the realization of an innovative infrastructure-based approach for collaborative knowledge and data sharing, publishing, citation, traceability & trust concretely contributing to the e-Infrastructure Commons. BlueBRIDGE will be deployed in 30 months by an authoritative & complementary consortium with expertise in multiple scientific domains. It bundles forces from International Government Organizations, research institutes, industry, SMEs, education and computer science domains, establishing a network with a proven track in VREs & e-Infrastructures, marine, environmental & fisheries science & economy.

### **BlueBRIDGE**

### Building Research environments for fostering Innovation, Decision making, Governance and Education to support Blue growth

No	Name	Country
1	CONSIGLIO NAZIONALE DELLE RICERCHE	IT
2	GEIE ERCIM	FR
3	ENGINEERING - INGEGNERIA INFORMATICA SPA	IT
4	ETHNIKO KAI KAPODISTRIAKO PANEPISTIMIO ATHINON	EL
5	FOOD AND AGRICULTURE ORGANIZATION OF THE UNITED NATIONS FAO	IT
6	INTERNATIONAL COUNCIL FOR THE EXPLORATION OF THE SEA	DK
7	INSTITUT DE RECHERCHE POUR LE DEVELOPPEMENT	FR
8	FOUNDATION FOR RESEARCH AND TECHNOLOGY HELLAS	EL
9	TRUST-IT SERVICES LIMITED	UK
10	OLOKLIROMENA PLIROFORIAKA SISTIMATAAE	EL
11	COMMUNICATION & INFORMATION TECHNOLOGIES EXPERTS ANONYMOS ETAIREIA SYMVOULEFTIKON KAI ANAPTYXIAKON YPIRESION	EL
12	COLLECTE LOCALISATION SATELLITES SA	FR
13	STIFTELSEN GRID ARENDAL	NO
14	ASSOCIATION POLE MER BRETAGNE	FR

#### **CERES**

#### Climate change and European aquatic RESources

Framework: Horizon 2020 Duration: 48 months

**Project number:** 678193 **Total Cost:** € 5,586,851.25

**Call:** H2020-BG-2015-2 **EU Contribution:** € 5,586,851.25

**Instrument:** Research and Innovation **Consortium:** 26 participants

action **Project Coordinator:** UNIVERSITAET HAMBURG,

**Start date:** 2016/03/01 DE

**End date:** 2020/02/29

#### **Abstract**

CERES advances a cause-and-effect understanding of how future climate change will influence Europe's most important fish and shellfish populations, their habitats, and the economic activities dependent on these species. CERES will involve and closely cooperate with industry and policy stakeholders to define policy, environment, social, technological, law and environmental climate change scenarios to be tested. This four-year project will: 1. Provide regionally relevant short-, medium- and long-term future, high resolution projections of key environmental variables for European marine and freshwater ecosystems; 2. Integrate the resulting knowledge on changes in productivity, biology and ecology of wild and cultured animals (including key indirect / food web interactions), and 'scale up' to consequences for shellfish and fish populations, assemblages as well as their ecosystems and economic sectors; 3. Utilize innovative risk-assessment methodologies that encompass drivers of change, threats to fishery and aquaculture resources, expert knowledge, barriers to adaptation and likely consequences if mitigation measures are not put in place; 4. Anticipate responses and assist in the adaptation of aquatic food production industries to underlying biophysical changes, including developing new operating procedures, early warning methods, infrastructures, location choice, and markets; 5. Create short-, medium- and long-term projections tools for the industry fisheries as well as policy makers to more effectively promote blue growth of aquaculture and fisheries in different regions; 6. Consider market-level responses to changes (both positive and negative) in commodity availability as a result of climate change; 7. Formulate viable autonomous adaptation strategies within the industries and for policy to circumvent/prevent perceived risks or to access future opportunities; 8. Effectively communicate these findings and tools to potential end-users and relevant stakeholders.

### Climate change and European aquatic RESources

No	Name	Country
1	UNIVERSITAET HAMBURG	DE
2	THE SECRETARY OF STATE FOR ENVIRONMENT, FOOD AND	
	RURAL AFFAIRS	UK
3	CONSORZIO NAZIONALE INTERUNIVERSITARIO PER LE	
	SCIENZE DEL MARE	ΙΤ
4	DANMARKS TEKNISKE UNIVERSITET	DK
5	HELLENIC CENTRE FOR MARINE RESEARCH	EL
6	INSTITUTO ESPANOL DE OCEANOGRAFIA	ES
7	INSTITUT FRANCAIS DE RECHERCHE POUR L'EXPLOITATION	
	DE LA MER	FR
8	Longline Environment Ltd	UK
9	NATIONAL UNIVERSITY OF IRELAND, GALWAY	ΙE
10	PLYMOUTH MARINE LABORATORY	UK
11	SVERIGES METEOROLOGISKA OCH HYDROLOGISKA INSTITUT	SE
12	UNIVERSITY OF HULL	UK
13	RODGER HAMISH	ΙE
14	ZACHODNIOPOMORSKI UNIWERSYTET TECHNOLOGICZNY W	
	SZCZECINIE	PL
15	INSTITUTO PORTUGUES DO MAR E DA ATMOSFERA IP	PT
16	STICHTING DIENST LANDBOUWKUNDIG ONDERZOEK	NL
17	HAVFORSKNINGSINSTITUTTET	NO
18	INSTITUTUL NATIONAL DE CERCETARE-DEZVOLTARE DELTA	
	DUNARII	RO
19	AGENCIA ESTATAL CONSEJO SUPERIOR DE	
	INVESTIGACIONES CIENTIFICAS	ES
20	JOHANN HEINRICH VON THUENEN-INSTITUT,	
	BUNDESFORSCHUNGSINSTITUT FUER LAENDLICHE RAEUME,	
	WALD UND FISCHEREI	DE
21	MERSIN UNIVERSITESI	TR
22	PELAGIC FREEZER TRAWLER ASSOCIATION	NL
23	KILIC DENIZ URUNLERI URETIMI IHRACAT ITHALAT VE	
	TICARET AS	TR
24	COOPERATIVE KOTTERVISSERIJ NEDERLAND UA	NL
25	INSKIE CENTRUM RYBACTWA SPOLKA ZOO	PL
26	Sagremarisco-Viveiros de Marisco Lda	PT

#### ClimeFish

# Co-creating a decision support framework to ensure sustainable fish production in Europe under climate change

Framework: Horizon 2020 Duration: 48 months

**Project number:** 677039 **Total Cost:** € 5,195,216.25

**Call:** H2020-BG-2015-2 **EU Contribution:** € 5,000,000.00

**Instrument:** Consortium: 21 participants

Research and Innovation action **Project Coordinator:** UNIVERSITETET I TROMSOE,

**Start date:** 2016/04/01 NO

**End date:** 2020/03/31

#### Abstract

The overall goal of ClimeFish is to help ensure that the increase in seafood production comes in areas and for species where there is a potential for sustainable growth, given the expected developments in climate, thus contributing to robust employment and sustainable development of rural and coastal communities. The underlying biological models are based on single species distribution and production, as well as multispecies interactions. Forecasting models will provide production scenarios that will serve as input to socio-economic analysis where risks and opportunities are identified, and early warning methodologies are developed. Strategies to mitigate risk and utilize opportunities will be identified in co-creation with stakeholders, and will serve to strengthen the scientific advice, to improve long term production planning and the policy making process. ClimeFish will address 3 production sectors through 16 case studies involving 25 species, and study the predicted effects of 3 pre-defined climate scenarios. For 7 of these cases ClimeFish will develop specific management plans (MPs) coherent with the ecosystem approach and based on a results-based scheme that will allow regulators, fishers and aquaculture operators to anticipate, prepare and adapt to climate change while minimizing economic losses and social consequences. A guideline for how to make climate-enabled MPs will be produced, and published as a low-level, voluntary European standard after a consensusbased open consultation process. As a container for the models, scenarios and MPs ClimeFish will develop the ClimeFish Decision Support Framework (DSF) which also contains the ClimeFish Decision Support System (DSS); a software application with capabilities for what-if analysis and visualization of scenarios. The presence of key international stakeholders in the project will ensure quality and relevance of the project outputs thus ensuring uptake and significant impact also after project and other technologies.

### ClimeFish

## Project's Participants

# Co-creating a decision support framework to ensure sustainable fish production in Europe under climate change

No	Name	Country
1	UNIVERSITETET I TROMSOE	NO
2	Memorial University of Newfoundland	CA
3	AVS CHILE SOCIEDAD ANONIMA	CL
4	Biologicke centrum AV CR, v. v. i.	CZ
5	INTERNATIONAL COUNCIL FOR THE EXPLORATION OF THE SEA	DK
6	SP/F SYNTESA	FO
7	Fédération Européenne des Producteurs Aquacoles	FR
8	BRANDENBURGISCHE TECHNISCHE UNIVERSITAT COTTBUS-	
	SENFTENBERG	DE
9	HELLENIC CENTRE FOR MARINE RESEARCH	EL
10	NEMZETI AGRARKUTATASI ES INNOVACIOSKOZPONT	HU
11	MATIS OHF	IS
12	FOOD AND AGRICULTURE ORGANIZATION OF THE UNITED	
	NATIONS FAO	IT
13	UNIVERSITA CA' FOSCARI VENEZIA	IT
14	HAVFORSKNINGSINSTITUTTET	NO
15	NOFIMA AS	NO
16	CENTRO TECNOLOGICO DEL MAR - FUNDACION CETMAR	ES
17	AGENCIA ESTATAL CONSEJO SUPERIOR DE INVESTIGACIONES	
	CIENTIFICAS	ES
18	STOCKHOLMS UNIVERSITET	SE
19	THE UNIVERSITY COURT OF THE UNIVERSITY OF ABERDEEN	UK
20	THE UNIVERSITY OF STIRLING	UK
21	TRUONG DAI HOC NHA TRANG	VN

#### **COLUMBUS**

# Monitoring, Managing and Transferring Marine and Maritime Knowledge for Sustainable Blue Growth

Framework: Horizon 2020 **Duration:** 36 months

**Project number:** 652690 **Total Cost:** € 3,997,488.00

**Call:** H2020-BG-2014-1 **EU Contribution:** € 3,997,488.00

**Instrument: Consortium:** 26 participants

Coordination & support action **Project Coordinator:** Bord lascaigh Mhara (BIM),

Start date: 2015/03/01 Ireland)

End date: 2018/02/28 Project Strategic and Operational Leader: AquaTT, IE

#### **Abstract**

We are standing at the dawn of a century that will be largely affected by how we as a society are able to manage our oceans and their resources. Marine and Maritime Research has a critical role to play in developing our understanding of the seas and advanced technology so that we can develop their economic potential in a sustainable manner.

The COLUMBUS project intends to capitalise on the EC's significant investment in marine research by ensuring accessibility and uptake of research Knowledge Outputs by end-users (policy, industry, science and wider society). COLUMBUS will ensure measurable value creation from research investments contributing to sustainable Blue Growth within the timeframe of the project. Adopting proven methodologies and building on significant past work, COLUMBUS will first identify end-user needs and priorities. It will then set about identifying and collecting "Knowledge Outputs" from past and current EC projects. Rigorous analysis will take place to identify specific applications and end-users. Transfer will be achieved and measured through tailor-made knowledge transfer. All knowledge collected will be made accessible through the pre-existing Marine Knowledge Gate (www.kg.eurocean.org).

A network of 9 Competence Nodes, each with a "Knowledge Fellow" and support team across Europe will provide the necessary critical mass (470pm of effort) to ensure full thematic and spatial coverage. COLUMBUS will also carry out strategic actions to enhance the visibility and impact of research to stakeholders and European Citizen's. Furthermore working with funding agencies and stakeholders, COLUMBUS will examine the feasibility of improved systems and processes to ensure measurable value creation from research.

To achieve the above, COLUMBUS has brought together a multi-disciplinary, multi-stakeholder team representing all aspects of the research value chain from funding agencies to end-users. Key strategic initiatives and networks further strengthen and provide a strong vehicle for project legacy.

## COLUMBUS



# Monitoring, Managing and Transferring Marine and Maritime Knowledge for Sustainable Blue Growth

No	Name	Country
1	BORD IASCAIGH MHARA (BIM)	IE
2	AquaTT UETP Ltd (AquaTT) LTD	IE
3	FUNDACAO EUROCEAN (EUROCEAN)	PT
4	DANMARKS TEKNISKE UNIVERSITET (DTU)	DK
5	FORSCHUNGSZENTRUM JUELICH GMBH (Juelich) GMBH	DE
6	MARINE SOUTH EAST (MARINE SOUTH EAST)	UK
7	PANAGIOTIS CHRISTOFILOGIANNIS - IOANA TAVLA (AQUARK) OE	EL
8	SMARTBAY IRELAND LIMITED (SMARTBAY IRELAND LIMITED)	IE
9	CONSORCIO PARA EL DISENO, CONSTRUCCION, EQUIPAMIENTO Y EXPLOTACION DE LA PLATAFORMA OCEANICA DE CANARIAS (PLOCAN)	ES
10	SOCIEDAD PARA EL FOMENTO DE LA INNOVACION TECNOLOGICA S.LINNOVATEC (INNOVATEC) SL	ES
11	VLAAMS INSTITUUT VOOR DE ZEE VZW (VLIZ) VZW	BE
12	THE SECRETARY OF STATE FOR ENVIRONMENT, FOOD AND RURAL AFFAIRS (CEFAS)	UK
13	EUROGOOS AISBL (EuroGOOS AISBL)	BE
14	CENTRO TECNOLOGICO DEL MAR - FUNDACION CETMAR (CETMAR)	ES
15	AQUATERA LIMITED (Aquatera) LTD	UK
16	SEASCAPE CONSULTANTS LTD (SEASCAPE CONSULTANTS LTD)	UK
17	European Council for Maritime Applied R&D Association (ECMAR) VZW	BE
18	EUROPEAN AQUACULTURE SOCIETY (EAS)	BE
19	UNIVERSITE PIERRE ET MARIE CURIE - PARIS 6 (UPMC)	FR
20	NATURAL ENVIRONMENT RESEARCH COUNCIL (NERC)	UK
21	Europas Maritime Udviklingscenter (MDCE)	DK
22	SOCIETE D'EXPLOITATION DU CENTRE NATIONAL DE LA MER (NAUSICAA)	FR
23	NORGES TEKNISK-NATURVITENSKAPELIGE UNIVERSITET NTNU (NTNU)	NO
24	Unitatea Executiva pentru Finantarea Invatamantului Superior, a Cercetarii, Dezvoltarii si Inovarii (UEFISCDI)	RO
25	CENTER OF MARITIME TECHNOLOGIES EV (CMT) EV	DE
26	INTERNATIONAL COUNCIL FOR THE EXPLORATION OF THE SEA (ICES)	DK

#### **CONCHA**

# The construction of early modern global Cities and oceanic networks in the Atlantic: An approach via OceaN's Cultural HeritAge

Framework: Horizon 2020 Duration: 48 months

**Project number:** 777998 **Total Cost:** € 778,500.00

**Call:** H2020-MSCA-RISE-2017 **EU Contribution:** € 778,500.00

Instrument: MSCA-RISE Consortium: 11 participants

Start date: 2018/01/01 Project Coordinator: UNIVERSIDADE NOVA DE

End date: 2021/12/31 LISBOA, PT

#### **Abstract**

CONCHA's main goal is to explain the different ways port cities developed around the Atlantic rim from the late 15th and early 16th century in relation to differing global, regional, and local ecological and economic environments. This analysis will be framed around a distinction between two separate navigational systems that existed in the Atlantic during the age of sail (1400-1800): the equatorial passage and the North Atlantic passage. Speaking to different literatures on port cities in the Atlantic, and environmental history, CONCHA aims to produce an Atlantic history of seaports in which the ocean - its ecosystems and species – is included as a dynamic player. CONCHA analyses the history of seaports using historical data as well as geomorphological, environmental, and archaeological studies. As case studies, CONCHA uses different locations in Northern Europe, North America, Iberia, the Atlantic archipelagos, Brazil and Colombia, which were central nodes in the circulation of people, resources, and knowledge in the early modern Atlantic world. Academically, one purpose of CONCHA is to provide, through academic exchange and participation in research missions, highly specialized training to senior and junior scholars and technicians from the different institutions and countries involved in the project. Another important objective of CONCHA is to develop historical knowledge for heritage purposes. Besides organizing academic workshops and publications, therefore, CONCHA aims to educate by involving the public in historical research by offering lecture series and exhibitions, and by assisting public institutions in the development of heritage conservation and tourism.

### **CONCHA**

# The construction of early modern global Cities and oceanic networks in the Atlantic: An approach via OceaN's Cultural HeritAge

No	Name	Country
1	UNIVERSIDADE NOVA DE LISBOA	PT
2	ASSOCIACAO PARA AS CIENCIAS DO MAR APCM	PT
3	OMA - OBSERVATORIO DO MAR DOS ACOREACORES	PT
4	UNIVERSIDAD PABLO DE OLAVIDE	ES
5	THE PROVOST, FELLOWS, FOUNDATION SCHOLARS & THE OTHER MEMBERS OF BOARD OF THE COLLEGE OF THE HOLY & UNDIVIDED TRINITY OF QUEEN ELIZABETH NEAR DUBLIN	IRL
6	EVEHA INTERNATIONAL	FR
7	Instituto do Património Cultural	CV
8	FUNDACION UNIVERSIDAD DEL NORTE	CO
9	MAR AMBIENTE E PESCA ARTESANAL	STP
10	FUNDACAO UNIVERSIDADE FEDERAL DE SERGIPE	BR
11	OLD DOMINION UNIVERSITY RESEARCH FOUNDATION	US

#### **DiscardLess**

# Strategies for the gradual elimination of discards in European fisheries

Framework: Horizon 2020 Duration: 48 months

**Project number:** 633680 **Total Cost:** € 5.551.125,25

**Call:** H2020-SFS-2014-2 **EU Contribution:** € 5.000.000,00

**Instrument:** Consortium: 31 participants

Research and Innovation action **Project Coordinator:** Danmarks Tekniske

Start date: 2015/03/01 Universitet, Denmark

**End date:** 2019/02/28

#### **Abstract**

The European Union has committed to the gradual elimination of the discarding of unwanted catches in European fisheries. DiscardLess will help provide the knowledge, tools and technologies as well as the involvement of the stakeholders to achieve this goal. These will be integrated into Discard Mitigation Strategies (DMS) proposing cost-effective solutions at all stages of the seafood supply chain.

The first focus is on preventing the unwanted catches from ever being caught. This will promote changes in fishing gear using existing and innovative selectivity technology, and changes in fishing tactics based on fishers' and scientists' knowledge. The second focus is on making best use of the unavoidable unwanted catch. We will detail technical and marketing innovations from the deck, through the supply chain to the final market, including monitoring, traceability and valorisation components.

DiscardLess will evaluate the impacts of discarding on the marine environment, on the economy, and the fisheries communities and across the wider society. We will evaluate these impacts before, during and after the implementation of the landing obligation, allowing comparison between intentions and outcomes.

DiscardLess will describe the changes in management and the associated governance structures needed to cement the process. All these innovations will be combined in integrated Internet based interactive programs (DMS toolbox) that will help fishers to evaluate the present and future situation and to take a more qualified decision of how to adjust to the new regime. Also, we will disseminate the outcome of the project and maximize knowledge transfer across Europe through an educational environment — teaching the next generation — as well as more conventional routes.

### **DiscardLess**

# Strategies for the gradual elimination of discards in European fisheries

No	Name	Country
1	DANMARKS TEKNISKE UNIVERSITET	DK
2	INSTITUT FRANCAIS DE RECHERCHE POUR L'EXPLOITATION DE LA MER	FR
3	INSTITUTO ESPANOL DE OCEANOGRAFIA	ES
4	UNIVERSITETET I BERGEN	NO
5	UNIVERSITY OF STRATHCLYDE	UK
6	KOBENHAVNS UNIVERSITET	DK
7	UNIVERSITE DE BRETAGNE OCCIDENTALE	FR
8	SEA FISH INDUSTRY AUTHORITY	UK
9	MARINE SCOTLAND	UK
10	FOOD AND AGRICULTURE ORGANIZATION OF THE UNITED NATIONS FAO	IT
11	SIMRAD SPAIN SLU	ES
12	HAMPIDJAN HF	IS
13	SAFETYNET TECHNOLOGIES LIMITED	UK
14	MARINE INSTITUTE	IE
15	IOANNA N.ARGYROU SIMBOULOI EPICHEIR ISIAKIS ANAPTYXIS ETAIREIA PERIORISMENIS EYTHYNIS	EL
16	AQUIMER	FR
17	IMAR- INSTITUTO DO MAR	PT
18	THE SECRETARY OF STATE FOR ENVIRONMENT, FOOD AND RURAL AFFAIRS	UK
19	MATIS OHF	IS
20	MAREL HF	IS
21	SHIPCON SP ZOO	PL
22	TRACE WILDLIFE FORENSICS NETWORK LIMITED	UK
23	FUNDACION AZTI - AZTI FUNDAZIOA	ES
24	BARNA SA	ES
25	NUTRITION SCIENCES NV	BE
26	UNIVERSITETET I TROMSOE	NO
27	IRISH OBSERVER NETWORK LIMITED	IE
28	FISHFIX	BE
29	INSTITUT SUPERIEUR DES SCIENCES AGRONOMIQUES, AGROALIMENTAIRES, HORTICOLES ET DU PAYSAGE	FR
30	ALPHAFILM & KOMMUNIKATION APS	DK
31	MEMORIAL UNIVERSITY OF NEWFOUNDLAND	CA

#### **EMERTOX**

### Emergent Marine Toxins in the North Atlantic and Mediterranean: New Approaches to Assess their Occurrence and Future Scenarios in the Framework of Global Environmental Changes

Framework: Horizon 2020 Duration: 48 months

**Project number:** 778069 **Total Cost:** € 702,000.00

**Call:** H2020-MSCA-RISE-2017 **EU Contribution:** € 702,000.00

**Instrument:** Consortium: 14 participants

MSCA-RISE Project Coordinator: CIIMAR - Centro

Start date: 2018/03/01 Interdisciplinar de Investigação Marinha e

End date: 2022/02/28 Ambiental, PT

#### **Abstract**

EMERTOX aims at mapping the actual situation in emergent marine toxins and the producing organisms, developing new approaches to assess their occurrence and predicting the possible future scenarios in the framework of global warming. The partnership, formed by a multidisciplinary team, will produce a joint research and innovation project that will exploit the complementary expertise of the participants and will create synergies among them.

#### The main objectives are:

- 1- to assess the current situation on potentially harmful algae and bacteria and the relevant emerging toxins in 8 countries belonging to different but geographically connected areas (Mediterranean Sea and North Atlantic);
- 2- to develop innovative approaches to sample, and analyse the producing organisms and their toxins by chemical and biological methods including immunoassays and sensors;
- 3- to estimate different future scenarios based on molecular data (routes of dispersion) and modelling.

#### **EMERTOX**

Emergent Marine Toxins in the North Atlantic and Mediterranean: New Approaches to Assess their Occurrence and Future Scenarios in the Framework of Global Environmental Changes

No	Name	Country
1	CIIMAR - Centro Interdisciplinar de Investigação Marinha e	PT
	Ambiental	
2	UNIVERSIDAD DE SANTIAGO DE COMPOSTELA	ES
3	Q TECHNOLOGIES LTD	UK
4	UNIVERSITA DEGLI STUDI DI TRIESTE	IT
5	THE QUEEN'S UNIVERSITY OF BELFAST	UK
6	MARINE BIOLOGICAL ASSOCIATION OF THE UNITED	UK
	KINGDOM	
7	INSTITUT FRANCAIS DE RECHERCHE POUR L'EXPLOITATION	FR
	DE LA MER	
8	AGUAS DE GAIA EM SA	PT
9	Institut National des Sciences et Technologies de la Mer	TN
10	APPLIED GENOMICS LTD	UK
11	E&H SERVICES AS	CZ
12	NATURAL BIOTEC SL	ES
13	UNIVERSIDADE DE CABO VERDE	CV
14	UNIVERSITE CHOUAIB DOUKKALI	MA

#### **FARFISH**

# Responsive Results-Based Management and capacity building for EU Sustainable Fisheries Partnership Agreement- and international waters

Framework: Horizon 2020 End date: 2021/05/31

**Project number:** 727891 **Duration:** 48 months

**Call:** H2020-SFS-2016-2 **Total Cost:** € 5,098,062.50

**Instrument:** Research and Innovation **EU Contribution:** € 4,999,960.00

action Consortium: 22 participants

Start date: 2017/06/01 Project Coordinator: MATIS OHF, IS

#### **Abstract**

The objective of FarFish is to improve knowledge on and management of EU fisheries outside Europe, while contributing to sustainability and long term profitability. 21% of EU catches originate from non-EU waters. These fisheries are often poorly regulated, management decisions are sometimes based on limited knowledge and enforcement capabilities, compliance and trust between stakeholders tend to lack.

FarFish will address these shortcomings in a multidisciplinary and innovative way by focusing on six diverse case studies, four in Sustainable Fisheries Partnership Agreement (SFPA) waters and two in international waters. Firstly, FarFish will analyse biological, ecological, technological, economic, political and social impacts of EU fisheries in the case studies to advance knowledge and promote sustainable and profitable exploitation. Secondly, introduce Results-Based Management approaches and new decision support tools into these fisheries and test their applicability in collaboration with stakeholders. Thirdly, build capacities in fisheries management and related disciplines amongst stakeholders. The results of FarFish will both have immediate and long-term application. FarFish includes diverse groups of stakeholders, EU and third country fleets representatives, scientists, decision makers, Regional Fisheries Management Organisations (RFMOs), relevant industries and stakeholders from areas outside the case studies but of importance for the EU fleet, forming a platform for future cooperation between EU and third countries.

FarFish addresses the work programme by improving knowledge within the relevant fisheries, developing management tools and models, improving professional skills and sharing new findings in correspondence to the priorities of SFPAs, RFMOs and the CFP. FarFish will contribute to sustainable management, resilience and efficiency in the seafood value chains, increase European food security, boost long-term profitability and promote jobs.

#### **FARFISH**

Project's Participants

# Responsive Results-Based Management and capacity building for EU Sustainable Fisheries Partnership Agreement- and international waters

No	Name	Country
1	MATIS OHF	IS
2	UNIVERSIDADE DE SAO PAULO	BR
3	INSTITUTO NACIONAL DE DESENVOLVIMENTO DAS PESCAS	CV
4	SYNTESA APS	DK
5	CONSEJO CONSULTIVO DE FLOTA DE LARGA DISTANCIA EN	ES
	AGUAS NO COMUNITARIAS	
6	HAFRANNSOKNASTOFNUNIN	IS
7	INSTITUT MAURITANIEN DE	MR
	RECHERCHESOCEANOGRAPHIQUES ET DES PECHES	
8	UNIVERSITE CADI AYYAD	MA
9	HAVFORSKNINGSINSTITUTTET	NO
10	UNIVERSITETET I TROMSOE	NO
11	NOFIMA AS	NO
12	CENTRO DE CIENCIAS DO MAR DO ALGARVE	PT
13	CONSERVATION AND RESEARCH OF WEST AFRICAN	SN
	AQUATIC MAMMALS (COREWAM)	
14	INSTITUT SENEGALAIS DE RECHERCHES AGRICOLES	SN
15	SEYCHELLES FISHING AUTHORITY	SC
16	AGENCIA ESTATAL CONSEJO SUPERIOR DE	ES
	INVESTIGACIONES CIENTIFICAS	
17	ASOCIACION NACIONAL DE FABRICANTES DE CONSERVAS DE	ES
	PESCADOS Y MARISCOS-CENTRO TECNICO NACIONAL DE	
	CONSERVACION DE PRODUCTOS DE LA PESCA	
18	CENTRO TECNOLOGICO DEL MAR - FUNDACION CETMAR	ES
19	ORGANIZACION DE PRODUCTORES DE PESCA FRESCA DEL	ES
	PUERTO Y RIA DE MARIN	
20	SHUTTLE THREAD LIMITED	UK
21	UNIVERSITY OF PORTSMOUTH HIGHER EDUCATION	UK
	CORPORATION	

#### **GENIALG**

#### GENetic diversity exploitation for Innovative macro-ALGal biorefinery

Framework: Horizon 2020 Duration: 48 months

**Project number:** 727892 **Total Cost:** € 12,224,237.50

**Call:** H2020-BG-2016-1 **EU Contribution:** € 10,885,817.25

**Instrument:** Innovation action **Consortium:** 19 participants

Start date: 2017/01/01 Project Coordinator: CENTRE NATIONAL DE LA

End date: 2020/12/31 RECHERCHE SCIENTIFIQUE CNRS, FR

#### **Abstract**

The GENIALG project aims to boost the Blue Biotechnology Economy (BBE) by increasing the production and sustainable exploitation of two high-vielding species of the EU seaweed biomass: the brown alga Saccharina latissima and the green algae Ulva spp. GENIALG will demonstrate the economic feasibility and environmental sustainability of cultivating and refining seaweed biomass in multiple use demanded products of marine renewable origin. The consortium integrates available knowledge in algal biotechnology and ready to use reliable eco-friendly tools and methods for selecting and producing high yielding strains in economically feasible quantities and qualities. By cracking the biomass and supplying a wide diversity of chemical compounds for existing as well as new applications and markets, GENIALG will anticipate the economic, social and environmental impacts of such developments in term of economic benefit and job opportunities liable to increase the socio-economic value of the blue biotechnology sector. In a larger frame, conservation and biosafety issues will be addressed as well as more social aspects such as acceptability and competition for space and water regarding other maritime activities. To achieve these objectives GENIALG will foster a trans-sectorial and complementary consortium of scientists and private companies. • GENIALG will involve a diversity of private companies already positioned in the seaweed sector individually for different applications (texturants, feed, agriculture, bioplastics, pharmaceuticals, personal care products...) in order to strengthen interactions for developing a bio-refinery concept and accelerate efficient and sustainable exploitation of seaweed biomass to bring new highvalue products on the market.

#### **GENIALG**

### Project's Participants

#### GENetic diversity exploitation for Innovative macro-ALGal biorefinery

No	Name	Country
1	CENTRE NATIONAL DE LA RECHERCHE SCIENTIFIQUE CNRS	FR
2	THE SCOTTISH ASSOCIATION FOR MARINESCIENCE LBG	UK
3	SEAWEED ENERGY SOLUTIONS AS	NO
4	ALGAPLUS PRODUCAO E COMERCIALIZACAO DE ALGAS E	
	SEUS DERIVADOS LDA	PT
5	STICHTING WAGENINGEN RESEARCH	NL
6	SINTEF FISKERI OG HAVBRUK AS	NO
7	INEGI - INSTITUTO DE CIENCIA E INOVACAO EM	
	ENGENHARIA MECANICA E ENGENHARIA INDUSTRIAL	PT
8	AMADEITE SAS	FR
9	ALGAIA	FR
10	UNIVERSITY OF YORK	UK
11	LESSONIA	FR
12	LTD IOTA Pharmaceuticals Ltd	UK
13	BIOME TECHNOLOGIES BIOME TECHNOLOGIES PLC	UK
14	CIIMAR - Centro Interdisciplinar de Investigação Marinha e	
	Ambiental	PT
15	NATIONAL UNIVERSITY OF IRELAND GALWAY	ΙE
16	AquaTT UETP Ltd	ΙE
17	UNIVERSIDADE DE AVEIRO	PT
18	THE BIORENEWABLES DEVELOPMENT CENTRE LIMITED	UK
19	C-WEED AQUACULTURE SARL	FR

#### **INMARE**

# Industrial Applications of Marine Enzymes: Innovative screening and expression platforms to discover and use the functional protein diversity from the sea

Framework: Horizon 2020 Duration: 48 months

**Project number:** 634486 **Total Cost:** € 7.396.689,65

**Call:** H2020-BG-2014-2 **EU Contribution:** € 5.999.557,13

Instrument: Innovation action Consortium: 24 participants

Start date: 2015/04/01 Project Coordinator: Bangor University, UK

**End date:** 2019/03/31

#### **Abstract**

It is widely appreciated that biological resources from the marine environment represent a largely untapped potential for industrial enzymes. However, today only a very small fraction of marine enzymes have made it to industrial biocatalysis and commercialisation stage. The collaborative research project INMARE aims to address this by streamlining and shortening the pathways from discovery of new marine enzymes and bioactive compounds towards the development and commercialisation of industrial applications for targeted production of fine chemicals, drugs and in environmental clean-up.

INMARE stands for "Industrial Applications of Marine Enzymes: Innovative screening and expression platforms to discover and use the functional protein diversity from the sea" and brings together multidisciplinary expertise and facilities of academic and industry partners. The companies involved in the project are market leaders in enzyme production and biocatalysis processes designed to efficiently deliver safer (pharmaceuticals) cheaper (agriculture) and biobased (biopolymers) products. They also have an impressive track record in environmental clean-up technologies and are committed to promoting public understanding, awareness and dissemination of scientific research. To reach its objectives, the project will integrate following core activities: advanced technologies to access and sample unique marine biodiversity hotspots; state-of-the art technologies for construction of metagenomic libraries; innovative enzyme screening assays and platforms; cutting-edge sequence annotation pipelines and bioinformatics resources; high-end activity screening technology; bioanalytical and bioprocess engineering facilities and expertise, nanoparticlebiocatalysts; high-quality protein crystallization and structural analysis facilities and experts in IP management for biotechnology. While the project does not have a specific trans-Atlantic focus, marine genetic resources will be drawn among others from unique environments in the Atlantic (notably the Porcupine Bank in North Atlantic). Moreover, one of the global top contributors of protein structural data, the Faculty of Chemical Engineering from the University of Toronto (Canada), is one of the key partners involved in research activities across the INMARE project (via in kind contributions without EC funding). Finally, the international CLIB2021 cluster of companies and universities (including from Brazil, Canada and the US) will be playing an important role in disseminating the results of INMARE even broader across the Atlantic.

#### **INMARE**

Project's Participants

# Industrial Applications of Marine Enzymes: Innovative screening and expression platforms to discover and use the functional protein diversity from the sea

No	Name	Country
1	BANGOR UNIVERSITY	UK
2	UNIVERSITAET HAMBURG	DE
3	HEINRICH-HEINE-UNIVERSITAET DUESSELDORF	DE
4	CONSIGLIO NAZIONALE DELLE RICERCHE	IT
5	AGENCIA ESTATAL CONSEJO SUPERIOR DE INVESTIGACIONES CIENTIFICAS	ES
6	BAYER TECHNOLOGY SERVICES GMBH	DE
7	NOVOZYMES A/S	DK
8	UNIVERSITETET I BERGEN	NO
9	UNIVERSITY COLLEGE CORK, NATIONAL UNIVERSITY OF IRELAND, CORK	IE
10	VILNIAUS UNIVERSITETAS	LT
11	JACOBS UNIVERSITY BREMEN GGMBH	DE
12	PHARMAMAR, S.A.U.	ES
13	THE RESEARCH COMMITTEE OF THE TECHNICAL UNIVERSITY OF CRETE	EL
14	ALMA MATER STUDIORUM - UNIVERSITA DI BOLOGNA	IT
15	ASSOCIACAO DO INSTITUTO SUPERIOR TECNICO PARA A INVESTIGACAO E DESENVOLVIMENTO	PT
16	EVOCATAL GMBH	DE
17	INOFEA AG	CH
18	FACHHOCHSCHULE NORDWESTSCHWEIZ	CH
19	LONDON SCHOOL OF ECONOMICS AND POLITICAL SCIENCE	UK
20	CLUSTER INDUSTRIELLE BIOTECHNOLOGIE 2021 E.V.	DE
21	SEASCAPE CONSULTANTS LTD	UK
22	UNI RESEARCH AS	NO
23	UNIVERSITA DEGLI STUDI DI MILANO	IT
24	THE GOVERNING COUNCIL OF THE UNIVERSITY OF TORONTO	CA

#### **INTAROS**

#### **Integrated Artic observation system**

Framework: Horizon 2020 Duration: 60 months

**Project number:** 727890 **Total Cost:** € 15,490,066.78

**Call:** H2020-BG-2016-1 **EU Contribution:** € 15,490,066.78

**Instrument:** Consortium: 41 participants

Research and Innovation action Project Coordinator: STIFTELSEN NANSEN

Start date: 2016/12/01 SENTER FOR MILJOOG FJERNMALING, NO

**End date:** 2021/30/11

#### **Abstract**

The overall objective of INTAROS is to develop an integrated Arctic Observation System (iAOS) by extending, improving and unifying existing systems in the different regions of the Arctic. INTAROS will have a strong multidisciplinary focus, with tools for integration of data from atmosphere, ocean, cryosphere and terrestrial sciences, provided by institutions in Europe, North America and Asia. Satellite earth observation data plays an increasingly important role in such observing systems, because the amount of EO data for observing the global climate and environment grows year by year. In situ observing systems are much more limited due to logistical constraints and cost limitations. The sparseness of in situ data is therefore the largest gap in the overall observing system. INTAROS will assess strengths and weaknesses of existing observing systems and contribute with innovative solutions to fill some of the critical gaps in the in situ observing network. INTAROS will develop a platform, iAOS, to search for and access data from distributed databases. The evolution into a sustainable Arctic observing system requires coordination, mobilization and cooperation between the existing European and international infrastructures (in-situ and remote including space-based), the modelling communities and relevant stakeholder groups. INTAROS will include development of community-based observing systems, where local knowledge is merged with scientific data. An integrated Arctic Observation System will enable better-informed decisions and better-documented processes within key sectors (e.g. local communities, shipping, tourism, fisheries), in order to strengthen the societal and economic role of the Arctic region and support the EU strategy for the Arctic and related maritime and environmental policies.

#### **INTAROS**



#### **Integrated Artic observation system**

No	Name	Country
1	STIFTELSEN NANSEN SENTER FOR MILJOOG FJERNMALING	NO
2	UNIVERSITETET I BERGEN	NO
3	HAVFORSKNINGSINSTITUTTET	NO
4	STOCKHOLMS UNIVERSITET	SE
5	ALFRED-WEGENER-INSTITUT HELMHOLTZ- ZENTRUM FUER POLAR-	
	UND MEERESFORSCHUNG	DE
6	INSTYTUT OCEANOLOGII POLSKIEJ AKADEMII NAUK	PL
7	DANMARKS TEKNISKE UNIVERSITET	DK
8	AARHUS UNIVERSITET	DK
9	Geological Survey of Denmark and Greenland	DK
10	ILMATIETEEN LAITOS	FI
11	University Centre in Svalbard	NO
12	NORDISK FOND FOR MILIØ OG UDVIKLING	DK
13	SVERIGES METEOROLOGISKA OCH HYDROLOGISKA INSTITUT	SE
14	THE UNIVERSITY OF SHEFFIELD	UK
15	NATIONAL UNIVERSITY OF IRELAND MAYNOOTH	ΙE
16	INSTITUT FRANCAIS DE RECHERCHE POUR L'EXPLOITATION DE LA	
	MER	FR
17	MAX-PLANCK-GESELLSCHAFT ZUR FORDERUNG DER	
	WISSENSCHAFTEN EV	DE
18	EUROGOOS AISBL	BE
19	FUNDACAO EUROCEAN	PT
20	UNIVERSIDAD POLITECNICA DE MADRID	ES
21	UNIVERSITAET BREMEN	DE
22	UNIVERSITAET HAMBURG	DE
23	NORUT NORTHERN RESEARCH INSTITUTE AS	NO
24	TERRADUE SRL	ΙΤ
25	GRONLANDS NATURINSTITUT	GL
26	THE OPEN UNIVERSITY	UK
27	NORSK INSTITUTT FOR VANNFORSKNING	NO
28	CENTRE NATIONAL DE LA RECHERCHE SCIENTIFIQUE CNRS	FR
29	HELSINGIN YLIOPISTO	FI
30	HELMHOLTZ ZENTRUM POTSDAM	
	DEUTSCHESGEOFORSCHUNGSZENTRUM GFZ	GFZ
31	ASSOCIATION POUR LA RECHERCHE ET LE DEVELOPPEMENT DES	
	METHODES ET PROCESSUS INDUSTRIELS	FR
32	Instytut Geofizyki Polskiej Akademii Nauk	PL
33	UNIWERSYTET SLASKI	PL

34	BARCELONA SUPERCOMPUTING CENTER - CENTRO NACIONAL DE	
	SUPERCOMPUTACION	ES
35	DNV GL AS	NO
36	ALL-RUSSIAN RESEARCH INSTITUTE OF HYDROMETEOROLOGICAL	
	INFORMATION-WORLD DATA CENTRE	RU
37	Scientific foundation Nansen International Environmental and	
	Remote Sensing Centre	RU
38	WOODS HOLE OCEANOGRAPHIC INSTITUTION	US
39	THE REGENTS OF THE UNIVERSITY OF CALIFORNIA	US
40	UNIVERSITE LAVAL	CA
41	INSTITUTE OF REMOTE SENSING AND DIGITAL EARTH - CHINESE	
	ACADEMY OF SCIENCE	CN

#### **MARIBE**

#### Marine Investment for the Blue Economy

Framework: Horizon 2020 Duration: 18 months

**Project number:** 652629 **Total Cost:** € 1,977,951.25

**Call:** H2020-BG-2014-1 **EU Contribution:** € 1,977,951.25

**Instrument:** Consortium: 10 participants

Start date: 2015/03/01 National University of Ireland, Cork (UCC), IE

**End date:** 2016/08/31

#### **Abstract**

The primary aim of the MARIBE project is to unlock the sustainable growth and jobs potential of Blue Growth (BG). This aim will be fulfilled by identifying the most promising business models in the BG economy (in particular multi-purpose platforms). Plans will be developed to overcome their challenges, propose how these models can be advanced to large scale pilot stage and test the feasibility of the recommended business models. The pilots will be enabled by securing support from the investment community and liaising with the EC to implement the outcomes of the project and continue funding support via Horizon 2020. The project will produce toolkits and guidelines for BG stakeholders and the investment community with regards to the BG socio-economic trends and technical and non-technical challenges as well as reports on best business models for BG.

The MARIBE consortium has connections to H2-Ocean, TROPOS and MERMAID but has the desired degree of independence and impartiality to ensure neutral business model assessment. The partnership comprises the full spectrum of academic and SME partners, including expertise from all relevant BG sectors. It includes the Food and Agriculture Organisation of the United Nations as a key global partner to secure a Trans-Atlantic pilot and Business Models Inc. as the business model expert. Business models will first be mapped according to best practice methodology, cognisant of their value chains. The technical and non-technical challenges of the business will be measured based on their life cycle stage and proposals made for their mitigation. Key stakeholders from all sectors of Blue Economy to BG will be engaged, as well as key investors. Following these reviews and engagements, four Think Tank workshops will be organised to envision innovative new business models, in particular considering multipurpose platforms. A final workshop will then define implementation plans for best business model for each of the four basins.

#### **MARIBE**

#### Marine Investment for the Blue Economy

No	Name	Country
1	UNIVERSITY COLLEGE CORK, NATIONAL UNIVERSITY OF	IE
	IRELAND, CORK (UCC)	1-
2	STICHTING DIENST LANDBOUWKUNDIG ONDERZOEK (DLO)	NL
3	ECOAST RESEARCH CENTRE OSTEND BVBA (ECOAST) BVBA	BE
4	SWANSEA UNIVERSITY (PRIFYSGOL ABERTAWE)	UK
5	HERIOT-WATT UNIVERSITY (HWU)	UK
6	UNIVERSIDAD DE CANTABRIA (UC)	ES
7	AQUABIOTECH LIMITED (ABT) LTD	MT
8	FOOD AND AGRICULTURE ORGANIZATION OF THE UNITED	ΙΤ
	NATIONS (FAO)	11
9	BUSINESS MODELS INC BV (BMINC.) BV	NL
10	BVG ASSOCIATES LIMITED (BVG Associates Ltd.)	UK

#### **MARSU**

# MARine atmospheric Science Unravelled: Analytical and mass spectrometric techniques development and application

Framework: Horizon 2020 Duration: 48 months

**Project number:** 690958 **Total Cost:** € 1,269,000.00

**Call:** H2020-MSCA-RISE-2015 **EU Contribution:** € 1,080,000.00

Instrument: MSCA-RISE Consortium: 11 participants

Start date: 2016/02/01 Project Coordinator: CENTRE NATIONAL DE LA

End date: 2020/01/31 RECHERCHE SCIENTIFIQUE CNRS, FR

#### **Abstract**

MARSU is a collaborative (4 Member States , including one participant from the non-academic sector, and six Third Countries from South America, Africa and Asia) with the goal of gaining new knowledge and reducing the uncertainty about the effect of aerosols deriving from the air-sea exchange on climate and atmospheric composition connected to air pollution. The results from this key interdisciplinary project will have impact on current and future industrial and legislative developments.

Aerosols and clouds have been identified as one of the largest uncertainties in our understanding of the atmospheric and the climate system. In this context, the MARSU team will conduct experiments in dedicated set-ups throughout the member organisations; combined with efforts in the field to determine the organic composition of aerosol particles and its evolution in the Marine Boundary Layer (MBL) and to come up with a revised picture of the effect of sea salt aerosols on climate. Major gaps of knowledge exist in relation to the organic matter present in aerosol particles, which originates from the organic microlayer at the surface of the ocean. The characterization of the organic content of the aerosol particles, the evolution of the chemical and physical properties, interaction with air pollution and effects on climate-related topics form the foci of this proposal.

The MARSU consortium brings together world-leading expert scientists conducting cuttingedge laboratory, simulation chamber studies, field sampling and analysis, analytical method development, and modelling studies. A comprehensive and integrated approach to the development of researchers in the key areas of atmospheric science and their link to the oceans and climate is essential to support industrial and legislative development.

MARSU will benefit from the strong involvement of a full partner from the private sector who will host researchers and develop research in close collaboration in other MARSU's partners.

#### **MARSU**

#### MARine atmospheric Science Unravelled: Analytical and mass spectrometric techniques development and application

No	Name	Country
1	CENTRE NATIONAL DE LA RECHERCHE SCIENTIFIQUE CNRS	FR
2	LEIBNIZ INSTITUT FUER TROPOSPHAERENFORSCHUNG e.V.	DE
3	IONICON ANALYTIK GMBH	AT
4	UNIVERSITE D'ORLEANS	FR
5	UNIVERSITE LYON 1 CLAUDE BERNARD	FR
6	CONSEJO NACIONAL DE INVESTIGACIONES CIENTIFICAS Y	AR
	TECNICAS (CONICET)	
7	INSTITUTO NACIONAL DE METEOROLOGIA E GEOFISICA	CV
8	UNIVERSITE MOHAMMED V DE RABAT	MA
9	FUDAN UNIVERSITY	CN
10	SHANDONG UNIVERSITY	CN
11	Institute of Urban Environment, Chinese Academy of Sciences	CN

#### **MERCES**

#### **Marine Ecosystem Restoration in Changing European Seas**

Framework: Horizon 2020 End date: 2020/05/31

Project number: 689518 Duration: 48 months

**Call:** H2020-SC5-2015-two-stage **Total Cost:** € 6,651,118.20

**Topic:** SC5-07-2015 **EU Contribution:** € 6,651,118.20

**Instrument:** Consortium: 30 participants

Research and Innovation action Project Coordinator: UNIVERSITA POLITECNICA

Start date: 2016/06/01 DELLE MARCHE, IT

#### **Abstract**

The project MERCES is focused on the restoration of different degraded marine habitats, with the aim of: 1) assessing the potential of different technologies and approaches; 2) quantifying the returns in terms of ecosystems services and their socio-economic impacts; 3) defining the legal-policy and governance frameworks needed to optimize the effectiveness of the different restoration approaches. Specific aims include: a) improving existing, and developing new, restoration actions of degraded marine habitats; b) increasing the adaptation of EU degraded marine habitats to global change; c) enhancing marine ecosystem resilience and services; d) conducting cost-benefit analyses for marine restoration measures; e) creating new industrial targets and opportunities. To achieve these objectives MERCES created a multi-disciplinary consortium with skills in marine ecology, restoration, law, policy and governance, socio-economics, knowledge transfer, dissemination and communication. MERCES will start from the inventory of EU degraded marine habitats (WP1), conduct pilot restoration experiments (WP2, WP3, WP4), assess the effects of restoration on ecosystem services (WP5). The legal, policy and governance outputs will make effective the potential of marine restoration (WP6) and one dedicated WP will assess the socio-economic returns of marine ecosystems' restoration (WP7). The transfer of knowledge and the links with the industrial stakeholders will be the focus of WP8. The results of MERCES will be disseminated to the widest audience (WP9). The project will be managed through a dedicated management office (WP10). MERCES will contribute to the Blue Growth by: i) improving the EU scientific knowledge on marine restoration, ii) contributing to EU Marine Directives; iii) implementing the Restoration Agenda, iv) enhancing the industrial capacity in this field, v) increasing the competitiveness of EU in the world market of restoration, and vi) offering new employment opportunities.

#### **MERCES**

#### Project's Participants

#### Marine Ecosystem Restoration in Changing European Seas

No	Name	Country
1	UNIVERSITA POLITECNICA DELLE MARCHE	IT
2	AGENCIA ESTATAL CONSEJO SUPERIOR DE INVESTIGACIONES CIENTIFICAS	ES
3	HELLENIC CENTRE FOR MARINE RESEARCH	EL
4	IMAR- INSTITUTO DO MAR	PT
5	ALFRED-WEGENER-INSTITUT HELMHOLTZ- ZENTRUM FUER POLAR- UND MEERESFORSCHUNG	DE
6	INSTITUT FRANCAIS DE RECHERCHE POUR L'EXPLOITATION DE LA MER	FR
7	NATIONAL UNIVERSITY OF IRELAND, GALWAY	ΙE
8	WAGENINGEN UNIVERSITY	NL
9	AALBORG UNIVERSITET	DK
10	ABO AKADEMI	FI
11	TARTU ULIKOOL	EE
12	FACULTY OF SCIENCE UNIVERSITY OF ZAGREB	HR
13	CONSORZIO NAZIONALE INTERUNIVERSITARIO PER LE SCIENZE DEL MARE	IT
14	UNIVERSITA DEL SALENTO	IT
15	STICHTING NIOZ, KONINKLIJK NEDERLANDS INSTITUUT VOOR ONDERZOEK DER ZEE	NL
16	ECOPATH INTERNATIONAL INITIATIVE ASOCIACION	ES
17	STICHTING KATHOLIEKE UNIVERSITEIT	NL
18	NORSK INSTITUTT FOR VANNFORSKNING	NO
19	NATURAL ENVIRONMENT RESEARCH COUNCIL	UK
20	ECOREACH SRL	IT
21	Median SCP	ES
22	STUDIO ASSOCIATO GAIA SNC DEI DOTTORI ANTONIO SARA E MARTINA MILANESE	IT
23	DEEP SEAS ENVIRONMENTAL SOLUTIONS LTD	UK
24	Marine Law and Ocean Policy Research Services Ltd	IE
25	WWF ITALIA	IT
26	WCMC LBG	UK
27	AKDENIZ KORUMA DERNEGI	TR
28	UNIVERSITAT DE BARCELONA	ES
29	HERIOT-WATT UNIVERSITY	UK
30	IODINE SPRL	BE

#### **MUSES**

#### Multi-Use in European Seas

Framework: Horizon 2020 End date: 2018/10/31

**Call:** H2020-BG-2016-1 **Total Cost:** € 1,987,603.88

**Topic:** BG-03-2016 **EU Contribution:** € 1,982,104.38

**Instrument:** Consortium: 10 participants

Coordination & support action Project Coordinator: MARINE SCOTLAND, UK

**Start date:** 2016/11/01

#### **Abstract**

The Multi-Use in European Seas (MUSES) project will review existing planning and consenting processes against international quality standards for MSP and compliance with EU Directives used to facilitate marine and coastal development in the EU marine area to ensure that they are robust, efficient and facilitate sustainable multi use of marine resources. The project will build knowledge of the appropriate techniques to minimize barriers, impacts and risks, whilst maximising local benefits, reducing gaps in knowledge to deliver efficiencies through integrated planning, consenting processes and other techniques. MUSES Project - 3 main pillars: 1. Regional overviews which take into account EU sea basins (Baltic Sea, North Sea, Mediterranean Sea, Black Sea and Eastern Atlantic) will be based on an analytical framework to facilitate adoption of a common approach across the sea basins. The progress in implementation of the concept of Multi-Uses in European Sea Basins will be assessed and key obstacles and drivers identified. 2. A comprehensive set of case studies of real and/or potential multi-use will be conducted and analysed to provide a complete spectrum of advantages in combining different uses of the sea. The case studies will create local stakeholder platforms to identify multi-use potentiality, opportunities and limitations. 3. Development of an Action Plan to address the challenges and opportunities for the development of Multi-Uses of oceans identified in the regional overviews and case studies. Provide recommendations for future action, taking into account national, regional and sea basin dimensions. The project will build on work undertaken in other studies including Mermaid, TROPOS, H2Ocean and SUBMARINER. MUSES project partners have direct links with related forums including The Ocean Energy Forum (OEF) which will assist understanding of many issues that need to be addressed at an EU level and could help facilitate and implement the OEF roadmap.

#### **MUSES**

#### Multi-Use in European Seas

No	Name	Country
1	MARINE SCOTLAND	UK
2	UNIVDUN UNIVERSITY OF DUNDEE	UK
3	SUBMARINER NETWORK FOR BLUE GROWTH EWIV	DE
4	INSTYTUT MORSKI W GDANSKU	PL
5	THETIS SPA	IT
6	CNR CONSIGLIO NAZIONALE DELLE RICERCHE	IT
7	HELLENIC CENTRE FOR MARINE RESEARCH	EL
8	FGF FUNDACAO GASPAR FRUTUOSO	PT
9	ECORYS NEDERLAND B.V.	NL
10	AWI ALFRED-WEGENER-INSTITUTHELMHOLTZ- ZENTRUM FUER POLAR- UND MEERESFORSCHUNG	DE

#### Nunataryuk

#### Permafrost thaw and the changing arctic coast: science for socioeconomic adaptation

Framework: Horizon 2020 **Duration:** 60 months

**Project number:** 633382 **Total Cost:** € 11.467.317,50

**Call:** H2020-BG-2017-1 **EU Contribution:** € 11.467.317,50

**Instrument:** Consortium: 28 participants

Research and Innovation action **Project Coordinator:** ALFRED-WEGENER-

Start date: 2017/11/01 INSTITUT HELMHOLTZ-ZENTRUM FUR POLAR-

End date: 2022/10/31 UND MEERESFORSCHUNG, DE

#### **Abstract**

Most human activity in the Arctic takes place along permafrost coasts, making them a key interface. They have become one of the most dynamic ecosystems on Earth because permafrost thaw is now exposing these coasts to rapid change: change that threatens the rich biodiversity, puts pressure on communities that live there and contributes to the vulnerability of the global climate system. NUNATARYUK will determine the impacts of thawing coastal and subsea permafrost on the global climate, and will develop targeted and co-designed adaptation and mitigation strategies for the Arctic coastal population. NUNATARYUK brings together world-leading specialists in natural science and socioeconomics to: (1) develop quantitative understanding of the fluxes and fates of organic matter released from thawing coastal and subsea permafrost; (2) assess what risks are posed by thawing coastal permafrost, to infrastructure, indigenous and local communities and people's health, and from pollution; (3) use this understanding to estimate the longterm impacts of permafrost thaw on global climate and the economy. NUNATARYUK will be guided by a Stakeholders' Forum of representatives from Arctic coastal communities and indigenous societies, creating a legacy of collaborative community involvement and a mechanism for developing and applying innovative evidence-based interventions to enable the sustainable development of the Arctic.

#### **Nunataryuk**

### Project's Participants

# Permafrost thaw and the changing arctic coast: science for socio-economic adaptation

No	Name	Country
1	ALFRED-WEGENER-INSTITUT HELMHOLTZ-ZENTRUM FUR	DE
	POLAR- UND MEERESFORSCHUNG	
2	STOCKHOLMS UNIVERSITET	SE
3	STICHTING VU	NL
4	CENTRE NATIONAL DE LA RECHERCHE SCIENTIFIQUE CNRS	FR
5	UNIVERSITE DE LA ROCHELLE	FR
6	UNIVERSITE LAVAL	CA
7	MAX-PLANCK-GESELLSCHAFT ZUR FORDERUNG DER WISSENSCHAFTEN EV	DE
8	OULUN YLIOPISTO	FI
9	DANMARKS TEKNISKE UNIVERSITET	DK
10	NORDREGIO	SE
11	STOFNUN VILHJALMS STEFANSSONAR	IS
12	UNIVERSITAT WIEN	AT
13	B. GEOS GMBH	AT
14	CONSIGLIO NAZIONALE DELLE RICERCHE	IT
15	UNIVERSITETET I OSLO	NO
16	INSTITUTO DE GEOGRAFIA E ORDENAMENTO DO	PT
47	TERRITORIO DA UNIVERSIDADE DELISBOA	
17	INTERNATIONALES INSTITUT FUER ANGEWANDTE SYSTEMANALYSE	AT
18	UNIVERSITAET HAMBURG	DE
19	UNIVERSITE LIBRE DE BRUXELLES	BE
20	NORGES TEKNISK-NATURVITENSKAPELIGE UNIVERSITET	NO
	NTNU	
21	UNIVERSITE DE VERSAILLES SAINT-QUENTIN-EN-YVELINES.	FR
22	STIFTELSEN GRID ARENDAL	NO
23	NORDURSLODAGATTIN EHF	IS
24	INFORMUS GMBH	DE
25	ACRI-HE	FR
26	SORBONNE UNIVERSITE	FR
27	HELMHOLTZ ZENTRUM POTSDAM DEUTSCHESGEOFORSCHUNGSZENTRUM GFZ	DE
28	STOCKHOLMS UNIVERSITET	SE
20	STOCKHOLIVIS DIVIVERSITET	JE

#### **PADDLE**

#### Planning in A liquiD worlD with tropicaL StakEs: solutions from an EU-Africa-Brazil perspective

Framework: Horizon 2020 **Duration:** 48 months

**Project number:** 734271 **Total Cost:** € 1,723,500.00

**Call:** H2020-MSCA-RISE-2016 **EU Contribution:** € 1,557,000.00

**Instrument:** Consortium: 18 participants

MSCA-RISE **Project Coordinator:** INSTITUT DE RECHERCHE

Start date: 2017/07/01 POUR LE DEVELOPPEMENT, FR

**End date:** 2021/06/30

#### **Abstract**

Marine environments are subject to growing pressures as traffic, increasing demand and changing land-use of coastal areas, seabed exploitation, dredging or mining, fishing, tourism, development of renewable energies, etc. Sustainably managed oceans and seas can contribute to economic growth and employment, and will allow the international community to meet its global targets, including the reduction of poverty and hunger as detailed in the global 2030 Sustainable Development Agenda. Thus, marine environments are considered opportunities for future growth not only in Europe, but also in bordering marine areas like the tropical Atlantic.

As a consequence, new frameworks will be increasingly needed to regulate and optimize the range of feasible uses of marine areas and resources. Marine Spatial Planning (MSP) aims at reconciling human uses and conservation, and offers an attractive setting to combine different uses of marine resources within a single area. There is an urgent and critical need for research on the application of MSP in tropical areas. The research should critically address the fact that the policy framework originally designed for the European Union (EU) may not fit the specificities of Southern countries.

PADDLE will bring together internationally renowned researchers and actors, from countries bordering the tropical Atlantic and from the EU, to create a network and a collaborative platform, which will build theory and methods for pertinent MSP in tropical areas. This interdisciplinary team will be a pillar of knowledge-based MSP by providing critical analyses of the tools and methods used, and by designing innovative approaches to efficient MSP.

The PADDLE proposal will create the first North-South interdisciplinary consortium on MSP in the tropics, highlighting opportunities and limits of tropical MSP and producing toolboxes for a broad range of stakeholders.



# Planning in A liquiD worlD with tropicaL StakEs: solutions from an EU-Africa-Brazil perspective

No	Name	Country
1	INSTITUT DE RECHERCHE POUR LE DEVELOPPEMENT	FR
2	UNIVERSITE DE BRETAGNE OCCIDENTALE	FR
3	CENTRE NATIONAL DE LA RECHERCHE SCIENTIFIQUE CNRS	FR
4	UNIVERSITE DE NANTES	FR
5	FUNDACAO GASPAR FRUTUOSO	PT
6	FCIENCIAS.ID - ASSOCIACAO PARA A INVESTIGACAO E	PT
	DESENVOLVIMENTO DE CIENCIAS	
7	WAGENINGEN UNIVERSITY	NL
8	UNIVERSIDAD DE SEVILLA	ES
9	LEIBNIZ-ZENTRUM FUER MARINE TROPENFORSCHUNG	DE
	(ZMT) GMBH	
10	TERRA MARIS	FR
11	CREOCEAN	FR
12	UNIVERSITE CHEIKH ANTA DIOP DE DAKAR	SN
13	INSTITUTO NACIONAL DE DESENVOLVIMENTO DAS PESCAS	CV
14	UNIVERSIDADE FEDERAL RURAL DE PERNAMBUCO	BR
15	UNIVERSIDADE FEDERAL DE PERNAMBUCO	BR
16	INSTITUTO PRESBITERIANO MACKENZIE	BR
17	IUCN - Senegal	SN
18	UNIVERSIDADE FEDERAL DA PARAIBA	BR

#### **PrimeFish**

#### Developing Innovative Market Orientated Prediction Toolbox to Strengthen the Economic Sustainability and Competitiveness of European Seafood on Local and Global markets

Framework: Horizon 2020 End date: 2019/02/28

Project number: 635761 Duration: 48 months

**Call:** H2020-BG-2014-2 **Total Cost:** € 5.275.426,25

**Instrument: EU Contribution:** € 4.997.912,50

Research and Innovation action Consortium: 16 participants

Start date: 2015/03/01 Project Coordinator: MATIS OHF, IS

#### **Abstract**

Two thirds of seafood consumed in EU is imported from third countries. Although capture fisheries in Europe have declined, the aquaculture sector has not grown to meet the increased demand for seafood. Seafood producers in Europe are in fierce competition with imports; prices of seafood products fluctuate and destabilise markets; unsuitable regulations influence the competitiveness of seafood producers; some producers are unable to meet the demands and expectations of consumers and many new fish products fail on markets. These and other challenges affecting the economic sustainability of European seafood producers are addressed in PrimeFish, a four year Horizon 2020 funded research project with 14 participants from Europe. For comparative investigation outside Europe, PrimeFish has participants from Vietnam and Canada. To improve economic sustainability and competitiveness, information will be gathered and analysed to generate new knowledge and insights into the performance of European/Canadian fisheries and aquaculture sectors on local, European and international markets.

The outcome of the project will be models that can be used to compare competitiveness and to predict possible "boom and bust" price cycles, for strategic positioning within the value chain, on success analysis for new products and for innovation and price analysis for specific species. PrimeFish will assess the non-market value associated with aquaculture and captured fisheries as well as the effectiveness of regulatory systems and thereby provide a basis for improved societal decision making in the future. The implementation of the simulation and prediction models into a web-based market intelligence toolbox for seafood operators and policymakers is one of the key concepts of the project. The toolbox will provide peer comparison to fishermen, aquaculture producers and processing companies (on a supply-chain level) and to public stakeholders on a country or species level. The toolbox should also support producers in product development and in spotting market needs. By improving strategic decision making for industry players and policymakers the long term economic sustainability of EU fisheries and aquaculture sectors will be enhanced. As there is a lack of appropriate production and socio-economic data, the

project will gather data not only on aggregate level obtained from publically available sources, but also from individual production companies, industry organisations, sales organisations and marketing channels. To facilitate data access for the specific case studies and to create added value, PrimeFish has a large industry reference group within Europe and Canada. PrimeFish is the ideal platform for strengthening the Trans-Atlantic alliance between EU and Canada by providing comparative studies and benchmarking on economic viability and competitiveness of the fisheries and aquaculture sectors across the Atlantic.

Project's Participants

#### **PrimeFish**

Developing Innovative Market Orientated Prediction Toolbox to Strengthen the Economic Sustainability and Competitiveness of European Seafood on Local and Global markets

No	Name	Country
1	MATIS OHF	IS
2	AALBORG UNIVERSITET	DK
3	SP/F SYNTESA	FO
4	INSTITUT NATIONAL DE LA RECHERCHE AGRONOMIQUE	FR
5	UNIVERSITE DE SAVOIE	FR
6	VEREIN ZUR FOERDERUNG DES TECHNOLOGIETRANSFERS AN DER HOCHSCHULE BREMERHAVEN E.V.	DE
7	HASKOLI ISLANDS	IS
8	UNIVERSITA DEGLI STUDI DI PARMA	IT
9	UNIVERSITA DEGLI STUDI DI PAVIA	ΙΤ
10	KONTALI ANALYSE AS	NO
11	NOFIMA AS	NO
12	UNIVERSITETET I TROMSOE	NO
13	CENTRO TECNOLOGICO DEL MAR - FUNDACION CETMAR	ES
14	THE UNIVERSITY OF STIRLING	UK
15	TRUONG DAI HOC NHA TRANG	VN
16	MEMORIAL UNIVERSITY OF NEWFOUNDLAND	CA

#### Respon-Sea-ble

# Sustainable oceans: our collective responsibility, our common interest. Building on real-life knowledge systems for developing interactive and mutual learning media

Framework: Horizon 2020 Duration: 48 months

**Project number:** 652643 **Total Cost:** € 3.696.644,00

**Call:** H2020-BG-2014-1 **EU Contribution:** € 3.696.644,00

**Instrument:** Coordination & support action **Consortium:** 15 participants

Start date: 2015/04/01 Project Coordinator: ACTEON SARL, FR

**End date:** 2019/03/31

#### **Abstract**

The project will develop well-targeted and sound communication material that raises awareness on our (individual and collective) responsibility and interest in ensuring the sustainability of the ocean and of its ecosystems.

The project builds on critical assessments of: (1) existing communication strategies, material and governance that focuses on the ocean; (2) the values, perceptions and understanding of the state, functioning and role of the ocean by different types of stakeholders and of the wider public; (3) the (scientific) knowledge that exist on the ocean-human relationship, in particular in terms of ecosystem services that can be delivered by ocean ecosystems and support (future) development opportunities and blue growth and of pressures that are imposed on the oceans. These critical assessments will help identifying priority target groups with key responsibilities and interests in the state of our oceans today and in the future.

Within a participatory process involving the stakeholders of the knowledge creation & sharing system from four European marine regions (Baltic Sea, Mediterranean Sea, Northern Sea and Atlantic \_ including in its transatlantic dimension), and building on the scientific knowledge-based established and on project-dedicated IT structure/platform, the project will then develop and test under real conditions innovative communication tools. Key principles guiding this development will be interactivity, mutual learning, creativity and entertainment.

Finally, specific activities will be performed for ensuring proposed communication tools are made accessible and available to their future users in Europe but also elsewhere.

#### Respon-Sea-ble

# Sustainable oceans: our collective responsibility, our common interest. Building on real-life knowledge systems for developing interactive and mutual learning media

No	Name	Country
1	ACTEON SARL	FR
2	STIFTELSEN GRID ARENDAL	NO
3	NATIONAL UNIVERSITY OF IRELAND, GALWAY	ΙE
4	STICHTING PROSEA MARINE EDUCATION	NL
5	COFAC COOPERATIVA DE FORMACAO E ANIMACAO CULTURAL CRL	PT
6	INSTITUTUL NATIONAL DE CERCETARE DEZVOLTARE DELTA DUNARII	RO
7	NORSK INSTITUTT FOR VANNFORSKNING	NO
8	CSP - INNOVAZIONE NELLE ICT S.C.A.R.L.	IT
9	BALTIC ENVIRONMENTAL FORUM DEUTSCHLAND EV	DE
10	FUNDACION AZTI - AZTI FUNDAZIOA	ES
11	THE MARINE FOUNDATION LIMITED	UK
12	SEVEN ENGINEERING CONSULTANTS OE	EL
13	UNIVERSITE DE BRETAGNE OCCIDENTALE	FR
14	UNIVERSITY OF PLYMOUTH	UK
15	TELEVISION FOR THE ENVIRONMENT	UK

#### Small farms, small food businesses and sustainable food security

Framework: Horizon 2020 **Duration:** 48 months

**Project number:** 677363 **Total Cost:** € 4,958,172.50

**Call:** H2020-SFS-2015-2 **EU Contribution:** € 4,958,172.50

**Instrument:** Research and Innovation **Consortium:** 17 participants

action **Project Coordinator:** UNIVERSIDADE DE EVORA,

**Start date:** 2016/04/01 PT

End date: 2020/03/31

#### **Abstract**

SALSA will assess the role of small farms and small food businesses in delivering a sustainable and secure supply of affordable, nutritious and culturally adequate food. SALSA will identify the mechanisms which, at different scales, can strengthen the role of small farms in food systems and thereby support sustainable food and nutrition security (FNS). By considering a gradient of 30 reference regions in Europe and in Africa, we will obtain a differentiated understanding of the role of small farms and small food businesses in very differently structured food systems and situations. SALSA will elaborate and implement a transdisciplinary, multi-scale approach that builds on and connects relevant theoretical and analytical frameworks within a food systems approach, and that uses qualitative, consultative and quantitative methods. We will also test a new combination of data-based methods and tools (including satellite technologies) for rigorously assessing in quantitative terms the interrelationships between small farms, other small food businesses and FNS, paying particular attention to limiting and enabling factors. SALSA will use participatory methods, at regional level, and establish a more global Community of Practice and multi-stakeholder learning platform, based on FAO's TECA online communication and learning platform.

The SALSA consortium, and the joint learning and close cooperation, have both been designed with the EU - Africa dialogue in mind. Responding to the call we will unravel the complex interrelationships between small farms, small food businesses and FNS, and unfold the role played by small farms in (a) the balance between the different dimensions of sustainability, (b) maintaining more diverse production systems, (c) supporting the urban/rural balance in terms of labour and (d) in facilitating territorial development in countries facing a strong rural population growth.

# Small farms, small food businesses and sustainable food security

No	Name	Country
1	UNIVERSIDADE DE EVORA	PT
2	UNIVERSITA DI PISA	IT
3	NODIBINAJUMS BALTIC STUDIES CENTRE	LV
4	THE JAMES HUTTON INSTITUTE	UK
5	STIFTELSEN NORSK SENTER FOR BYGDEFORSKNING	NO
6	UNIWERSYTET ROLNICZY IM. HUGONA KOLLATAJA W	PL
	KRAKOWIE	
7	HIGHCLERE CONSULTING SRL	RO
8	UNIVERSITAT POLITECNICA DE VALENCIA	ES
9	International Institute for Environment and Development	UK
10	AGRICULTURAL UNIVERSITY OF ATHENS	EL
11	UNIVERSIDADE DE CABO VERDE	CV
12	UNIVERSITY FOR DEVELOPMENT STUDIES	GH
13	AFRICAN CENTRE FOR TECHNOLOGY STUDIES	KE
14	INSTITUT NATIONAL DE LA RECHERCHE AGRONOMIQUE DE	TN
	TUNISIE	
15	INTERNATIONAL CENTRE FOR RESEARCH IN AGROFORESTRY	KE
16	FOOD AND AGRICULTURE ORGANIZATION OF THE UNITED	IT
	NATIONS FAO	
17	COLDIRETTI	IT

#### **SeaChange**

Framework: Horizon 2020 **Duration:** 36 months

**Project number:** 652644 **Total Cost:** € 3,494,876.00

**Call:** H2020-BG-2014-1 **EU Contribution:** € 3,494,876.00

**Instrument:** Consortium: 17 participants and 4 IAG

Coordination & support action participants

Start date: 2015/03/01 Project Coordinator: Marine Biological

End date: 2018/02/28 Association Of The United Kingdom, UK

#### **Abstract**

The overarching goals of the Sea Change project are to bring about a fundamental "Sea Change" in the way European citizens view their relationship with the sea, by empowering them — as 'Ocean Literate' citizens - to take direct and sustainable action towards healthy seas and ocean, healthy communities and ultimately - a healthy planet. Key objectives of Sea Change are to:

- Compile an in-depth review of the links between Seas and Ocean and Human health based on latest research knowledge outputs
- Build upon the latest social research on citizen and stakeholder attitudes, perceptions and values to help design and implement successful mobilisation activities focused on education, community, governance actors and directly targeted at citizens. marine education
- Build upon significant work to date, adopting best practice and embedding Ocean Literacy across established strategic initiatives and networks in order to help maximise impact and ensure sustainability
- Ensure that efforts to sustain an Ocean Literate society in Europe continue beyond the life of Sea Change through codes of good practice, public campaigns and other ongoing community activities.
- Ensure that all activities of Sea Change are carefully monitored and evaluated to ensure maximum sustainability, effectiveness and efficiency
- Ensure Knowledge exchange with transatlantic partners to bring about a global approach to protecting the planet's shared seas and ocean. The objectives will be achieved by a closely interlinked programme. Sea Change includes a mobilisation phase engaging with citizens, formal education and policy actors. Crucially the legacy of Sea Change, including continuing knowledge sharing with North America, are embedded within the project.

### SeaChange

### Project's Participants

No	Name	Country
1	MARINE BIOLOGICAL ASSOCIATION OF THE UNITED KINGDOM	UK
2	AQUATT UETP LTD	ΙE
3	THE SECRETARY OF STATE FOR ENVIRONMENT, FOOD AND RURAL AFFAIRS	UK
4	NATIONAL UNIVERSITY OF IRELAND, GALWAY	ΙE
5	GOETEBORGS UNIVERSITET	SE
6	VLAAMS INSTITUUT VOOR DE ZEE VZW	BE
7	FONDATION EUROPEENNE DE LA SCIENCE	FR
8	ASSOCIATION EUROPEENNE DES EXPOSITIONS SCIENTIFIQUES TECHNIQUES ET INDUSTRIELLES	BE
9	EUROPEAN ASSOCIATION OF GEOGRAPHERS	BE
10	DANMARKS TEKNISKE UNIVERSITET	DK
11	CIENCIA VIVA-AGENCIA NACIONAL PARA A CULTURA CIENTIFICA E TECNOLOGICA	PT
12	CIIMAR - CENTRO INTERDISCIPLINAR DE INVESTIGAÇÃO MARINHA E AMBIENTAL	PT
13	UNITED NATIONS EDUCATIONAL, SCIENTIFIC AND CULTURAL ORGANIZATION -UNESCO	FR
14	HELLENIC CENTRE FOR MARINE RESEARCH	EL
15	COEXPLORATION LIMITED	UK
16	RESEAU OCEAN MONDIAL AISBL	BE
17	ASSOCIACIO SUBMON: DIVULGACIO, ESTUDI I CONSERVACIO DE L'ENTORN NATURAL	ES

IAG participants	Name	Country
1	NATIONAL MARINE SCIENCES EDUCATION ASSOCIATION	US
2	CENTERS FOR OCEAN SCIENCES EDUCATION EXCELLENCE	US
3	THE CANADIAN NETWORK FOR OCEAN EDUCATION	CA
4	NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION	US

#### **SEACRIFOG**

# Supporting EU-African Cooperation on Research Infrastructures for Food Security and Greenhouse Gas Observations

Framework: Horizon 2020 Duration: 36 months

**Project number:** 730995 **Total Cost:** € 1,999,890.00

**Call:** H2020-INFRASUPP-2016-1 **EU Contribution:** € 1,999,890.00

**Instrument:** Coordination and support **Consortium:** 16 participants

action Project Coordinator: JOHANN HEINRICH VON

Start date: 2017/03/01 THUENEN-INSTITUT,

End date: 2020/02/29 BUNDESFORSCHUNGSINSTITUT FUER

LAENDLICHE RAEUME, WALD UND FISCHEREI, DE

#### **Abstract**

African societies face growing global change risks, with rapidly changing patterns of human settlements and intensity of use of ecosystem services. At the same time, climate variability and climate change trends are intensifying stress on the ecosystems that ensure environmental security, both locally (e.g. ecosystem services), regionally (e.g. sustainable development options) and internationally (e.g. carbon sequestration). Approaches that can address this challenge in an integrated and multidisciplinary way are urgently needed in many places in Africa where there is a close relationship between societal well-being and environmental condition, relating particularly to biomass for energy and food production, and hydrological considerations such as water yields. Policymakers and land-use decision makers are increasingly dependent on knowledge on the state of the environment. Longterm observational systems and research infrastructures have been identified to be indispensable elements of knowledge generation to serve climate change adaptation, food security, and climate change mitigation. This proposal supports EU-African cooperation on research infrastructures. Its aims are to increase coherence and interoperability between infrastructures in Europe and Africa, to enhance technical competence, science awareness and life-long learning in Africa in order to facilitate the use of research results for evidence-based policy making, and to identify knowledge gaps for future research directions. The project will 1) identify the essential parameters needed to develop science based strategies to improve food and nutrition security including early warning systems and to mitigate climate change, 2) formulate a roadmap towards fully interoperable and accessible research infrastructures in agricultural and climate research in the EU and Africa that match the needs of the users, and 3) deliver a contribution to capacity building and human capital development in Africa.

#### **SEACRIFOG**

#### Supporting EU-African Cooperation on Research Infrastructures for Food Security and Greenhouse Gas Observations

No	Name	Country
1	JOHANN HEINRICH VON THUENEN-INSTITUT, BUNDESFORSCHUNGSINSTITUT FUER LAENDLICHE RAEUME, WALD UND FISCHEREI	DE
2	FONDAZIONE CENTRO EURO-MEDITERRANEO SUI CAMBIAMENTI CLIMATICI	IT
3	WEST AFRICAN SCIENCE SERVICES CENTRE ON CLIMATE CHANGE AND ADAPTED LAND USE	GH
4	International Livestock Research Institute	KE
5	INTEGRATED CARBON OBSERVATION SYSTEM EUROPEAN RESEARCH INFRASTRUCTURE CONSORTIUM	FI
6	UNIVERSITY OF THE WITWATERSRAND JOHANNESBURG	ZA
7	THE PROVOST, FELLOWS, FOUNDATION SCHOLARS & THE OTHER MEMBERS OF BOARD OF THE COLLEGE OF THE HOLY & UNDIVIDED TRINITY OF QUEEN ELIZABETH NEAR DUBLIN	ΙE
8	SOUTHERN AFRICAN SCIENCE SERVICE CENTRE FOR CLIMATE CHANGE AND ADAPTIVE LAND MANAGEMENT	NA
9	NATIONAL RESEARCH FOUNDATION	ZA
10	HELMHOLTZ ZENTRUM FUR OZEANFORSCHUNG KIEL	DE
11	LEIBNIZ INSTITUT FUER TROPOSPHAERENFORSCHUNG e.V.	DE
12	UNIVERSITETET I BERGEN	NO
13	UNI RESEARCH AS	NO
14	USTAV VYZKUMU GLOBALNI ZMENY AV CR VVI	CZ
15	LUNDS UNIVERSITET	SE
16	INSTITUTO NACIONAL DE DESENVOLVIMENTO DAS PESCAS	CV

#### **SponGES**

# Deep-sea Sponge Grounds Ecosystems of the North Atlantic: an integrated approach towards their preservation and sustainable exploitation

Framework: Horizon 2020 End date: 2020/02/29

Project number: 679849 Duration: 48 months

**Call:** H2020-BG-2015-2 **Total Cost:** € 10,225,865.25

**Instrument: EU Contribution:** € 9,994,302.75

Research and Innovation action Consortium: 19 participants

Start date: 2016/03/01 Project Coordinator: UNIVERSITETET I BERGEN, NO

#### **Abstract**

The objective of SponGES is to develop an integrated ecosystem-based approach to preserve and sustainably use vulnerable sponge ecosystems of the North Atlantic. The SponGES consortium, an international and interdisciplinary collaboration of research institutions, environmental non-governmental and intergovernmental organizations, will focus on one of the most diverse, ecologically and biologically important and vulnerable marine ecosystems of the deep-sea - sponge grounds - that to date have received very little research and conservation attention. Our approach will address the scope and challenges of EC's Blue Growth Call by strengthening the knowledge base, improving innovation, predicting changes, and providing decision support tools for management and sustainable use of marine resources. SponGES will fill knowledge gaps on vulnerable sponge ecosystems and provide guidelines for their preservation and sustainable exploitation. North Atlantic deep-sea sponge grounds will be mapped and characterized, and a geographical information system on sponge grounds will be developed to determine drivers of past and present distribution. Diversity, biogeographic and connectivity patterns will be investigated through a genomic approach. Function of sponge ecosystems and the goods and services they provide, e.g. in habitat provision, bentho-pelagic coupling and biogeochemical cycling will be identified and quantified. This project will further unlock the potential of sponge grounds for innovative blue biotechnology namely towards drug discovery and tissue engineering. It will improve predictive capacities by quantifying threats related to fishing, climate change, and local disturbances. SpongeGES outputs will form the basis for modeling and predicting future ecosystem dynamics under environmental changes. SponGES will develop an adaptive ecosystem-based management plan that enables conservation and good governance of these marine resources on regional and international levels.

#### **SponGES**

#### Deep-sea Sponge Grounds Ecosystems of the North Atlantic: an integrated approach towards their preservation and sustainable exploitation

No	Name	Country
1	UNIVERSITETET I BERGEN	NO
2	FLORIDA ATLANTIC UNIVERSITY BOARD OF TRUSTEES	US
3	INSTITUTO ESPANOL DE OCEANOGRAFIA	ES
4	UPPSALA UNIVERSITET	SE
5	NATURAL HISTORY MUSEUM	UK
6	AGENCIA ESTATAL CONSEJO SUPERIOR DE INVESTIGACIONES	ES
	CIENTIFICAS	
7	UNIVERSITEIT VAN AMSTERDAM	NL
8	WAGENINGEN UNIVERSITY	NL
9	BANGOR UNIVERSITY	UK
10	UNIVERSITY OF BRISTOL	UK
11	UNIVERSIDADE DO MINHO	PT
12	IMAR- INSTITUTO DO MAR	PT
13	ECOLOGY ACTION CENTRE	CA
14	STICHTING NIOZ, KONINKLIJK NEDERLANDS INSTITUUT VOOR	NL
	ONDERZOEK DER ZEE	
15	HELMHOLTZ ZENTRUM FUR OZEANFORSCHUNG KIEL	DE
16	UNIVERSITEIT UTRECHT	NL
17	STUDIO ASSOCIATO GAIA SNC DEI DOTTORI ANTONIO SARA E	IT
	MARTINA MILANESE	
18	FOOD AND AGRICULTURE ORGANIZATION OF THE UNITED	IT
	NATIONS FAO	
19	ALFRED-WEGENER-INSTITUT HELMHOLTZ- ZENTRUM FUER POLAR-	DE
	UND MEERESFORSCHUNG	DL

Third Parties Involved	Name	Country
1	NANSEN ENVIRONMENTAL AND REMOTE SENSING CENTRE (NERSC)	NO
2	FISHERIES AND OCEANS CANADA (DFO)	CA

#### **VIVALDI**

#### Preventing and mitigating farmed bivalve diseases

Framework: Horizon 2020 **Duration:** 48 months

**Project number:** 678589 **Total Cost:** € 5,414,417.50

**Call:** H2020- SFS-2015-2 **EU Contribution:** € 4,503,082.50

**Instrument:** Consortium: 21 participants

Research and Innovation action Project Coordinator: INSTITUT FRANCAIS DE

Start date: 2016/03/01 RECHERCHE POUR L'EXPLOITATION DE LA MER, FR

**End date: 2020/02/29** 

#### **Abstract**

The overarching goal of VIVALDI is to increase the sustainability and competitiveness of the European shellfish industry by improving the understanding of bivalve diseases and by developing innovative solutions and tools for the prevention, control and mitigation of the major pathogens affecting the main European farmed shellfish species: Pacific oyster (Crassostrea gigas), mussels (Mytilus edulis and M. galloprovincialis), European flat oyster (Ostrea edulis), clams (Venerupis philipinarum) and scallops (Pecten maximus ). The project addresses the most harmful pathogens affecting either one or more of these shellfish species: the virus OsHV-1, Vibrio species including V. aestuarianus, V. splendidus, V. harveyi and V. tapetis, as well as the parasite Bonamia ostreae. The project is committed to provide practical solutions based on the most advanced knowledge. VIVALDI will dissect the disease mechanisms associated with pathogen virulence and pathogenesis and host immune responses, develop in vivo and in vitro models, and apply "omic" approaches that will help the development of diagnostic tools and drugs against pathogen targets, and breeding programmes in a collaborative effort with industrial partners. The proposal will include a global shellfish health approach, recognising that cultured bivalves are often exposed to several pathogens simultaneously, and that disease outbreaks can be due to the combined effect of two or more pathogens. The proposal will also investigate advantages and risks of the used of disease-resistant selected animals in order to improve consumer confidence and safety. VIVALDI will be both multi- and trans-disciplinary. In order to cover both basic and applied levels from molecules to farm, the proposal will integrate partners with a broad range of complementary expertises in pathology and animal health, epidemiology, immunology, molecular biology, genetics, genomics and food safety.

#### Preventing and mitigating farmed bivalve diseases

No	Name	Country
1	INSTITUT FRANCAIS DE RECHERCHE POUR L'EXPLOITATION DE LA MER	FR
2	CENTRE NATIONAL DE LA RECHERCHE SCIENTIFIQUE	FR
3	SYNDICAT DES SELECTIONNEURS AVICOLES ET AQUACOLES FRANCAIS	FR
4	LABOGENA DNA	FR
5	AGENCIA ESTATAL CONSEJO SUPERIOR DE INVESTIGACIONES CIENTIFICAS	ES
6	INSTITUT DE RECERCA I TECNOLOGIA AGROALIMENTARIES	ES
7	UNIVERSITY COLLEGE CORK - NATIONAL UNIVERSITY OF IRELAND, CORK	IE
8	MARINE INSTITUTE	IE
9	NATIONAL UNIVERSITY OF IRELAND, GALWAY	ΙE
10	ATLANTIUM TECHNOLOGIES LTD	IL
11	UNIVERSITA DEGLI STUDI DI GENOVA	IT
12	UNIVERSITA DEGLI STUDI DI PADOVA	IT
13	UNIVERSITA DEGLI STUDI DI TRIESTE	IT
14	NOFIMA AS	NO
15	HAVFORSKNINGSINSTITUTTET	NO
16	STICHTING DIENST LANDBOUWKUNDIG ONDERZOEK	NL
17	THE SECRETARY OF STATE FOR ENVIRONMENT, FOOD AND RURAL AFFAIRS	UK
18	THE QUEEN'S UNIVERSITY OF BELFAST	UK
19	ALFRED-WEGENER-INSTITUT HELMHOLTZ- ZENTRUM FUER POLAR- UND MEERESFORSCHUNG	DE
20	DANMARKS TEKNISKE UNIVERSITET	DK
21	THE UNIVERSITY OF LIVERPOOL	UK

# FP7 funded projects on Atlantic Ocean (selection)

#### **EUROSITES**

## Integration and enhancement of key existing European deep-ocean observatories

Framework: FP7 Duration: 36 months

**Project number:** 202955 **Total Cost:** € 4,753,779.70

**Call:** FP7-ENV-2007-1 **EU Contribution:** € 3,482,601.44

**Instrument:** CP-FP - Small or medium- **Consortium:** 13 participants

scale focused research project Project Coordinator: NATURAL ENVIRONMENT

Start date: 2008/04/01 RESEARCH COUNCIL, UK

**End date:** 2011/03/31

#### **Abstract**

At present there are a number of fixed point observatories that autonomously measure biological, chemical and physical variables in the oceans around Europe. These operate at various levels of sophistication but in a largely uncoordinated and fragmented manner. There is no agreed set of basic variables and common data protocols are not followed.

EuroSITES has two main objectives: 1: To enhance the existing deep ocean observatories thus forming a coherent European network. This will then provide a clear and relevant description of the time varying properties of the ocean system. 2: To perform a small number of specific science missions that will, in the future, form the basis for greatly improved and novel monitoring capability.

The work we propose addresses directly and explicitly the vision of GEOSS. We will address this in the context of the time changing properties of the ocean interior, seafloor and sub seafloor around Europe. EuroSITES will promote links with other international observation networks such as the network envisioned under the U.S. National Science Foundation's Ocean Observatories Initiative (OOI). Long-term time-series data offer some of the most important insights into the ways our oceans are changing. Crucially important processes occur on time scales that can not be observed by ships and in the deep parts of the ocean that are outside the reach of satellites. Sustained in situ observations are therefore required to provide high quality data on climatically and ecologically relevant variables at a few key locations. EuroSITES is the means to achieve this.

## **EUROSITES**

# Integration and enhancement of key existing European deep-ocean observatories

No	Name	Country
1	NATURAL ENVIRONMENT RESEARCH COUNCIL	UK
2	UNIVERSITETET I BERGEN	NO
3	HELLENIC CENTRE FOR MARINE RESEARCH	EL
4	ISTITUTO NAZIONALE DI OCEANOGRAFIA E DI GEOFISICA	IT
	SPERIMENTALE	
5	CONSIGLIO NAZIONALE DELLE RICERCHE	IT
6	HELMHOLTZ ZENTRUM FUR OZEANFORSCHUNG KIEL	DE
7	THE UNIVERSITY COURT OF THE UNIVERSITY OF ABERDEEN	UK
8	CENTRE NATIONAL DE LA RECHERCHE SCIENTIFIQUE CNRS	FR
9	INSTITUT FRANCAIS DE RECHERCHE POUR L'EXPLOITATION	FR
	DE LA MER	
10	BREST'AIM SA	FR
11	INSTITUTO CANARIO DE CIENCIAS MARINAS	ES
12	INSTITUTO NACIONAL DE DESENVOLVIMENTO DAS PESCAS	CV
13	UNIVERSIDAD DE LAS PALMAS DE GRAN CANARIA	ES

#### Fixed Point Open Ocean Observatories Network

Framework: FP7 Duration: 48 months

**Project number:** 312463 **Total Cost:** € 8,607,911.79

**Call:** FP7-INFRASTRUCTURES-2012-1 **EU Contribution:** € 7,000,000.00

**Instrument:** CP-CSA-Infra - **Consortium:** 29 participants

Combination of CP and CSA **Project Coordinator:** NATURAL ENVIRONMENT

Start date: 2013/09/01 RESEARCH COUNCIL, UK

**End date:** 2017/08/31

#### **Abstract**

The Fixed point Open Ocean Observatory network (FixO3) seeks to integrate European open ocean fixed point observatories and to improve access to these key installations for the broader community. These will provide multidisciplinary observations in all parts of the oceans from the air-sea interface to the deep seafloor. Coordinated by the National Oceanography Centre, UK, FixO3 will build on the significant advances achieved through the FP7 programmes EuroSITES, ESONET and CARBOOCEAN.

With a budget of 7.00 Million Euros over 4 years (starting September 2013) the proposal has 29 partners drawn from academia, research institutions and SME's. In addition 14 international experts from a wide range of disciplines comprise an Advisory Board.

The programme will be achieved through: 1. Coordination activities to integrate and harmonise the current procedures and processes. Strong links will be fostered with the wider community across academia, industry, policy and the general public through outreach, knowledge exchange and training. 2. Support actions to offer a) access to observatory infrastructures to those who do not have such access, and b) free and open data services and products. 3. Joint research activities to innovate and enhance the current capability for multidisciplinary in situ ocean observation. Open ocean observation is currently a high priority for European marine and maritime activities. FixO3 will provide important data on environmental products and services to address the Marine Strategy Framework Directive and in support of the EU Integrated Maritime Policy. The FixO3 network will provide free and open access to in situ fixed point data of the highest quality. It will provide a strong integrated framework of open ocean facilities in the Atlantic from the Arctic to the Antarctic and throughout the Mediterranean, enabling an integrated, regional and multidisciplinary approach to understand natural and anthropogenic change in the ocean.

## Fixed Point Open Ocean Observatories Network

No	Name	Country
1	NATURAL ENVIRONMENT RESEARCH COUNCIL	UK
2	ISTITUTO NAZIONALE DI OCEANOGRAFIA E DI GEOFISICA	IT
	SPERIMENTALE	
3	HELLENIC CENTRE FOR MARINE RESEARCH	EL
4	UNIVERSITAET BREMEN	DE
5	UNIVERSITETET I BERGEN	NO
6	UNIVERSITETET I TROMSOE	NO
7	CONSORCIO PARA EL DISENO, CONSTRUCCION,	ES
	EQUIPAMIENTO Y EXPLOTACION DE LA PLATAFORMA	
	OCEANICA DE CANARIAS	
8	ALFRED-WEGENER-INSTITUT HELMHOLTZ- ZENTRUM FUER	DE
	POLAR- UND MEERESFORSCHUNG	
9	THE UNIVERSITY OF EXETER	UK
10	SLR ENVIRONMENTAL CONSULTING(IRELAND)LIMITED	IE
11	INSTITUT FRANCAIS DE RECHERCHE POUR L'EXPLOITATION	FR
	DE LA MER	
12	BLUE LOBSTER IT LIMITED	UK
13	ISTITUTO NAZIONALE DI GEOFISICA E VULCANOLOGIA	ΙΤ
14	MARINE INSTITUTE	IE
15	THE UNIVERSITY COURT OF THE UNIVERSITY OF ABERDEEN	UK
16	CENTRE NATIONAL DE LA RECHERCHE SCIENTIFIQUE CNRS	FR
17	HELMHOLTZ ZENTRUM FUR OZEANFORSCHUNG KIEL	DE
18	UNIVERSIDAD DE LAS PALMAS DE GRAN CANARIA	ES
19	THE UNIVERSITY COURT OF THE UNIVERSITY OF ST	UK
20	ANDREWS	50
20	INSTITUTO ESPANOL DE OCEANOGRAFIA	ES
21	NKE INSTRUMENTATION SARL	FR
22	INSTITUTO NACIONAL DE DESENVOLVIMENTO DAS PESCAS	CV
23	UNIVERSITAT POLITECNICA DE CATALUNYA	ES
24	TEXCEL TECHNOLOGY PLC	UK
25	GOETEBORGS UNIVERSITET	SE
26	52°North Initiative for Geospatial Open Source Software GmbH	DE
27	CONSIGLIO NAZIONALE DELLE RICERCHE	IT
28	STICHTING NIOZ, KONINKLIJK NEDERLANDS INSTITUUT	NL
	VOOR ONDERZOEK DER ZEE	
29	IMAR- INSTITUTO DO MAR	PT

#### **GARNET-E**

# GMES for Africa: Regional Network for Information Exchange and Training in Emergencies

Framework: FP7 Duration: 24 months

**Project number:** 242385 **Total Cost:** € 1,336,301.00

**Call:** FP7-SPACE-2009-1 **EU Contribution:** € 999,470.00

**Instrument:** CSA-SA - Supporting **Consortium:** 20 participants

action Project Coordinator: INFOTERRA LIMITED, UK

**Start date:** 2010/05/01

**End date:** 2012/04/30

#### **Abstract**

To enable and enhance the ability of African states to use satellite Earth Observation for the management of natural and man-made humanitarian emergencies. To develop a network of EU, African organisations and African users, in order to build economic, technical and commercial capacity within African states, along the priority lines being identified in consultation with the African Union under the 'GMES and Africa' initiative.

## **GARNET-E**



## GMES for Africa: Regional Network for Information Exchange and Training in Emergencies

No	Name	Country
1	INFOTERRA LIMITED	UK
2	AFRICAN ASSOCIATION OF REMOTE SENSING OF THE ENVIRONMENT	ZA
3	CENTRE ROYAL DE TELEDETECTION SPATIALE	MA
4	COUNCIL FOR SCIENTIFIC AND INDUSTRIAL RESEARCH	ZA
5	DMC International Imaging Limited	UK
6	EDISOFT-EMPRESA DE SERVICOS E DESENVOLVIMENTO DE SOFTWARE SA	PT
7	EIS-AFRICA, A network for the co-operative management of Environmental Information	ZA
8	GEOSAS CONSULTING SERVICE PLC	ET
9	UNIVERSITEIT TWENTE	NL
10	KEYOBS S.A.	BE
11	The National Land Survey of Sweden	SE
12	PARIS-LODRON-UNIVERSITAT SALZBURG	AT
13	Regional Centre for Mapping of Resources for Development	KE
14	REGIONAL CENTRE FOR TRAINING IN AERIAL SURVEYS	NG
15	MINISTERIO DE ADMINISTRACAO INTERNA	CV
16	VLAAMSE INSTELLING VOOR TECHNOLOGISCH ONDERZOEK N.V.	BE
17	SYSECO SPRL	BE
18	SPACETEC PARTNERS SPRL	BE
19	METRIA AB	SE
20	SOUTH AFRICA NATIONAL SPACE AGENCY	ZA

#### **GMOS**

#### **Global Mercury Observation System**

Framework: FP7 End date: 2015/10/31

Project number: 265113 Duration: 60 months

**Call:** FP7-ENV-2010 **Total Cost:** € 9,150,448.00

**Instrument:** CP-IP-SICA - Large-scale **EU Contribution:** € 6,882,068.00

integrating project for specific cooperation actions dedicated to Consortium: 24 participants

international cooperation partner Project Coordinator: CONSIGLIO NAZIONALE

countries (SICA) DELLE RICERCHE, IT

**Start date:** 2010/11/01

#### **Abstract**

The overall goal of the proposed project is to develop a coordinated global observation system for mercury able to provide temporal and spatial distributions of mercury concentrations in ambient air and precipitation over land and over surface waters at different altitudes and latitudes around the world. This will then provide high quality data for the validation and application of regional and global scale atmospheric models, to give to governments, national and international organisations and stakeholders a firm basis for future policy development and implementation. Specific objectives of the proposed project are (a) to establish a Global Observation System for Mercury (GMOS) able to provide ambient concentrations and deposition fluxes of mercury species around the world, by combining observations from permanent ground-based stations, and from oceanographic and tropospheric measurement campaigns; (b) to validate regional and global scale atmospheric mercury modelling systems able to predict temporal variations and spatial distributions of atmospheric mercury entering to and re-emitted from terrestrial and aquatic receptors; (c) to evaluate and identify source-receptor relationships at country scale and their temporal trends for current and projected scenarios of mercury emissions from anthropogenic and natural sources; (d) to develop interoperable tools to allow the sharing of observational and models output data produced by GMOS. The overarching goal of GMOS is to support the achievement of goals set by the GEO / GEOSS, and specifically of the GEO Task HE-09-02d and contribute to the advancement of our scientific understanding in the nine Societal Benefit Areas (SBA) established in GEOSS. The proposed project will rely on the results and knowledge acquired in the framework of past EU projects (i.e., MAMCS, MOE, MERCYMS) and international programs (i.e., UNECE TF HTAP; UNEP F&T partnership area).

## **Global Mercury Observation System**

No	Name	Country
1	CONSIGLIO NAZIONALE DELLE RICERCHE	ΙΤ
2	NORSK INSTITUTT FOR LUFTFORSKNING STIFTELSE	NO
3	IVL SVENSKA MILJOEINSTITUTET AB	SE
4	INSTITUT JOZEF STEFAN	SI
5	CONSEJO NACIONAL DE INVESTIGACIONES CIENTIFICAS Y TECNICAS (CONICET)	AR
6	INSTITUT FRANCAIS DE RECHERCHE POUR L'EXPLOITATION DE LA MER	FR
7	INSTITUUT VOOR TOEGEPASTE TECHNIEK	SR
8	GOETEBORGS UNIVERSITET	SE
9	UNIVERSITA CA' FOSCARI VENEZIA	IT
10	AARHUS UNIVERSITET	DK
11	HELMHOLTZ-ZENTRUM GEESTHACHT ZENTRUM FUR MATERIAL- UND KUSTENFORSCHUNG GMBH	DE
12	UNIVERSITE GRENOBLE ALPES	FR
13	UNIVERSITY OF YORK	UK
14	INSTITUTE OF GEOCHEMISTRY CHINESE ACADEMY OF SCIENCES	CN
15	ASSOCIACAO DOS PESQUISADORES DO EXPERIMENTO DE GRANDE ESCALA DA BIOSFERA-ATMOSFERA NA AMAZONIA	BR
16	METEOROLOGICAL SYNTHESIZING CENTREEAST*MSC-EAST MSC-E	RU
17	MAX-PLANCK-GESELLSCHAFT ZUR FORDERUNG DER WISSENSCHAFTEN EV	DE
18	JRC -JOINT RESEARCH CENTRE- EUROPEAN COMMISSION	EU
19	ANNA UNIVERSITY CHENNAI	IN
20	South African Weather Service	ZA
21	INSTITUTO NACIONAL DE METEOROLOGIA E GEOFISICA	CV
22	LATVIJAS UNIVERSITATE	LV
23	SAINT PETERSBURG STATE UNIVERSITY	RU
24	CHALMERS TEKNISKA HOEGSKOLA AB	SE

#### **HERMIONE**

#### Hotspot Ecosystem Research and Man's Impact on European seas

Framework: FP7 Duration: 42 months

**Project number:** 226354 **Total Cost:** € 10.982.142,33

**Call:** FP7-ENV-2008-1 **EU Contribution:** € 7.998.955,00

**Instrument:** Consortium: 41 participants

Large-scale integrating project Project Coordinator: UNITED KINGDOM

Start date: 2009/04/01 RESEARCH AND INNOVATION, UK

**End date:** 2012/09/30

#### **Abstract**

The HERMIONE project is designed to make a major advance in our knowledge of the functioning of deep-sea ecosystems and their contribution to the production of goods and services. This will be achieved through a highly interdisciplinary approach (including ecologists, microbiologists, biogeochemists, sedimentologists, oceanographers, modelers and socio-economists) that will integrate biodiversity, specific adaptions and biological capacity in the context of a wide range of highly vulnerable deepsea habitats. Gaining this understanding is crucial, because these ecosystems are now being affected by climate change and impacted by man through fishing, resource extraction, seabed installations and pollution. To design and implement effective governance strategies and management plans we must understand the extent, natural dynamics and interconnection of ocean ecosystems and integrate socio-economic research with natural science. The study sites include the Arctic, North Atlantic and Mediterranean and cover a range of ecosystems including cold-water corals, canyons, cold and hot seeps, seamounts and open slopes and deep-basins. The project will make strong connections between deep-sea science and user needs. HERMIONE will enhance the education and public perception of the deep-ocean issues also through some of the major EU aquaria. These actions, together with GEOSS databases that will be made available, will create a platform for discussion between a range of stakeholders, and contribute to EU environmental policies.

## **HERMIONE**

# Hotspot Ecosystem Research and Man's Impact on European seas

No	Name	Country
1	UNITED KINGDOM RESEARCH AND INNOVATION	UK
2	INSTITUT FRANCAIS DE RECHERCHE POUR L'EXPLOITATION DE LA MER	FR
3	STICHTING NEDERLANDSE WETENSCHAPPELIJK ONDERZOEK INSTITUTEN	NL
4	UNIVERSITAT DE BARCELONA	ES
5	HELLENIC CENTRE FOR MARINE RESEARCH	EL
6	HELMHOLTZ ZENTRUM FUR OZEANFORSCHUNG KIEL	DE
7	CONSIGLIO NAZIONALE DELLE RICERCHE	IT
8	ALFRED-WEGENER-INSTITUT HELMHOLTZ-ZENTRUM FUR POLAR- UND MEERESFORSCHUNG	DE
9	UNIVERSITETET I TROMSOE	NO
10	NATIONAL UNIVERSITY OF IRELAND GALWAY	ΙE
11	FRIEDRICH-ALEXANDER-UNIVERSITAET ERLANGEN NUERNBERG	DE
12	UNIVERSITEIT GENT	BE
13	AGENCIA ESTATAL CONSEJO SUPERIOR DEINVESTIGACIONES CIENTIFICAS	ES
14	CONSORZIO NAZIONALE INTERUNIVERSITARIO PER LE SCIENZE DEL MARE ASSOCIAZIONE	IT
15	MAX-PLANCK-GESELLSCHAFT ZUR FORDERUNG DER WISSENSCHAFTEN EV	DE
16	CENTRE NATIONAL DE LA RECHERCHE SCIENTIFIQUE CNRS	FR
17	INSTITUTO HIDROGRAFICO	PT
18	JACOBS UNIVERSITY BREMEN GGMBH	DE
19	UNIVERSITAET BREMEN	DE
20	CARDIFF UNIVERSITY	UK
21	HAVFORSKNINGSINSTITUTTET	NO
22	GOETEBORGS UNIVERSITET	SE
23	UNIVERSITY OF SOUTHAMPTON	UK
24	KONINKLIJKE NEDERLANDSE AKADEMIE VAN WETENSCHAPPEN - KNAW	NL
25	THE UNIVERSITY COURT OF THE UNIVERSITY OF ABERDEEN	UK
26	THE UNIVERSITY OF LIVERPOOL	UK
27	THE SCOTTISH ASSOCIATION FOR MARINESCIENCE LBG	UK
28	UNIVERSIDADE DE AVEIRO	PT
29	SORBONNE UNIVERSITE	FR
30	P.P. SHIRSHOV INSTITUTE OF OCEANOLOGY OF RUSSIAN ACADEMY OF SCIENCES	RU

31	UNITED NATIONS ENVIRONMENT PROGRAMME	KE
32	UNIVERSIDADE DOS ACORES	PT
33	Median SCP	ES
34	ArchimediX, Möckl & Munzel GbR	DE
35	PANEPISTIMIO THESSALIAS	EL
36	UNIVERSITY COLLEGE CORK - NATIONAL UNIVERSITY OF IRELAND,	ΙE
	CORK	
37	National Marine Aquarium Ltd.	UK
38	COSTA EDUTAINMENT S.P.A	IT
39	HERIOT-WATT UNIVERSITY	UK
40	SENCKENBERG GESELLSCHAFT FUR NATURFORSCHUNG	DE
41	WCMC LBG	UK

#### **MIAVITA**

# Mitigate and assess risk from volcanic impact on terrain and human activities

Framework: FP7 End date: 2012/11/30

**Project number:** 211393 **Duration:** 50 months

**Call:** FP7-ENV-2007-1 **Total Cost:** € 5,028,096.76

**Instrument:** FP7-ENV-2007- CP-SICA - **EU Contribution:** € 3,475,164.04 Collaborative project for specific

cooperation actions dedicated to **Consortium:** 15 participants

international cooperation partner **Project Coordinator:** BUREAU DE RECHERCHES

GEOLOGIQUES ET MINIERES, FR

**Start date:** 2008/10/01

countries (SICA)1

#### **Abstract**

In EU countries, volcanic risks assessment and management are tackled through scientific knowledge and monitoring, although there is still a need for integration between all risk management components. For international cooperation partner countries (ICPCs), the risk management depends on local situations but is often less favourable. Therefore, following UN International Strategy for Disaster Reduction recommendations and starting from shared existing knowledge and practices, the MIA-VITA project aims at developing tools and integrated cost effective methodologies to mitigate risks from various hazards on active volcanoes (prevention, crisis management and recovering). Such methodology will be designed for ICPCs contexts but will be helpful for European stakeholders to improve their experience in volcanic risk management. The project multidisciplinary team gathers civil defence agencies, scientific teams (earth sciences, social sciences, building, soil, agriculture, Information Technologies and telecommunications) and an IT private company. The scientific work will focus on: 1) risk assessment methodology based on a multi-risk approach developed at Mt Cameroon by one of the partners in cooperation with Cameroonian institutions 2) cost efficient monitoring tools designed for poorly monitored volcanoes (satellite & gas analysis & volcano-seismology) 3) improvement in terms of vulnerability assessment (people, buildings and biosphere) 4) socio-economic surveys to enhance community resilience 5) Integrated information system (data organisation and transfers, communications) taking advantage of GEONETCast initiative Results will be achieved with help from local scientists and stakeholders in Africa (Cameroon, Cape Verde), in Asia (Indonesia, Philippines) and will be validated on a European volcano (Montserrat). The objectives will be reached through sharing/transfer of know-how, through scientific and technological developments, and through dissemination/training.

## **MIAVITA**

# Project's Participants

# Mitigate and assess risk from volcanic impact on terrain and human activities

No	Name	Country
1	BUREAU DE RECHERCHES GEOLOGIQUES ET MINIERES	FR
2	ISTITUTO NAZIONALE DI GEOFISICA E VULCANOLOGIA	IT
3	INSTITUTO SUPERIOR TECNICO	PT
4	CENTRE NATIONAL DE LA RECHERCHE SCIENTIFIQUE CNRS	FR
5	NORSK INSTITUTT FOR LUFTFORSKNING STIFTELSE	NO
6	KELL SRL	IT
7	INESC ID - INSTITUTO DE ENGENHARIADE SISTEMAS E COMPUTADORES, INVESTIGACAO E DESENVOLVIMENTO EM LISBOA	PT
8	UNIVERSITAET HOHENHEIM	DE
9	THE CHANCELLOR, MASTERS AND SCHOLARS OF THE UNIVERSITY OF CAMBRIDGE	UK
10	MINISTERE DE L'INTERIEUR	FR
11	PRESIDENZA DEL CONSIGLIO DEI MINISTRI - DIPARTIMENTO DELLA PROTEZIONE CIVILE	IT
12	INSTITUTO NACIONAL DE METEOROLOGIA E GEOFISICA	CV
13	MINISTERE DE L'INDUSTRIE, DES MINES ET DU DEVELOPPEMENT TECHNOLOGIQUE	CM
14	Departemen Energi dan Sumber Daya Mineral	ID
15	PHILIPPINE INSTITUTE OF VOLCANOLOGY AND SEISMOLOGY	PH

#### **PREFACE**

#### Enhancing prediction of tropical Atlantic climate and its impacts

Framework: FP7 Duration: 48 months

**Project number:** 603521 **Total Cost:** € 12,170,344.87

**Call:** FP7-ENV-2013-two-stage **EU Contribution:** € 8,999,433.00

**Instrument:** CP - Collaborative project **Consortium:** 30 participants

(generic)

Start date: 2013/11/01 Project Coordinator: UNIVERSITETET I BERGEN,

End date: 2017/10/31

#### **Abstract**

Tropical Atlantic climate recently experienced pronounced shifts of great socio-economic importance. The oceanic changes were largest in the eastern boundary upwelling systems. African countries bordering the Atlantic strongly depend upon their ocean - societal development, fisheries, and tourism. They were strongly affected by these climatic changes and will face important adaptation challenges associated with global warming. Furthermore, these upwelling regions are also of great climatic importance, playing a key role in regulating global climate. Paradoxically, the Tropical Atlantic is a region of key uncertainty in earth-climate system: state-of-the-art climate models exhibit large systematic error, climate change projections are highly uncertain, and it is largely unknown how climate change will impact marine ecosystems. PREFACE aims to address these interconnected issues, and has the following goals: • To reduce uncertainties in our knowledge of the functioning of Tropical Atlantic climate. • To improve climate prediction and the quantification of climate change impacts in the region. • To improve understanding of the cumulative effects of the multiple stressors of climate variability, greenhouse induced climate change, and fisheries on marine ecosystems, and ecosystem services (e.g., fisheries, coastal vulnerability). • To assess the socio-economic vulnerabilities and evaluate the resilience of Atlantic African fishing communities to climate-driven ecosystem shifts and global markets. To meet these goals we bring together European and African expertise to combine regional and global scale modelling capabilities, field experiments and observation systems. Our target region includes areas more affected by climate change and by its consequences, European outermost regions, and African countries bordering the Atlantic.

# Enhancing prediction of tropical Atlantic climate and its impacts

No	Name	Country
1	UNIVERSITETET I BERGEN	NO
2	LEIBNIZ-INSTITUT FUR OSTSEEFORSCHUNG WARNEMUNDE	DE
	STIFTUNG	
3	KOBENHAVNS UNIVERSITET	DK
4	CENTRE EUROPEEN DE RECHERCHE ET DE FORMATION AVANCEE	FR
	EN CALCUL SCIENTIFIQUE	
5	INSTITUT DE RECHERCHE POUR LE DEVELOPPEMENT	FR
6	METEO-FRANCE	FR
7	UNIVERSITE PIERRE ET MARIE CURIE - PARIS 6	FR
8	HELMHOLTZ ZENTRUM FUR OZEANFORSCHUNG KIEL	DE
9	LEIBNIZ-INSTITUT FUR OSTSEEFORSCHUNG WARNEMUNDE STIFTUNG	DE
10	JOHANN HEINRICH VON THUENEN-INSTITUT,	DE
	BUNDESFORSCHUNGSINSTITUT FUER LAENDLICHE RAEUME,	
	WALD UND FISCHEREI	
11	CHRISTIAN-ALBRECHTS-UNIVERSITAET ZU KIEL	DE
12	UNIVERSITA CA' FOSCARI VENEZIA	IT
13	WAGENINGEN UNIVERSITY	NL
14	HAVFORSKNINGSINSTITUTTET	NO
15	UNI RESEARCH AS	NO
16	FUNDACIO INSTITUT CATALA DE CIENCIES DEL CLIMA	ES
17	UNIVERSIDAD COMPLUTENSE DE MADRID	ES
18	THE UNIVERSITY OF READING	UK
19	INSTITUTO NACIONAL DE INVESTIGACAO PESQUEIRA	AO
20	MINISTRY OF FISHERIES AND MARINE RESOURCES	NA
21	UNIVERSITY OF CAPE TOWN	ZA
22	INSTITUTO NACIONAL DE DESENVOLVIMENTO DAS PESCAS	CV
23	INSTITUT NATIONAL DE RECHERCHE HALIEUTIQUE	MA
24	INSTITUT SENEGALAIS DE RECHERCHES AGRICOLES	SN
25	UNIVERSITE CHEIKH ANTA DIOP DE DAKAR	SN
26	UNIVERSITE D'ABOMEY-CALAVI	BJ
27	CENTRE DE RECHERCHES OCEANOLOGIQUES	CI
28	UNIVERSITY OF NIGERIA	NG
29	UNIVERSITE LIBRE DE BRUXELLES	BE
30	BARCELONA SUPERCOMPUTING CENTER - CENTRO NACIONAL DE	ES
	SUPERCOMPUTACION	

# FP6 funded projects on Atlantic Ocean (selection)

#### **HERMES**

#### **Hotspot Ecosystem Research on the Margins of European Seas**

Framework: FP6 Duration: 48 months

**Project number:** 511234 **Total Cost:** € 22.728.199,00

**Call:** FP6-2003-GLOBAL-2 **EU Contribution:** € 15.563.458,00

**Instrument:** Consortium: 50 participants

Start date: 2005/04/01 RESEARCH COUNCIL, UK

**End date:** 2009/03/31

#### **Abstract**

The HERMES is designed to gain new insights into the biodiversity, structure, function and dynamics of ecosystems along Europe's deep-ocean margin. It represents the first major attempt to understand European deep-water ecosystems and their environment in an integrated way by bringing together expertise in biodiversity, geology, sedimentology, physical oceanography, microbiology and biogeochemistry, so that the generic relationship between biodiversity and ecosystem functioning can be understood. Study sites will extend from the Arctic to the Black Sea and include open slopes, where landslides and deep-ocean circulation affect ecosystem development, and biodiversity hotspots, such as cold seeps, cold-water coral mounds, canyons and anoxic environments, where the geosphere and hydrosphere influence the biosphere through escape of fluids, presence of gas hydrates and deep-water currents. These important systems require urgent study because of their possible biological fragility, unique genetic resources, global relevance to carbon cycling and possible susceptibility to global change and man-made disturbances. Past changes, including catastrophic events, will be assessed using sediment archives. We will make estimates of the flow rates of methane from the geosphere and calculate how much is utilised by benthic communities, leaving the residual contribution to reach the atmosphere as a greenhouse gas. HERMES will enable forecasting of biodiversity change in relation to natural and man-made environmental changes by developing the first comprehensive pan-European margin Geographic Information System. This will provide a framework for integrating science, environmental modelling and socio-economic indicators in ecosystem management. The results will underpin the development of a comprehensive European Ocean and Seas Integrated Governance Policy enabling risk assessment, management, conservation and rehabilitation options for margin ecosystems.



# Hotspot Ecosystem Research on the Margins of European Seas

No	Name	Country
1	NATURAL ENVIRONMENT RESEARCH COUNCIL	UK
2	INSTITUT FRANCAIS DE RECHERCHE POUR L'EXPLOITATION DE LA MER	FR
3	STICHTING KONINKLIJK NEDERLANDS INSTITUUT VOOR ZEEONDERZOEK (NIOZ)	NL
4	UNIVERSITAT DE BARCELONA	ES
5	HELLENIC CENTRE FOR MARINE RESEARCH	EL
6	LEIBNIZ-INSTITUT FUER MEERESWISSENSCHAFTEN AN DER UNIVERSITAET KIEL	DE
7	CONSIGLIO NAZIONALE DELLE RICERCHE	IT
8	ALFRED-WEGENER-INSTITUT FUER POLAR- UND MEERESFORSCHUNG	DE
9	UNIVERSITETET I TROMSOE	NO
10	NATIONAL UNIVERSITY OF IRELAND, GALWAY	ΙE
11	FRIEDRICH-ALEXANDER-UNIVERSITAT ERLANGEN NURNBERG	DE
12	UNIVERSITEIT GENT	BE
13	AGENCIA ESTATAL CONSEJO SUPERIOR DE INVESTIGACIONES CIENTIFICAS	ES
14	CONSORZIO NAZIONALE INTERUNIVERSITARIO PER LE SCIENZE DEL MARE	IT
15	MAX PLANCK GESELLSCHAFT ZUR FOERDERUNG DER WISSENSCHAFTEN E.V.	DE
16	CENTRE NATIONAL DE LA RECHERCHE SCIENTIFIQUE	FR
17	INSTITUTO HIDROGRAFICO	PT
18	JACOBS UNIVERSITY BREMEN GGMBH	DE
19	UNIVERSITAET BREMEN	DE
20	CARDIFF UNIVERSITY	UK
21	HAVFORSKNINGSINSTITUTTET	NO
22	GOETEBORGS UNIVERSITET	SE
23	UNIVERSITY OF SOUTHAMPTON	UK
24	ISTITUTO NAZIONALE DI OCEANOGRAFIA E DI GEOFISICA SPERIMENTALE OGS	ΙΤ
25	THE UNIVERSITY OF BIRMINGHAM	UK
26	KONINKLIJKE NEDERLANDSE AKADEMIE VAN WETENSCHAPPEN - KNAW	NL
27	THE UNIVERSITY COURT OF THE UNIVERSITY OF ABERDEEN	UK
28	THE UNIVERSITY OF LIVERPOOL	UK
29	DEU INSTITUTE OF MARINE SCIENCES AND TECHNOLOGY (DENIZ	TR

	BILIMLERI VE TEKNOLOJISI ENSTITUSU)	
30	THE SCOTTISH ASSOCIATION FOR MARINE SCIENCE	UK
31	UNIVERSIDADE DE AVEIRO	PT
32	INSTITUTUL NATIONAL DE CERCETARE-DEZVOLTARE PENTRU GEOLOGIE SI GEOECOLOGIE MARINA	RO
33	INTERGOVERNMENTAL OCEANOGRAPHIC COMMISSION OF UNESCO	FR
34	UNIVERSITE PIERRE ET MARIE CURIE - PARIS 6	FR
35	UNIVERSITE DE BRETAGNE OCCIDENTALE	FR
36	UNIVERSITE MOHAMMED V	MA
37	CHALLENGER OCEANIC SYSTEMS AND SERVICES	UK
38	VOLCANIC BASIN PETROLEUM RESEARCH AS	NO
39	PRAESENTIS, S.L.	ES
40	MEDIAN SCP	ES
41	MMCD MULTIMEDIA CONSULTING GMBH	DE
42	OLEX AS	NO
43	ARCHIMEDIX, MOCKL & MUNZEL GBR	DE
44	PROTEUS S.A.	FR
45	HORIBA JOBIN YVON S.A.S.	FR
46	A.O. KOVALEVSKY INSTITUTE OF BIOLOGY OF SOUTHERN SEAS - UKRANIAN NATIONAL ACADEMY OF SCIENCES	UA
47	P.P. SHIRSHOV INSTITUTE OF OCEANOLOGY OF RUSSIAN ACADEMY OF SCIENCES	RU
48	ODESSA NATIONAL I.I. MECHNIKOV UNIVERSITY	UA
49	M V LOMONOSOV MOSCOW STATE UNIVERSITY	RU
50	UNITED NATIONS ENVIRONMENT PROGRAMME	KE

#### **TENATSO**

#### Tropical Eastern North Atlantic Time-Series Observatory

Framework: FP6 Duration: 30 months

**Project number:** 37090 **Total Cost:** € 549,760.00

**Call:** FP6-2005-GLOBAL-4 **EU Contribution:** € 549,760.00

Instrument: SSA - Specific Support Consortium: 6 participants

Action

Start date: 2006/10/01 Project Coordinator: LEIBNIZ-INSTITUT FUER

End date: 2009/03/31 MEERESWISSENSCHAFTEN AN DER UNIVERSITÄT

KIEL, DE

#### **Abstract**

Observation is fundamental to understanding global change. Atmospheric change impacts marine ecosystems, and the atmosphere is influenced by ocean physical and biogeochemical processes. Many impacts/feedbacks are focussed in the Tropics. TENATSO will support pre-operational atmosphere and ocean observation capability in the tropical Eastern North Atlantic Ocean, specifically at Cape Verde (17°36'N, 24°16'W). The entire region is data poor but plays a key role in air-sea interaction. Cape Verde is ideally located for both atmosphere and ocean observation. Being downwind of the Mauritanian up welling, the Observatory will provide unique information linking biological productivity and atmospheric composition. The location is critical for climate and greenhouse g as studies and for investigating dust impacts on marine ecosystems.

The Observatory can contribute data for assessment of major marine biological resources. This Action proposes no research or monitoring: rather it supports transfer of European technology/ expertise to a developing country with strong ties to Europe. The Action is leveraged on financial support by the Partners and the Observatory is of use to European programmes. The atmospheric site will measure meteorological parameters, greenhouse and short-lived gases, and aerosols. Data links to the Global Atmospheric Watch of the WMO will be established. The ocean site will include a mooring for temperature, salinity, current and oxygen measurements and establish data links to international observing programmes. Cape Verde's vessel will be equipped to collect samples for marine parameters. The data will contribute to GEOSS.

The co-location of atmospheric and ocean Observatories is unique. The Observatory will support additional research measurements by international investigators and become a resource to European and international projects.

## **TENATSO**

## Tropical Eastern North Atlantic Time-Series Observatory

No	Name	Country
1	LEIBNIZ-INSTITUT FUER MEERESWISSENSCHAFTEN AN DER UNIVERSITÄT KIEL	DE
2	UNIVERSITY OF YORK	UK
3	INSTITUTO NACIONAL DE METEROLOGIA E GEOFISICA	CV
4	INSTITUTO NACIONAL DE DESENVOLVIMENTO DAS PESCAS	CV
5	LEIBNIZ-INSTITUT FUER TROPOSPHAERENFORSCHUNG E.V.	DE
6	MAX-PLANCK-GESELLSCHAFT ZUR FÖRDERUNG DER	DE
	WISSENSCHAFTEN E.V.	

#### Getting in touch with the EU

#### IN PERSON

All over the European Union there are hundreds of Europe Direct Information Centres. You can find the address of the centre nearest you at: http://europa.eu/contact

#### ON THE PHONE OR BY E-MAIL

Europe Direct is a service that answers your questions about the European Union. You can contact this service

- by freephone: 00 800 6 7 8 9 10 11 (certain operators may charge for these calls),
- at the following standard number: +32 22999696 or
- by electronic mail via: http://europa.eu/contact

#### Finding information about the EU

#### ONI THE

Information about the European Union in all the official languages of the EU is available on the Europa website at: <a href="http://europa.eu">http://europa.eu</a>

#### **EU PUBLICATIONS**

You can download or order free and priced EU publications from EU Bookshop at: http://bookshop.europa.eu. Multiple copies of free publications may be obtained by contacting Europe Direct or your local information centre (see <a href="http://europa.eu/contact">http://europa.eu/contact</a>)

#### EU LAW AND RELATED DOCUMENTS

For access to legal information from the EU, including all EU law since 1951 in all the official language versions, go to EUR-Lex at: <a href="http://eur-lex.europa.eu">http://eur-lex.europa.eu</a>

#### OPEN DATA FROM THE EU

The EU Open Data Portal (http://data.europa.eu/euodp/en/data) provides access to datasets from the EU. Data can be downloaded and reused for free, both for commercial and non-commercial purposes.

This compilation of 40 projects provided in this publication aims to list 31 Horizon 2020 projects on the Atlantic Ocean, including some projects with particular relevance for Cabo Verde. The Horizon 2020 projects have been amended with a small selection from the FP7 (seven projects) and FP6 (two projects) Framework Programmes that are most relevant as input for the event on launching the Marine Research and Innovation Cooperation Arrangement between the European Commission and Cabo Verde in November 2018. Available project information can also be retrieved from the online projects catalogue at <a href="https://cordis.europa.eu/">https://cordis.europa.eu/</a>.

Research and Innovation policy

