



EUROPEAN  
COMMISSION

European  
Research Area

Environment

# Selected projects in Marine research

Period 2007-2010

FP7 - Theme 6 – Environment  
(including climate change)





**European Commission**

**Directorate General for Research  
Environment Directorate**

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Some projects are under negotiation at the date of the preparation of this brochure. The preliminary information presented in this document is based on the proposal evaluation results and shall be considered as provisional and subject to potential modifications in the course of project negotiation.

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## Preface

Oceans and seas are crucial for Europe. In fact our continent is the second-smallest continent in terms of its land area, but we sit between two oceans and five seas and have a coastline of 70,000km. Marine ecosystems are important to humankind both ecologically and economically, providing numerous vital goods and services, and supporting the processes that sustain the entire biosphere.

There is now recognition that Europe's – and indeed the world's – future economic and physical well-being remains linked to its oceans and seas. Given the increasingly sophisticated and expanding global competition faced by Europe, investment in our competitive knowledge-based economy is one of the best ways, indeed perhaps the only way, for EU to foster economic growth and create more and better jobs, whilst at the same time ensuring social progress and environmental sustainability.

Marine science and technology therefore have a crucial role to play in improving our understanding of the oceanic environment and in guiding the practical application of research results for its sustainable management.

The Environment Directorate has long worked on initiatives that have contributed to strengthen European leadership and structuring the European Research Area in this research domain - initially through the Marine Science and Technology programmes, the MAST programmes, launched in 1989, and subsequently within the context of the Fifth, Sixth and Seventh Research Framework Programmes. All these have brought together the resources and expertise needed to strengthen European leadership in domains such climate change, deep sea research, marine biodiversity, genomics, sustainable management of resources, environmental technologies, and earth observation and assessment.

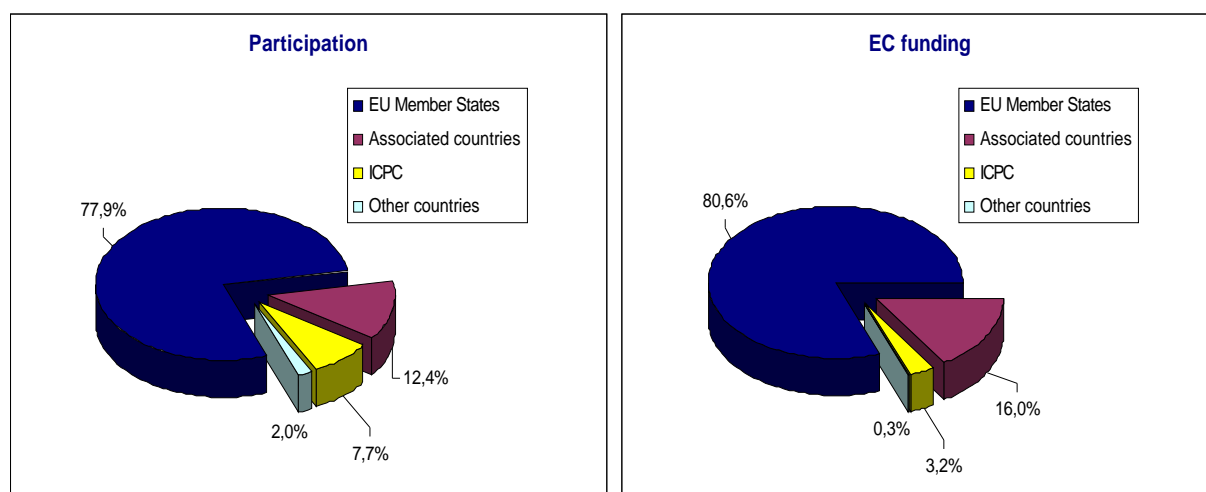
This publication provides a first outline of the research and development activities in the marine domain funded under the FP7 Environment (including climate change) Programme, as a result of the four calls launched during the period between 2007 and 2010. The projects described here address major issues and challenges in marine environmental research, such as the role of the oceans in the climate system, the overexploitation of marine living resources, pressures in coastal zones, the loss of marine biodiversity, etc. In the other hand these projects provide the tools and techniques necessary to allow us to better monitor, understand, protect and manage our oceans and seas.

The main purpose is to assemble and develop knowledge that will improve our scientific and technical competences and contribute to the further consolidation of the European Research Area in the marine research domain.

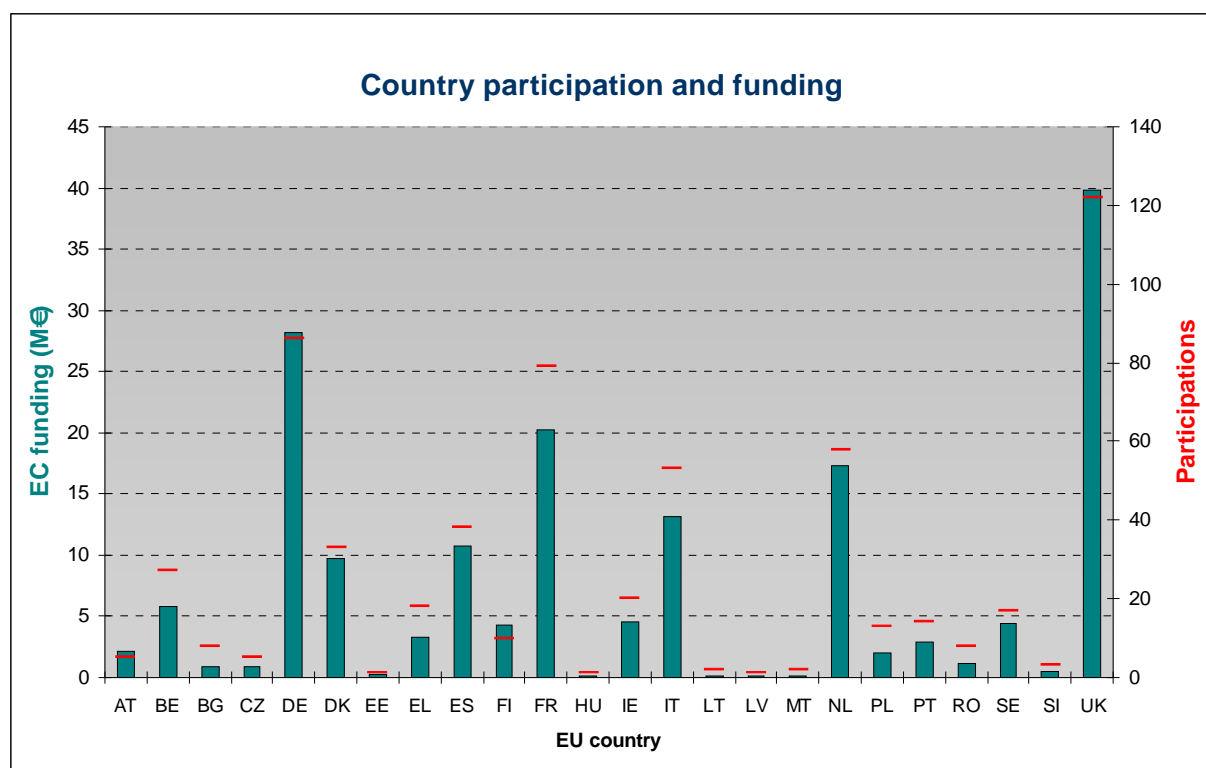


## Introduction

The research activities in this catalogue are presented under four main headings: Climate change, pollution, and risks; Sustainable Management of Resources; Environmental Technologies; Earth observation and assessment tools for sustainable development. These activities cover 46 marine research projects receiving a total EC contribution of approximately 214 M€ (2007-2010 calls) in addition to an EC contribution of 50 M€ to the Joint Baltic Sea Research and Development Programme BONUS. The overall budget representing the total projects' costs is estimated at 288 M€.



More than 800 partners from 61 countries are participating in the presented projects. Six countries (France, Germany, Italy, Netherlands, Norway and United Kingdom) are exceeding the 50 participations, totaling all together about 56% of the involved partners.



**Some useful information about the use of the file (pdf) as available at:**  
[http://ec.europa.eu/research/environment/index\\_en.cfm?pg=publications](http://ec.europa.eu/research/environment/index_en.cfm?pg=publications)

To read the pdf file you will need to install a recent version of the application Acrobat Reader on your computer. Free download of this software is available at <http://www.adobe.com/>

**How to find an EU research project in the catalogue?**

- to browse within the **thematic areas**, projects are sorted per thematic area and the call year
- to browse **alphabetically** on the projects acronyms
- for a **free text search** across the full publication, the 'Find' command (Ctrl+F) and introducing free text keywords (e.g., impact assessment, salmon, MEECE,...)

The hyperlinks to projects web sites are subject to changes (project web sites can move or close, more results can be available ...).

This version is based on September 2010 data.

Theme 6 – Environment (including climate change) List of selected projects sorted by main area of activity				
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Project Number	Acronym	Title	Funding Scheme	Page
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## Research Area Climate Change

212643	THOR	Thermohaline Overturning - at Risk?	CP	11
211384	EPOCA	European Project on Ocean Acidification	CP	12
226375	ICE2SEA	Ice2sea - estimating the future contribution of continental ice to sea-level rise	CP	13
226248	ATP	Arctic Tipping Points	CP	14
243908	PAST4FUTURE	Climate change - Learning from the past climate	CP	15
202798	MICORE	Morphological Impacts and COastal Risks induced by Extreme storm events	CP	16
226534	ARCRISK	Arctic Health Risks: Impacts on health in the Arctic and Europe owing to climate-induced changes in contaminant cycling	CP	17
244132	CLAMER	Climate Change and Marine Ecosystem Research Results	CSA	18
264879	CARBOCHANGE	Changes in carbon uptake and emissions by oceans in a changing climate	CP	19
265103	MEDSEA	MEDiterranean Sea Acidification under changing climate	CP	20



## Research Area Natural Resources Management

212133	EELIAD	European Eels in the Atlantic: Assessment of Their Decline	CP	21
212529	SALSEA-MERGE	Advancing understanding of Atlantic Salmon at Sea: Merging Genetics and Ecology to resolve Stock-specific Migration and Distribution patterns	CP	22
213144	CORALFISH	Assessment of the interaction between corals, fish and fisheries, in order to develop monitoring and predictive modelling tools for ecosystem based management in the deep waters of Europe and beyond	CP	23
212085	MEECE	Marine Ecosystem Evolution in a Changing Environment	CP	24
211700	CAREX	Coordination Action for Research Activities on Life in Extreme Environments	CSA	25
211288	CASPINFO	CASPIAN ENVIRONMENTAL AND INDUSTRIAL DATA & INFORMATION SERVICE	CSA	26
226675	KNOWSEAS	Knowledge-based Sustainable Management for Europe's Seas	CP	27
226354	HERMIONE	Hotspot Ecosystem Research and Man's Impact on European seas	CP	29
226661	MESMA	Monitoring and Evaluation of Spatially Managed Areas (MESMA)	CP	31
244251	SECOA	SOLUTIONS for ENVIRONMENTAL CONTRASTS in COASTAL AREAS	CP	32

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Project Number	Acronym	Title	Funding Scheme	Page
244273	ODEMM	Options for Delivering Ecosystem-Based Marine Management	CP	33
244170	PEGASO	People for Ecosystem Based Governance in Assessing Sustainable Development of Ocean and Coast	CP	34
244161	FORCE	Future of Reefs in a Changing Environment (FORCE): An ecosystem approach to managing Caribbean coral reefs in the face of climate change	CP	35
244099	DS <sup>3</sup> F	The Deep Sea & Sub-Seafloor Frontier	CSA	36
264933	EURO-BASIN	European Union Basin-scale Analysis, Synthesis and Integration (EURO-BASIN)	CP	37
265294	GREENSEAS	Development of global plankton data base and model system for eco-climate early warning	CP	38
244164	MARINETT	European Marine Research Knowledge Transfer and Uptake of Results	CSA	39
244060	MARCOM+	Towards an Integrated Marine and Maritime Science Community	CSA	40
249552	SEAS ERA	Towards integrated European marine research strategy and programmes	CSA	41
265099	EUROMARINE	Integration of European marine research networks of excellence - Euromarine	CSA	42
271534	BONUS	Joint Baltic Sea Research and Development programme (BONUS) undertaken by several Member States with the participation of the Union	CSA	43



## Research Area Environmental Technologies including Cultural Heritage

226880	PROTOOL	PRODUCTIVITY TOOLS: Automated Tools to Measure Primary Productivity in European Seas. A New Autonomous Monitoring Tool to Measure the Primary Production of Major European Seas	CP	44
226225	WRECKPROTECT	Strategies for the protection of shipwrecks in the Baltic Sea against forthcoming attack by wood degrading marine borers. A synthesis and information project based on the effects of climatic changes.	CSA	45
201724	MIDTAL	MICROARRAYS FOR THE DETECTION OF TOXIC ALGAE	CP	46
244104	THESEUS	Innovative coastal technologies for safer European coasts in a changing climate	CP	47



## Research Area Earth Observation

212196	COCOS	Coordination Action Carbon Observation System	CSA	49
202955	EUROSITES	Integration and enhancement of key existing European deep-ocean observatories	CP	50
212887	ACOBAR	Acoustic Technology for observing the interior of the Arctic Ocean	CP	51
226213	HYPOX	In situ monitoring of oxygen depletion in hypoxic ecosystems of coastal and open seas, and land-locked water bodies	CP	52
226364	ENERGEO	Energy Observation for monitoring and assessment of the environmental impact of energy use	CP	53
226740	ENVIROGRIDS	Building Capacity for a Black Sea Catchment Observation and Assessment System supporting Sustainable Development	CP	54

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Project Number	Acronym	Title	Funding Scheme	Page
226456	AWARE	How to achieve sustainable water ecosystems management connecting research, people and policy makers in Europe	CSA	56
226919	COMENVIR	Communicating environmental impacts on water quality, availability and use	CSA	57

**Joint cross sectorial approach among several FP7 themes –  
OCEAN of Tomorrow calls**

265863	ACCESS	Arctic Climate Change, Economy and Society	CP	58
266445	VECTORS	Vectors of Change in Oceans and Seas Marine Life, Impact on Economic Sectors	CP	59
265847	ECO2	Sub-seabed CO2 Storage: Impact on Marine Ecosystems (ECO2)	CP	61

Theme 6 – Environment (including climate change) List of selected projects sorted by project acronym				
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**Activity Code:** ENV.2007.1.1.1.1. **Funding Scheme:** CP **Duration (Months):** 48

**Title:** Thermohaline Overturning - at Risk?

**Proposed EC Grant:** 9.274.427 € **Project homepage:** [www.eu-thor.eu](http://www.eu-thor.eu)

**Main project focus:** Thermohaline circulation

#### Abstract:

THOR will establish an operational system that will monitor and forecast the development of the North Atlantic THC on decadal time scales and assess its stability and the risk of a breakdown in a changing climate. Together with pre-existing data sets, ongoing observations within the project will allow precise quantitative monitoring of the Atlantic THC and its sources. This will, for the first time, allow an assessment of the strength of the Atlantic THC and its sources in a consistent manner and will provide early identification of any systematic changes in the THC that might occur. Analysis of palaeo observations covering the last millennium and millennium time scale experiments with coupled climate models will be carried out to identify the relevant key processes and feedback mechanisms between ocean, atmosphere, and cryosphere. In THOR, the combined effect of various global warming scenarios and melting of the Greenland ice sheet will also be thoroughly assessed in a coupled climate model. Through these studies and through the assimilation of systematic oceanic observations at key locations into ocean circulation models, THOR will forecast the development of the Atlantic THC and its variability until 2025, using global coupled ocean-atmosphere models. THOR will also assess induced climate implications of changes in the THC and the probability of extreme climate events with special emphasis on the European/North Atlantic region. THOR builds upon techniques, methods and models developed during several projects funded within FP5 and FP6 as well as many nationally funded projects. The project will contribute to Global Monitoring for Environment and Security (GMES), to Global Observing Systems such as to the Global Ocean Observing system (GOOS), and to the International Polar Year (IPY).

#### Partners:

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2	MAX PLANCK GESELLSCHAFT ZUR FOERDERUNG DER WISSENSCHAFTEN E.V.	DE
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20	CENTRE NATIONAL DE LA RECHERCHE SCIENTIFIQUE	FR
21	COMMISSARIAT A L' ENERGIE ATOMIQUE	FR



**Activity Code:** ENV.2007.1.1.3.1. **Funding Scheme:** CP **Duration (Months):** 48

**Title:** European Project on Ocean Acidification

**Proposed EC Grant:** 6.548.995 € **Project homepage:** [www.epoca-project.eu](http://www.epoca-project.eu)

**Main project focus:** Ocean acidification

**Abstract:**

The overall goal of the European Project on Ocean Acidification (EPOCA) is to fill the numerous gaps in our understanding of the effects and implications of ocean acidification. EPOCA aims to document the changes in ocean chemistry and biogeography across space and time. Paleo-reconstruction methods will be used on several archives, including foraminifera and deep-sea corals, to determine past variability in ocean chemistry and to tie these to present-day chemical and biological observations. EPOCA will determine the sensitivity of marine organisms, communities and ecosystems to ocean acidification. Molecular to biochemical, physiological and ecological approaches will be combined with laboratory and field-based perturbation experiments to quantify biological responses to ocean acidification, assess the potential for adaptation, and determine the consequences for biogeochemical cycling. Laboratory experiments will focus on key organisms selected on the basis of their ecological, biogeochemical or socio-economic importance. Field studies will be carried out in systems deemed most sensitive to ocean acidification. Results on the chemical, biological and biogeochemical impacts of ocean acidification will be integrated in biogeochemical, sediment and coupled ocean-climate models to better understand and predict the responses of the Earth system to ocean acidification. Special special attention will be paid to the potential feedbacks of the physiological changes in the carbon, nitrogen, sulfur and iron cycles. EPOCA will assess uncertainties, risks and thresholds ("tipping points") related to ocean acidification at scales ranging from sub-cellular, to ecosystem and from local to global. It will also assess pathways of CO<sub>2</sub> emissions required to avoid these thresholds and describe the state change and the subsequent risk to the marine environment and Earth system should these emissions be exceeded.

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23	HAFRANNSOKNASTOFNUNIN	IS
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25	UNIVERSITY OF PLYMOUTH - HIGHER EDUCATION CORPORATION	UK
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**Activity Code:** ENV.2008.1.1.1.1. **Funding Scheme:** CP **Duration (Months):** 51

**Title:** Ice2sea - estimating the future contribution of continental ice to sea-level rise

**Proposed EC Grant:** 9.994.842 € **Project homepage:** [www.ice2sea.eu](http://www.ice2sea.eu)

**Main project focus:** Sea level rise

#### Abstract:

The melting of continental ice (glaciers, ice caps and ice sheets) is a substantial source of current sea-level rise, and one that is accelerating more rapidly than was predicted even a few years ago. Indeed, the most recent report from Intergovernmental Panel on Climate Change highlighted that the uncertainty in projections of future sea-level rise is dominated by uncertainty concerning continental ice, and that understanding of the key processes that will lead to loss of continental ice must be improved before reliable projections of sea-level rise can be produced. The ice2sea programme will draw together European and international partners, to reduce these uncertainties. We will undertake targeted studies of key processes in mountain glacier systems and ice caps (e.g. Svalbard), and in ice sheets in both polar regions (Greenland and Antarctica) to improve understanding of how these systems will respond to future climate change. We will improve satellite determinations of continental ice mass, and provide much-needed datasets for testing glacier-response models. Using newly developed ice-sheet/glacier models, we will generate detailed projections of the contribution of continental ice to sea-level rise over the next 200 years, and identify thresholds that commit the planet to long-term sea-level rise. We will deliver these results in forms accessible to scientists, policy-makers and the general public, which will include clear presentations of the sources of uncertainty. The ice2sea programme will directly inform the ongoing international debate on climate-change mitigation, and European debates surrounding coastal adaptation and sea-defence planning. It will leave a legacy of improved understanding of key cryospheric processes affecting development of the Earth System and the predictive tools for glacier-response modelling, and it will train a new generation of young European researchers who can use those tools for the future benefit of society.

#### Partners:

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5	DANMARKS TEKNISKE UNIVERSITET	DK
6	The Geological Survey of Denmark and Greenland	DK
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8	UNIVERSITEIT UTRECHT	NL
9	CENTRE NATIONAL DE LA RECHERCHE SCIENTIFIQUE (CNRS)	FR
10	MET OFFICE	UK
11	UNIVERSITETET I OSLO	NO
12	UNIVERSITE LIBRE DE BRUXELLES	BE
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23	NORSK POLARINSTITUTT	NO
24	Instytut Geofizyki Polskiej Akademii Nauk	PL

**Activity Code:** ENV.2008.1.1.5.2.**Funding Scheme:** CP**Duration (Months):** 36**Title:** Arctic Tipping Points**Proposed EC Grant:** 4.998.098 € **Project homepage:** [www.eu-atp.org](http://www.eu-atp.org)**Main project focus:** Impacts of climate change in the Arctic**Abstract:**

The broad interdisciplinary consortia assembled in the Arctic Tipping Points (ATP) project will be managed (WP1) to identify the elements of the Arctic marine ecosystem likely to show abrupt changes in response to climate change, and establish the levels of the corresponding climate drivers inducing the regime shift for these tipping elements. ATP will evaluate the consequences of crossing those tipping points, and the associated risks and opportunities for economic activities dependent on the Arctic marine ecosystem. Historical records of Arctic climate change and projections of future changes in Arctic sea climate and ice systems are compiled (WP2), and time series of Arctic ecosystem components analysed using novel statistical tools to detect regime shifts and ecological thresholds and tipping points, and evaluate their sensitivity to climatic forcing (WP3). Experimental manipulations and comparative analyses across broad climatic ranges will be used to detect climatic thresholds and tipping points of Arctic organisms and ecosystems, using genome-wide analyses to develop genomic markers of climate-driven stress useful as early-warning indicators of the proximity of tipping points (WP4). A biological-physical coupled 3 D model will be used to generate future trajectories of Arctic ecosystems under projected climate change scenarios and to identify their consequences for the Arctic ecosystem (WP5). The impacts of abrupt changes in the Arctic ecosystems for activities of strategic importance for the European Arctic and the associated impacts on employment and income will be elucidated, and policies and legislative frameworks to adapt and mitigate these impacts will be analysed (WP 6). The effectiveness of possible alternative, post-Kyoto policies and stabilization targets in avoiding climate-driven thresholds in the Arctic ecosystem will be examined, and the results and projections will be conveyed to policy makers, economic sectors and the public in general (WP7).

**Partners:**

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2	CONSEJO SUPERIOR DE INVESTIGACIONES CIENTIFICAS	ES
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12	KUNGLIGA VETENSKAPSAKADEMIEN	SE
13	MAX PLANCK GESELLSCHAFT ZUR FOERDERUNG DER WISSENSCHAFTEN E.V.	DE

**Activity Code:** ENV.2009.1.1.1.1 **Funding Scheme:** CP **Duration (Months):** 60

**Title:** Climate change - Learning from the past climate

**Proposed EC Grant:** 6.647.909 € **Project homepage:** [www.past4future.eu](http://www.past4future.eu)

**Main project focus:** Climate and environment of past warm periods (interglacials) to inform on future climate and possible abrupt changes

#### Abstract:

Past4Future will combine multidisciplinary paleoclimate records from ice cores, marine cores, speleothems, pollen and other records, concentrating on a global distribution of the records, to reconstruct climate change and variability during the present interglacial (the Holocene) and the last interglacial (known as the Eemian in northwestern Europe and as marine isotope stage 5e in the marine sediment records). The records will be combined in integrated analyses aided by proxy modeling and assimilation, to gain understanding of the climate processes involved in the dynamics of interglacial climates. Earth system models (ESM) including physical and biogeochemical processes will be applied to simulate the past and present interglacial climate, and to confront and intercompare the simulations with climate changes as observed from the palaeodata; this will both advance the models and our understanding of the dynamics and predictability of the climate system. Focus will be on the most recent two interglacial periods, as these provide the highest-resolved most comprehensive data records. Moreover the last interglacial represents a situation where the mean state was warmer than at present in large regions due to orbital forcing, thereby allowing tests of climate system sensitivity to constrain projections of potential future ice sheet, sea-level, circulation and biogeochemical changes. The data and Earth system model results will be used improve our capabilities to project future global and regional warming from a better understanding of relevant paleoclimates, especially in relation to sea level changes, sea ice changes and thermohaline circulation changes. The Past4Future program will draw together a world leading team of European and international partners in a concerted effort to advance our knowledge on the causes, processes and risks of abrupt changes in warm periods, such as those projected for the current and the next century. The program will inform the international debate on climate system stability and the dissemination of results will be targeted to both citizens and governmental and non-governmental stakeholders. It will leave a legacy of improved understanding of past drivers of sea level changes, changes of sea ice, and of greenhouse gas concentrations, and it will train a new generation of young climate researchers to further advance research and improved future predictions for the benefit of society and our capacity to mitigate and adapt to climate changes.

#### Partners:

1	Københavns Universitet	DK
2	UNIFOB AS	NO
3	CENTRE NATIONAL DE LA RECHERCHE SCIENTIFIQUE	FR
4	AARHUS UNIVERSITET	DK
5	UNIVERSITAET BERN	CH
6	AGENCIA ESTATAL CONSEJO SUPERIOR DE INVESTIGACIONES CIENTIFICAS	ES
7	UNIVERSITAT AUTONOMA DE BARCELONA	ES
8	NATURAL ENVIRONMENT RESEARCH COUNCIL	UK
9	UNIVERSITY OF BRISTOL	UK
10	UNIVERSITE CATHOLIQUE DE LOUVAIN	BE
11	UNIVERSITAET BREMEN	DE
12	MAX PLANCK GESELLSCHAFT ZUR FOERDERUNG DER WISSENSCHAFTEN E.V.	DE
13	VERENIGING VOOR CHRISTELIJK HOGER ONDERWIJS WETENSCHAPPELIJK ONDERZOEK EN PATIENTENZORG	NL
14	COMMISSARIAT A L' ENERGIE ATOMIQUE	FR
15	UNIVERSITY COLLEGE LONDON	UK
16	CONSIGLIO NAZIONALE DELLE RICERCHE	IT
17	ALFRED-WEGENER-INSTITUT FUER POLAR- UND MEERESFORSCHUNG	DE
18	THE CHANCELLOR, MASTERS AND SCHOLARS OF THE UNIVERSITY OF CAMBRIDGE	UK
19	PAGES ASSOCIATION	CH
20	UNIVERSITE DE MONTREAL	CA
21	EAST CHINA NORMAL UNIVERSITY ECNU	CN
22	UNIVERSITY OF OTTAWA	CA

Important notice: Provisional data based on evaluation results and subject to modification (see Disclaimer)

**Activity Code:** ENV.2007.1.3.1.1. **Funding Scheme:** CP **Duration (Months):** 36

**Title:** Morphological Impacts and COastal Risks induced by Extreme storm events

**Proposed EC Grant:** 3.499.954 € **Project homepage:** [www.micore.eu](http://www.micore.eu)

**Main project focus:** Study impact of marine storms and the production of early warning and information systems to support long-term disaster reduction.

#### Abstract:

The project is specifically targeted to contribute to the development of a probabilistic mapping of the morphological impact of marine storms and to the production of early warning and information systems to support long-term disaster reduction. A review of historical storms that had a significant impact on a representative number of sensitive European sites will be undertaken. The nine sites are selected according to wave exposure, tidal regime and socio-economical pressures. They include outmost regions of the European Union at the border with surrounding states (e.g. the area of the Gibraltar Strait, the Baltic and Black Sea). All data will be compiled into a homogeneous database of occurrence and related socio-economic damages, including the following information on the characteristics of the storms, on their morphological impacts, on the damages caused on society, on the Civil Protection schemes implemented after the events. Monitoring of selected sites will take place for a period of one year to collect new data sets of bathymetry and topography using state-of-the-arts technology (Lidar, ARGUS, Radar, DGPS). The impact of the storms on living and non-living resources will be done using low-cost portable GIS methods. Numerical models of storm-induced morphological changes will be tested and developed, using both commercial packages and developing a new open-source morphological model. The models will be linked to wave and surge forecasting models to set-up a real-time warning system and to implement its usage within Civil Protection agencies. The most important product of the project will be the conception of Storm Impact Indicators (SIIs) with defined threshold for the identification of major morphological changes and flooding associated risks. Finally, the results of the project will be disseminated as risk maps through an effective Web\_GIS system.

#### Partners:

1	UNIVERSITA DEGLI STUDI DI FERRARA	IT
2	AGENZIA REGIONALE PREVENZIONE E AMBIENTE DELL'EMILIA-ROMAGNA	IT
3	REGIONE EMILIA ROMAGNA	IT
4	UNIVERSIDADE DO ALGARVE	PT
5	FUNDACAO DA FACULDADE DE CIENCIAS DA UNIVERSIDADE DE LISBOA	PT
6	UNIVERSIDAD DE CADIZ	ES
7	BUREAU DE RECHERCHES GEOLOGIQUES ET MINIERES	FR
8	INTERNATIONAL MARINE AND DREDGING CONSULTANTS	BE
9	UNIVERSITY OF PLYMOUTH	UK
10	UNIWERSYTET SZCZECINSKI	PL
11	INSTITUTE OF OCEANOLOGY - BULGARIAN ACADEMY OF SCIENCES	BG
12	STICHTING DELTARES	NL
13	TECHNISCHE UNIVERSITEIT DELFT	NL
14	NATURAL ENVIRONMENT RESEARCH COUNCIL	UK
15	UNIVERSIDAD PABLO DE OLAVIDE	ES
16	CONSORZIO FERRARA RICERCHE	IT



**Activity Code:** ENV.2008.1.2.1.2. **Funding Scheme:** CP **Duration (Months):** 54

**Title:** Arctic Health Risks: Impacts on health in the Arctic and Europe owing to climate-induced changes in contaminant cycling

**Proposed EC Grant:** 3.499.052 € **Project homepage:** [www.arcrisk.eu](http://www.arcrisk.eu)

**Main project focus:** Impacts of climate change on health in the Arctic

#### Abstract:

Long-range transport of contaminants to the Arctic, the resulting exposures observed in Arctic human populations, and impacts of such exposures on human health have been the subject of considerable work in recent years, providing a baseline against which to compare future developments. Global climate change has the potential to remobilize environmental contaminants and alter contaminant transport pathways, fate, and routes of exposure in human populations. The Arctic is particularly sensitive to climate change and already exhibits clear impacts. Research into contaminant exposure and its effects on human health in the Arctic, in comparison with other exposed populations in Europe, presents an opportunity to gain insight into changes that may later impact other areas. The influence of climate change on contaminant spreading and transfer and the resultant risk to human populations in the Arctic and other areas of Europe will be studied by: 1) Research on the ways in which climate change will affect the long-range transport and fate of selected groups of contaminants, and possible implications for the re-distribution of contaminants (geographically and between relevant environmental media). This will involve modelling, utilizing the information base that exists on the distribution of such contaminants in the Arctic and other areas of Europe; 2) Research on the impacts that changing pathways and climatic conditions will have on contaminant uptake and transfer within food webs, leading to foods consumed by humans. This will involve experimental work, process studies and targeted analytical studies, the latter focussed on supporting the modelling work and process studies related to human exposure to contaminants; 3) Research focussing on human health, aimed at determining how climate-mediated changes in the environmental fate of selected groups of contaminants will result in changes in exposure of human populations, in the Arctic and in selected areas of Europe.

#### Partners:

1	Arctic Monitoring and Assessment Programme Secretariat	NO
2	STOCKHOLMS UNIVERSITET	SE
3	AARHUS UNIVERSITET	DK
4	ALFRED-WEGENER-INSTITUT FUER POLAR- UND MEERESFORSCHUNG	DE
5	LANCASTER UNIVERSITY	UK
6	University Centre in Svalbard	NO
7	AGENCIA ESTATAL CONSEJO SUPERIOR DE INVESTIGACIONES CIENTIFICAS	ES
8	IVL SVENSKA MILJÖINSTITUTET AB	SE
9	OULUN YLIOPISTO	FI
10	NORSK INSTITUTT FOR LUFTFORSKNING	NO
11	INSTITUT JOZEF STEFAN	SI
12	O.A. SYS - OCEAN ATMOSPHERE SYSTEMS GMBH	DE
13	MAX PLANCK GESELLSCHAFT ZUR FÖRDERUNG DER WISSENSCHAFTEN E.V.	DE
14	Eidgenössische Technische Hochschule Zürich	CH
15	Masarykova univerzita	CZ
16	NASJONALT FOLKEHELSEINSTITUTT	NO
18	Northwest Public Health Research Center (Russian Ministry of Health and Sciences)	RU
19	ENVIRONMENT CANADA	CA
20	FISHERIES AND OCEANS CANADA	CA
21	HEALTH CANADA	CA
22	UNIVERSITETET I TROMSØ	NO

**Activity Code:** ENV.2009.1.1.6.3      **Funding Scheme:** CSA      **Duration (Months):** 18  
**Title:** Climate Change and Marine Ecosystem Research Results

**Proposed EC Grant:** 991.357 €      **Project homepage:** [www.esf.org/research-areas/marine-sciences/framework-programme-activities/clamer.html](http://www.esf.org/research-areas/marine-sciences/framework-programme-activities/clamer.html)

**Main project focus:** Raise the awareness of European citizens and society at large to the effects of climate change on the marine environment and their socio-economic consequences

#### Abstract:

Although there is no certainty regarding the precise nature and rate of future climate change, even the most moderate scenarios predict a continuing change of the marine environment, with associated major environmental and social impacts. To prepare society for the necessary mitigation and adaptation measures, the awareness of citizens to research results, both certainties and uncertainties, in this specific area should be raised. During the last years, much new information has been gathered in large EU-funded research, but to date this information has not been synthesized nor has it become an important part of public knowledge. The aim of this proposal is to make a synthesis of EU research results on the impacts of climate change on marine environments and to make this knowledge and its socio-economic consequences better known to European citizens and society at large. Together with expert representatives of major Networks of Excellence, large EU projects and research networks, we will produce a state-of-the-art overview of European research results on the effects of climate change on marine environment. An up-to-date overview of public knowledge and perception on the effects of climate change on marine environments and their socio-economic consequences will be produced by means of polls and questionnaires. The results will be used to identify the main issues to be addressed and the best practices to be used during the outreach activities. Enhancement of public knowledge on climate change impacts on the marine environment, including the socio-economic consequences, will be achieved by means of challenging and innovative tools such as an interactive Pan-European conference at the end of 2010 and a high-quality internet-based portal within an e-learning platform. These outreach activities will build upon recent experience as has been gathered within EU-funded research to communicate with European citizens on impacts of climate change on marine ecosystems.

#### Partners:

1	STICHTING KONINKLIJK NEDERLANDS INSTITUUT VOOR ZEEONDERZOEK (NIOZ)	NL
2	FONDATION EUROPEENNE DE LA SCIENCE	FR
3	THE SECRETARY OF STATE FOR ENVIRONMENT, FOOD AND RURAL AFFAIRS	UK
4	VLAAMS INSTITUUT VOOR DE ZEE VZW	BE
5	DANMARKS METEOROLOGISKE INSTITUT	DK
6	PLYMOUTH MARINE LABORATORY	UK
7	UNIVERSITE DE BRETAGNE OCCIDENTALE	FR
8	UNIVERSITA POLITECNICA DELLE MARCHE	IT
9	HELLENIC CENTRE FOR MARINE RESEARCH	EL
10	NATIONAL UNIVERSITY OF IRELAND, GALWAY	IE
11	KONINKLIJKE NEDERLANDSE AKADEMIE VAN WETENSCHAPPEN - KNAW	NL
12	NATURAL ENVIRONMENT RESEARCH COUNCIL	UK
13	UNIVERSITY OF EAST ANGLIA	UK
14	SOPAB BREST SA	FR
15	SIR ALISTER HARDY FOUNDATION FOR OCEAN SCIENCE	UK
16	AGENCIA ESTATAL CONSEJO SUPERIOR DE INVESTIGACIONES CIENTIFICAS	ES
17	UNIVERSITETET I TROMSOE	NO

**Activity Code:** ENV.2010.1.1.3-1 **Funding Scheme:** CP **Duration (Months):** 48

**Title:** Changes in carbon uptake and emissions by oceans in a changing climate

**Proposed EC Grant:** 6.999.906 € **Project homepage:** [not yet available](#)

**Main project focus:** Carbon cycle

#### Abstract:

CARBOCHANGE will provide the best possible process-based quantification of net ocean carbon uptake under changing climate conditions using past and present ocean carbon cycle changes for a better prediction of future ocean carbon uptake. We will improve the quantitative understanding of key biogeochemical and physical processes through a combination of observations and models. We will upscale new process understanding to large-scale integrative feedbacks of the ocean carbon cycle to climate change and rising carbon dioxide concentrations. We will quantify the vulnerability of the ocean carbon sources and sinks in a probabilistic sense using cutting edge coupled Earth system models under a spectrum of emission scenarios including climate stabilisation scenarios as required for the 5th IPCC assessment report. The drivers for the vulnerabilities will be identified. The most actual observations of the changing ocean carbon sink will be systematically integrated with the newest ocean carbon models, a coupled land-ocean model, an Earth system model of intermediate complexity, and fully fledged Earth system models through a spectrum of data assimilation methods as well as advanced performance assessment tools. Results will be optimal process descriptions and most realistic error margins for future ocean carbon uptake quantifications with models under the presently available observational evidence. The project will deliver calibrated future evolutions of ocean pH and carbonate saturation as required by the research community on ocean acidification in the EU project EPOCA and further projects in this field. The time history of atmosphere-ocean carbon fluxes past, present, and future will be synthesised globally as well as regionally for the transcontinental RECCAP project. Observations and model results will merge into GEOSS/GEO through links with the European coordination action COCOS and will prepare the marine branch of the European Research Infrastructure ICOS.

#### Partners:

1	UNIVERSITETET I BERGEN	NO
2	VitusLab	DK
3	INSTITUT FRANCAIS DE RECHERCHE POUR L'EXPLOITATION DE LA MER	FR
4	COMMISSARIAT A L' ENERGIE ATOMIQUE	FR
5	UNIVERSITE PIERRE ET MARIE CURIE - PARIS 6	FR
6	ALFRED-WEGENER-INSTITUT FUER POLAR- UND MEERESFORSCHUNG	DE
7	LEIBNIZ-INSTITUT FUER MEERESWISSENSCHAFTEN AN DER UNIVERSITAET KIEL	DE
8	MAX PLANCK GESELLSCHAFT ZUR FOERDERUNG DER WISSENSCHAFTEN E.V.	DE
9	UNIVERSITAET BREMEN	DE
10	HAFRANNSOKNASTOFNUNIN	IS
11	NATIONAL UNIVERSITY OF IRELAND, GALWAY	IE
12	INSTITUT NATIONAL DE RECHERCHE HALIEUTIQUE	MA
13	STICHTING KONINKLIJK NEDERLANDS INSTITUUT VOOR ZEEONDERZOEK (NIOZ)	NL
14	STIFTELSEN NANSEN SENTER FOR FJERNMAALING	NO
15	UNIFOB AS	NO
16	AGENCIA ESTATAL CONSEJO SUPERIOR DE INVESTIGACIONES CIENTIFICAS	ES
17	UNIVERSIDAD DE LAS PALMAS DE GRAN CANARIA	ES
18	GOETEBORGS UNIVERSITET	SE
19	Eidgenössische Technische Hochschule Zürich	CH
20	UNIVERSITAET BERN	CH
21	MET OFFICE	UK
22	NATURAL ENVIRONMENT RESEARCH COUNCIL	UK
23	PLYMOUTH MARINE LABORATORY	UK
24	UNIVERSITY OF BRISTOL	UK
25	UNIVERSITY OF EAST ANGLIA	UK
26	COUNCIL FOR SCIENTIFIC AND INDUSTRIAL RESEARCH	ZA
27	TRUSTEES OF PRINCETON UNIVERSITY	US

Important notice: Provisional data based on evaluation results and subject to modification (see Disclaimer)

**Activity Code:** ENV.2010.1.1.5-1 **Funding Scheme:** CP **Duration (Months):** 36

**Title:** MEDiterranean Sea Acidification under changing climate

**Proposed EC Grant:** 3.490.179 € **Project homepage:** [not yet available](#)

**Main project focus:** Mediterranean Sea acidification

#### Abstract:

Increases of atmospheric CO<sub>2</sub> and associated decreases in seawater pH and carbonate ion concentration this century and beyond are likely to have wide impacts on marine ecosystems including those of the Mediterranean Sea. Consequences of this process, ocean acidification, threaten the health of the Mediterranean, adding to other anthropogenic pressures, including those from climate change. Yet in comparison to other areas of the world ocean, there has been no concerted effort to study Mediterranean acidification, which is fundamental to the social and economic conditions of more than 400 million people living along its coastlines and another 175 million who visit the region each year. The MedSeA project addresses ecologic and economic impacts from the combined influences of anthropogenic acidification and warming, while accounting for the unique characteristics of this key region. MedSeA will forecast chemical, climatic, ecological-biological, and socio-economical changes of the Mediterranean driven by increases in CO<sub>2</sub> and other greenhouse gases, while focusing on the combined impacts of acidification and warming on marine shell and skeletal building, productivity, and food webs. We will use an interdisciplinary approach involving biologists, earth scientists, and economists, through observations, experiments, and modelling. These experts will provide science-based projections of Mediterranean acidification under the influence of climate change as well as associated economic impacts. Projections will be based on new observations of chemical conditions as well as new observational and experimental data on the responses of key organisms and ecosystems to acidification, which will be fed into existing ocean models that have been improved to account for the Mediterranean's fine-scale features. These scientific advances will allow us to provide the best advice to policymakers who must develop regional strategies for adaptation and mitigation.

#### Partners:

1	UNIVERSITAT AUTONOMA DE BARCELONA	ES
2	UNIVERSITE DE PERPIGNAN	FR
3	BAR ILAN UNIVERSITY	IL
4	HELLENIC CENTRE FOR MARINE RESEARCH	EL
5	CENTRO EURO-MEDITERRANEO PER I CAMBIAMENTI CLIMATICI SCARL	IT
6	UNIVERSITE PIERRE ET MARIE CURIE - PARIS 6	FR
7	PLYMOUTH MARINE LABORATORY	UK
8	AGENCIA ESTATAL CONSEJO SUPERIOR DE INVESTIGACIONES CIENTIFICAS	ES
9	UNIVERSITY OF PLYMOUTH	UK
10	ALFRED-WEGENER-INSTITUT FUER POLAR- UND MEERESFORSCHUNG	DE
11	CONSORZIO NAZIONALE INTERUNIVERSITARIO PER LE SCIENZE DEL MARE	IT
12	NACIONALNI INSTITUT ZA BIOLOGIJO	SI
13	INSTITUT NATIONAL DE RECHERCHE HALIEUTIQUE	MA
14	National Institute of Oceanography and Fisheries	EG
15	University of Sfax	TN
16	ISTITUTO NAZIONALE DI OCEANOGRAFIA E DI GEOFISICA SPERIMENTALE OGS	IT
17	COMMISSARIAT A L' ENERGIE ATOMIQUE	FR

**Activity Code:** ENV.2007.2.2.1.2. **Funding Scheme:** CP **Duration (Months):** 48

**Title:** European Eels in the Atlantic: Assessment of Their Decline

**Proposed EC Grant:** 2.634.712 € **Project homepage:** [www.eeliad.com](http://www.eeliad.com)

**Main project focus:** Research on Atlantic eels

#### Abstract:

Eels play an important socioeconomic and ecological role in many European countries. Recruitment failure has contributed to a halving of catches from 40,000t in the last three decades to less than 20,000t today. The EU's Eel Recovery Plan aims to maximize silver eel production and escapement to the sea to maintain the stock's reproductive potential. However, very little is known about the contribution of eels of different European river systems to successful recruitment because almost nothing is known about the life of silver eels once they escape to the sea. We propose a research initiative to investigate the ecology and environmental dependencies of European eels during their spawning migration. Archival tags that detach from their eel hosts and communicate stored data via satellite will be used to determine migration routes, migration success and habitat preferences of different stock components. The information will be integrated with studies on eels in riverine and estuarine habitats, and leading edge biochemical techniques, to determine the most important eel habitats to conserve to enhance and conserve eel stocks in the UK and across Europe

#### Partners:

1	THE SECRETARY OF STATE FOR ENVIRONMENT, FOOD AND RURAL AFFAIRS	UK
2	DANMARKS TEKNISKE UNIVERSITET	DK
3	STIFTELSEN NORSK INSTITUTT FOR NATURFORSKNING	NO
4	CENTRAL FISHERIES BOARD	IE
5	MARINE INSTITUTE	IE
6	INSTITUT FRANCAIS DE RECHERCHE POUR L'EXPLOITATION DE LA MER	FR
7	CENTRE NATIONAL DU MACHINISME AGRICOLE, DU GENIE RURAL, DES EAUX ET DES FORETS	FR
8	FISKERIVERKET	SE
9	MUSEUM NATIONAL D'HISTOIRE NATURELLE	FR
10	CENTRE NATIONAL DE LA RECHERCHE SCIENTIFIQUE (CNRS)	FR
12	CONSEJO SUPERIOR DE INVESTIGACIONES CIENTIFICAS	ES



**Activity Code:** ENV.2007.2.2.1.2. **Funding Scheme:** CP **Duration (Months):** 36

**Title:** Advancing understanding of Atlantic Salmon at Sea: Merging Genetics and Ecology to resolve Stock-specific Migration and Distribution patterns

**Proposed EC Grant:** 3.499.762 € **Project homepage:** [www.nasco.int/sas/salseamerge.htm](http://www.nasco.int/sas/salseamerge.htm)

**Main project focus:** Research on Atlantic salmon

#### Abstract:

Over the past two decades, an increasing proportion of North Atlantic salmon are dying at sea during their oceanic feeding migration. The specific reasons for the decline in this important species are as yet unknown, however, climate change is likely to be an important factor. In some rivers in the southern part of the salmon's range, wild salmon now face extinction. This is in spite of unprecedented management measures to halt this decline. Arguably the greatest challenge in salmon conservation is to gain insight into the spatial and ecological use of the marine environment by different regional and river stocks, which are known to show variation in marine growth, condition, and survival. Salmon populations may migrate to different marine zones, whose environmental conditions may vary. To date it has been impossible to sample and identify the origin of sufficient numbers of wild salmon at sea to enable this vital question to be addressed. SALSEA-Merge will provide the basis for advancing our understanding of oceanic-scale, ecological and ecosystem processes. Such knowledge is fundamental to the future sustainable management of this key marine species. Through a partnership of 9 European nations the programme will deliver innovation in the areas of: genetic stock identification techniques, new genetic marker development, fine scale estimates of growth on a weekly and monthly basis, the use of novel high seas pelagic trawling technology and individual stock linked estimates of food and feeding patterns. In addition, the use of the three-dimensional Regional Ocean Modelling System, merging hydrography, oceanographic, genetic and ecological data, will deliver novel stock specific migration and distribution models. This widely supported project, provides the basis for a comprehensive investigation into the problems facing salmon at sea. It will also act as an important model for understanding the factors affecting survival of many other important marine species.

#### Partners:

1	HAVFORSKNINGSINSTITUTTET	NO
2	MARINE INSTITUTE	IE
3	THE SCOTTISH MINISTERS ACTING THROUGH FISHERIES RESEARCH SERVICES	UK
4	STIFTELSEN NORSK INSTITUTT FOR NATURFORSKNING	NO
5	THE UNIVERSITY OF EXETER	UK
6	UNIVERSITY COLLEGE CORK, NATIONAL UNIVERSITY OF IRELAND, CORK	IE
7	QUEEN'S UNIVERSITY BELFAST	UK
8	SWANSEA UNIVERSITY	UK
9	DANMARKS TEKNISKE UNIVERSITET	DK
10	VEIDIMALASTOFNUN INSTITUTE OF FRESHWATER FISHERIES IFL	IS
11	TURUN YLIOPISTO	FI
12	UNIVERSIDAD DE OVIEDO	ES
13	GENINDEXE	FR
14	RIISTA- JA KALATALOUDEN TUTKIMUSLAITOS	FI
15	FISKIRANNSOKNARSTOVAN	FO
16	ATLANTIC SALMON TRUST	UK
17	INTERNATIONAL ATLANTIC SALMON RESEARCH BOARD	UK
18	Fondation d'entreprise TOTAL	FR
19	CONSERVATOIRE NATIONAL DU SAUMON SAUVAGE	FR
20	LOUGHS AGENCY (FCILC)	UK

**Activity Code:** ENV.2007.2.2.1.3. **Funding Scheme:** CP **Duration (Months):** 48

**Title:** Assessment of the interaction between corals, fish and fisheries, in order to develop monitoring and predictive modelling tools for ecosystem based management in the deep waters of Europe and beyond

**Proposed EC Grant:** 6.499.906 € **Project homepage:** [eu-fp7-coralfish.net](http://eu-fp7-coralfish.net)

**Main project focus:** Deep sea research/corals

#### Abstract:

In 2006, the UN General Assembly Resolution (AL61/L38) called upon fisheries management organisations worldwide to: i) assess the impact of bottom fishing on vulnerable marine ecosystems, ii) identify/map vulnerable ecosystems through improved scientific research/data collection, and iii) close such areas to bottom fishing unless conservation and management measures were established to prevent their degradation. In European deep waters, in addition, there is now a need to establish monitoring tools to evaluate the effectiveness of closed areas for the conservation of biodiversity and fish and their impact on fisheries. Currently the tools necessary to achieve these management goals are wholly lacking. CoralFISH aims to support the implementation of an ecosystem-based management approach in the deep-sea by studying the interaction between cold-water coral habitat, fish and fisheries. CoralFISH brings together a unique consortium of deep-sea fisheries biologists, ecosystem researchers/modellers, economists and a fishing industry SME, who will collaborate to collect data from key European marine eco-regions. CoralFISH will: i) develop essential methodologies and indicators for baseline and subsequent monitoring of closed areas, ii) incorporate fish into coral ecosystem models to better understand coral fish-carrying capacity, iii) evaluate the distribution of deepwater bottom fishing effort to identify areas of potential interaction and impact upon coral habitat, iv) use genetic fingerprinting to assess the potential erosion of genetic fitness of corals due to long-term exposure to fishing impacts, v) construct bio-economic models to assess management effects on corals and fisheries to provide policy options, and vi) produce as a key output, habitat suitability maps both regionally and for OSPAR Area V to identify areas likely to contain vulnerable habitat. The latter will provide the EU with the tools to address the issues raised by the UNGA resolution.

#### Partners:

1	NATIONAL UNIVERSITY OF IRELAND, GALWAY	IE
2	HAVFORSKNINGSINSTITUTTET	NO
3	HAFRANNSOKNASTOFNUNIN	IS
4	INSTITUT FRANCAIS DE RECHERCHE POUR L'EXPLOITATION DE LA MER	FR
5	IMAR- INSTITUTO DO MAR	PT
6	HELLENIC CENTRE FOR MARINE RESEARCH	EL
7	CONSORZIO NAZIONALE INTERUNIVERSITARIO PER LE SCIENZE DEL MARE	IT
8	KONINKLIJKE NEDERLANDSE AKADEMIE VAN WETENSCHAPPEN - KNAW	NL
9	Zoological Society of London, Institute of Zoology	UK
10	UNIVERSITETET I TROMSOE	NO
11	THE UNIVERSITY COURT OF THE UNIVERSITY OF ABERDEEN	UK
12	STICHTING KONINKLIJK NEDERLANDS INSTITUUT VOOR ZEEONDERZOEK (NIOZ)	NL
13	O'MALLEY FISHERIES	IE
14	FRIEDRICH-ALEXANDER UNIVERSITAET ERLANGEN-NUERNBERG	DE
15	UNIVERSITY COLLEGE CORK, NATIONAL UNIVERSITY OF IRELAND, CORK	IE
16	UNIVERSITAET BREMEN	DE

**Activity Code:** ENV.2007.2.2.1.4. **Funding Scheme:** CP **Duration (Months):** 48

**Title:** Marine Ecosystem Evolution in a Changing Environment

**Proposed EC Grant:** 6.499.745 € **Project homepage:** [www.meece.eu](http://www.meece.eu)

**Main project focus:** Integrated analysis and understating of multiple pressures on marine ecosystems/modelling

**Abstract:**

MEECE is a scientific research project which aims to use a combination of data synthesis, numerical simulation and targeted experimentation to further our knowledge of how marine ecosystems will respond to combinations of multiple climate change and anthropogenic drivers. With an emphasis on the European Marine Strategy (EMS), MEECE will improve the decision support tools to provide a structured link between management questions and the knowledge base that can help to address those questions. A strong knowledge transfer element will provide an effective means of communication between end-users and scientists.

**Partners:**

1	PLYMOUTH MARINE LABORATORY	UK
2	UNIVERSITETET I BERGEN	NO
3	UNIVERSITAT HAMBURG	DE
4	FUNDACION AZTI/AZTI FUNDAZIOA	ES
5	ALMA MATER STUDIORUM-UNIVERSITA DI BOLOGNA	IT
6	Wageningen IMARES	NL
7	THE SECRETARY OF STATE FOR ENVIRONMENT, FOOD AND RURAL AFFAIRS	UK
8	NATURAL ENVIRONMENT RESEARCH COUNCIL	UK
9	INSTITUT DE RECHERCHE POUR LE DEVELOPPEMENT	FR
10	DANMARKS TEKNISKE UNIVERSITET	DK
11	HAVFORSKNINGSINSTITUTTET	NO
12	MIDDLE EAST TECHNICAL UNIVERSITY	TR
13	HELLENIC CENTRE FOR MARINE RESEARCH	EL
14	CENTRE NATIONAL DE LA RECHERCHE SCIENTIFIQUE (CNRS)	FR
15	SIR ALISTER HARDY FOUNDATION FOR OCEAN SCIENCE	UK
16	UNIVERSITA DEGLI STUDI DEL PIEMONTE ORIENTALE AMEDEO AVOGADRO	IT
17	KLAIPEDOS UNIVERSITETAS	LT
18	BOLDING & BURCHARD APS	DK
19	INSTITUTO ESPANOL DE OCEANOGRAFIA	ES
20	COMMISSARIAT ENERGIE ATOMIQUE CEA	FR
21	SYDDANSK UNIVERSITET	DK
22	UNIVERSITY OF CAPE TOWN	ZA

**Activity Code:** ENV.2007.2.2.1.6. **Funding Scheme:** CSA **Duration (Months):** 36

**Title:** Coordination Action for Research Activities on Life in Extreme Environments

**Proposed EC Grant:** 1.199.524 € **Project homepage:** [www.carex-eu.org](http://www.carex-eu.org)

**Main project focus:** Deep sea research

**Abstract:**

Life in Extreme Environments (LEXEN) is an emerging area of research in which Europe has considerable expertise but a relatively fragmented research infrastructure. The science of such environments has enormous relevance for our knowledge of the diversity and environmental limits of microbial, plant and animal life and the novel strategies employed for survival and growth. Such studies are essential in understanding how life established on the early Earth and in assessing the possibilities for life on other planetary bodies. These environments are also a rich source of novel exploitable compounds. The Work Programme identifies a need for better coordination of LEXEN research and CAREX aims to address this need by developing a clearly identifiable, dynamic and durable community. Establishing this community will encourage greater inter-disciplinarity and increasing knowledge of extreme environments. It will provide a target for young career scientists and allow a more focussed dialogue with other science areas, with funding agencies, with industrial groups and with international organisations outside Europe. CAREX deliverables will include a strategic roadmap for European LEXEN research (including enabling technologies), diverse opportunities for knowledge transfer, standardisation of methodologies, encouragement and support for early career scientists and a network of links to relevant organisations. These deliverables together with improved community networking, supported by newsletters, promotional leaflets, a series science publications and an interactive web portal, will help consolidate the community and its identity. Outcomes will be facilitated through science/technology workshops, diverse forums, field/laboratory protocol intercomparisons, a summer school and individual grants to facilitate knowledge transfer. CAREX has evolved with the key players from the highly successful ESF "Investigating Life in Extreme Environments" initiative .

**Partners:**

1	NATURAL ENVIRONMENT RESEARCH COUNCIL	UK
2	CENTRE NATIONAL DE LA RECHERCHE SCIENTIFIQUE (CNRS)	FR
3	CONSIGLIO NAZIONALE DELLE RICERCHE	IT
4	DEUTSCHES ZENTRUM FÜR LUFT UND RAUMFAHRT E.V.	DE
5	FONDATION EUROPEENNE DE LA SCIENCE	FR
6	INSTITUT FRANCAIS DE RECHERCHE POUR L'EXPLOITATION DE LA MER	FR
7	BOTANICKY USTAV AVCR	CZ
8	INSTITUTO NACIONAL DE TECNICA AEROESPACIAL	ES
9	MATIS OHF	IS

**Activity Code:** ENV.2007.2.2.1.8. **Funding Scheme:** CSA **Duration (Months):** 30

**Title:** CASPIAN ENVIRONMENTAL AND INDUSTRIAL DATA & INFORMATION SERVICE

**Proposed EC Grant:** 800.697 € **Project homepage:** [www.caspinfo.net](http://www.caspinfo.net)

**Main project focus:** Development of environmental data and information services

**Abstract:**

CASPINFO aims at strengthening the regional capacity and performance of marine environmental data & information management, and adoption of international meta-data standards and data-management practices, involving stakeholders from management, research, and industry. The objectives are: • To initiate and maintain a Caspian Sea network of leading environmental and socio-economic research institutes, governmental departments, oil & gas industries, and international bodies, jointly working on the definition, development and operation of the CASPINFO service. • Development and establishment of an Internet based CASPINFO Data & Information Service to facilitate the access to socio-economic and legal information, metadata and distributed datasets, managed by the regional partners, and to support marine environmental management. • To explore and to develop a sustainable operation model for the CASPINFO service, thereby taking into account that the partners are coming from different backgrounds (public and private sectors) and possibly will deal with a mix of public and commercial data & information. Improved access to high quality, up-to-date environmental, economic, social and industrial (meta-) data and information, is a key issue. The CASPINFO data & information service will serve as a repository for relevant, available marine environmental and industrial (meta-) data and serve as an important instrument for marine environmental scientists, oil & gas industry and other marine industries, governmental decision makers and managers and the general public. Interoperability and harmonisation with other European systems are key conditions. CASPINFO will zoom in on the environment, but moreover on supporting assessments of impacts and effectiveness of measures concerning oil & gas industry activities, which are of great economic importance to the region. CASPINFO will also be promoted to other marine industries, that might benefit from the service.

**Partners:**

1	MARIENE INFORMATIE SERVICE MARIS BV	NL
2	Sumgayit Center for Environmental Rehabilitation	AZ
3	INSTITUTE OF GEOGRAPHY NAMED H A ALIYEV NATIONAL ACADEMY OF SCIENCES OF AZERBAIJAN	AZ
4	INSTITUTE OF GEOGRAPHY	KZ
5	UNITED NATIONS DEVELOPMENT PROGRAMME	US
6	GOSUDARSTVENNOE UCHREZHDENIE GOSUDARSTVENNIY OKEANOGRAFICHESKIY INSTITUT-STATE OCEANOGRAPHIC INSTITUTE SO	RU
7	INSTITUT PROBLEM EKOLOGII I EVOLYUCII IM A N SEVERTSOV ROSSIISKAYA AKADEMIYA NAUK*SIEE-RAS A.N.SEVERTSOVINSTITUTE OF ECOLOGY AND EVOLUTION	RU
8	P.P. SHIRSHOV INSTITUTE OF OCEANOLOGY OF RUSSIAN ACADEMY OF SCIENCES	RU
9	CASPIAN MARINE SCIENTIFIC AND RESEARCH CENTER OF ROSHYDROMET	RU
10	INSTITUT GEOEKOLOGII ROSSIYSKOY AKADEMII NAUK	RU
12	PERMANENT SECRETARIAT OF THE COMMISSION ON THE PROTECTION OF THE BLACKSEA AGAINST POLLUTION	TR
13	HELLENIC CENTRE FOR MARINE RESEARCH	EL
14	CONSIGLIO NAZIONALE DELLE RICERCHE	IT
15	STATE OIL COMPANY OF THE AZERBAIJAN REPUBLIC INVESTMENT DIVISION	AZ
17	DAGESTANSKIY GOSUDARSTVENNIY UNIVERSITET	RU
18	M V LOMONOSOV MOSCOW STATE UNIVERSITY	RU
19	UNITED NATIONS EDUCATIONAL, SCIENTIFIC AND CULTURAL ORGANIZATION -UNESCO	FR



**Activity Code:** ENV.2008.2.2.1.3. **Funding Scheme:** CP **Duration (Months):** 48

**Title:** Knowledge-based Sustainable Management for Europe's Seas

**Proposed EC Grant:** 5.764.200 € **Project homepage:** [www.knowseas.com](http://www.knowseas.com)

**Main project focus:** Ecosystem approach to marine ecosystem management

#### Abstract:

Europe's four regional seas (Baltic, Black, Mediterranean and NE Atlantic) have suffered severe environmental degradation due to human pressure. Existing measures to manage pressures have proven inadequate and the EC has responded by proposing a new policy (Maritime Strategy Blue Book) and environmental legislation (Marine Strategy Directive), both currently close to adoption. These instruments rely on the Ecosystem Approach, a management paradigm that encompasses humans and the supporting ecosystem. But the science base for this approach needs strengthening and practical tools must be developed and tested for policy implementation. In particular, criteria for assessing costs and benefits of management actions are poorly developed, particularly in the complex marine environment where multiple uses and management conflicts are common. The KnowSeas consortium will strengthen the science base for managing Europe's seas through the practical application of systems thinking. It will work at the two scales envisaged for emergent EU policy: the Regional Sea Scale and Member State Economic Exclusive Zones (EEZs). We have developed a new approach of Decision Space Analysis to investigate mismatches of scale. Knowledge created through the FP6 European Lifestyles and Marine Ecosystems project, augmented with necessary new studies of climate effects, fisheries and maritime industries - in EEZ case studies - will provide a basis for assessing changes to natural systems and their human causes. New research will examine and model economic and social impacts of changes to ecosystem goods and services and costs and benefits of various management options available through existing and proposed policy instruments. Institutional and social analysis will determine conflicts of interest and examine governance as well as stakeholder values and perceptions. Our research will develop and test an assessment toolbox through regional liaison groups and a multisectoral Project Advisory Board.

#### Partners:

1	THE SCOTTISH ASSOCIATION FOR MARINE SCIENCE	UK
2	ALFRED-WEGENER-INSTITUT FUER POLAR- UND MEERESFORSCHUNG	DE
3	STOCKHOLMS UNIVERSITET	SE
4	THE SECRETARY OF STATE FOR ENVIRONMENT, FOOD AND RURAL AFFAIRS	UK
5	CONSIGLIO NAZIONALE DELLE RICERCHE	IT
7	AGENCIA ESTATAL CONSEJO SUPERIOR DE INVESTIGACIONES CIENTIFICAS	ES
8	STICHTING DELTARES	NL
9	ENVISION MANAGEMENT LTD	UK
10	EUCC - Coastal & Marine Union	NL
11	GKSS - FORSCHUNGSZENTRUM GEESTHACHT GMBH	DE
12	INSTITUTE FOR EUROPEAN ENVIRONMENTAL POLICY, LONDON	UK
13	IMAR- INSTITUTO DO MAR	PT
14	INSTITUTE OF OCEANOLOGY - BULGARIAN ACADEMY OF SCIENCES	BG
15	KONINKLIJKE NEDERLANDSE AKADEMIE VAN WETENSCHAPPEN - KNAW	NL
16	UNIVERSITA DEGLI STUDI DI PADOVA	IT
17	MEGAPESCA FORMACAO PROFISSIONAL EPRESTACAO DE SERVICOS LDA	PT
18	MIDDLE EAST TECHNICAL UNIVERSITY	TR
19	NORSK INSTITUTT FOR LUFTFORSKNING	NO
20	SIR ALISTER HARDY FOUNDATION FOR OCEAN SCIENCE	UK
21	UNIVERSITY OF PLYMOUTH	UK
22	SYDDANSK UNIVERSITET	DK
23	Morski Instytut Rybacki w Gdyni	PL
24	SUOMEN YMPARISTOKESKUS	FI
25	UNIVERSITE DE BRETAGNE OCCIDENTALE	FR
26	UNIVERSITY COLLEGE CORK, NATIONAL UNIVERSITY OF IRELAND, CORK	IE
27	UNIVERSITY OF EAST ANGLIA	UK
28	UNIVERSITETET I BERGEN	NO

Important notice: Provisional data based on evaluation results and subject to modification (see Disclaimer)

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29	UNIVERSITA CA' FOSCARI DI VENEZIA	IT
30	UNIVERSITY OF BATH	UK
31	VERENIGING VOOR CHRISTELIJK HOGER ONDERWIJS WETENSCHAPPELIJK ONDERZOEK EN PATIENTENZORG	NL

**Activity Code:** ENV.2008.2.2.1.2. **Funding Scheme:** CP **Duration (Months):** 36

**Title:** Hotspot Ecosystem Research and Man's Impact on European seas

**Proposed EC Grant:** 7.998.955 € **Project homepage:** [www.eu-hermione.net](http://www.eu-hermione.net)

**Main project focus:** Deep sea research

#### 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 biologists, ecologists, microbiologists, biogeochemists, sedimentologists, physical oceanographers, modelers and socio-economists) that will integrate biodiversity, specific adaptations and biological capacity in the context of a wide range of highly vulnerable deep-sea 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.

#### Partners:

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	IE
11	FRIEDRICH-ALEXANDER UNIVERSITAET ERLANGEN-NUERNBERG	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 GMBH	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 MARINE SCIENCE	UK
28	UNIVERSIDADE DE AVEIRO	PT
29	UNIVERSITE PIERRE ET MARIE CURIE - PARIS 6	FR

Important notice: Provisional data based on evaluation results and subject to modification (see Disclaimer)

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30	P.P. SHIRSHOV INSTITUTE OF OCEANOLOGY OF RUSSIAN ACADEMY OF SCIENCES	RU
31	UNITED NATIONS ENVIRONMENT PROGRAMME	KE
32	Universidade dos Açores	PT
33	Median SCP	ES
34	ArchimediX, Möckl & Munzel GbR	DE
35	EPITROPI EREUNON PANEPISTIMIOU THESSALIAS	EL
36	UNIVERSITY COLLEGE CORK, NATIONAL UNIVERSITY OF IRELAND, CORK	IE
37	National Marine Aquarium Ltd.	UK
38	COSTA EDUTAINMENT S.P.A	IT

**Activity Code:** ENV.2008.2.2.1.1. **Funding Scheme:** CP **Duration (Months):** 48  
**Title:** Monitoring and Evaluation of Spatially Managed Areas (MESMA)

**Proposed EC Grant:** 6.568.842 € **Project homepage:** [www.mesma.org](http://www.mesma.org)

**Main project focus:** Spatial management

#### Abstract:

The increasing pressures upon the marine realm call for a well planned approach of further spatial development of this area. An ecosystem-based approach to fisheries, the increasing demand for sustainable energy, coastal defence systems, building materials and safe transport routes and the need to protect marine habitats and species all compete for the same valuable space. At the same time climate change will alter the composition and functioning of marine ecosystems, calling for a robust approach of future spatial planning that also takes cross boundary developments into account. MESMA will supply innovative methods and integrated strategies for governments, local authorities, stakeholders and other managerial bodies for planning and decision making at different local, national and European scales. This will also comprise an easy accessible information system to gain support from politicians, stakeholders and the public in general for difficult (inter)national decisions that will be needed for sustainable use and protection of this vulnerable area. This data system, containing information on the distribution of marine habitats and species, economic values and benefits and human uses and its effects will also be an interface between science, policy and decision makers. MESMA will supply strategic tools for sustainable development of European seas and coastal areas. The major challenge is to combine an optimized use with a sustained ecosystem of high quality, taking into account ecological and economic differences. By studying and comparing different national situations and solutions from a selected number of sites throughout Europe and by determining common features and differences, including the socio-economic settings and requirements, an integrated toolbox that can be applied throughout Europe will be made available.

#### Partners:

1	Wageningen IMARES	NL
2	UNIVERSITY COLLEGE LONDON	UK
3	Senckenbergische Naturforschende Gesellschaft	DE
4	UNIVERSITEIT GENT	BE
5	HELLENIC CENTRE FOR MARINE RESEARCH	EL
6	INSTITUTE OF OCEANOLOGY - BULGARIAN ACADEMY OF SCIENCES	BG
7	HAVFORSKNINGSINSTITUTTET	NO
8	UNIVERSITY COLLEGE CORK, NATIONAL UNIVERSITY OF IRELAND, CORK	IE
9	CONSIGLIO NAZIONALE DELLE RICERCHE	IT
10	FUNDACION AZTI/AZTI FUNDAZIOA	ES
11	MINISTRY FOR RESOURCES AND RURAL AFFAIRS	MT
12	DANMARKS TEKNISKE UNIVERSITET	DK
13	THE SECRETARY OF STATE FOR ENVIRONMENT, FOOD AND RURAL AFFAIRS	UK
14	HERIOT-WATT UNIVERSITY	UK
16	STICHTING DELTARES	NL
17	NORSK INSTITUTT FOR VANNFORSKNING	NO
18	NEDERLANDSE ORGANISATIE VOOR TOEGEPAST NATUURWETENSCHAPPELIJK ONDERZOEK - TNO	NL
19	Vlaams Gewest	BE

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**Activity Code:** ENV.2009.2.1.5.1      **Funding Scheme:** CP      **Duration (Months):** 48  
**Title:** SOLUTIONS for ENVIRONMENTAL CONTRASTS in COASTAL AREAS

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**Proposed EC Grant:** 6.159.118 €      **Project homepage:** [www.projectsecoa.eu](http://www.projectsecoa.eu)

**Main project focus:** Integrated coastal zone management

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**Abstract:**

Urban settlements, following the economic crisis of the 70s, entered in a process of regional and urban restructuring to gain a new image at the international level. As a result of the renewed economic success new flows of permanent, semi-permanent, temporary and daily "human mobility" followed: (i) for consumption (leisure and tourism), (ii) for production (economic migration). The world competition among metropolitan areas highlighted the essential importance of natural and cultural resources. The proposal considers the effects of human mobility on urban settlement growth and restructuring in coastal areas where (i) environment is more fragile and space limited, (ii) every phenomenon is more concentrated and (iii) effects on natural and cultural environment are more acute. Problems are multiplied since the climate change affecting environmental parameters - as sea levels - augments risks of flooding, propagation of pollutants, dislocation of a great number of settlers. Controlling and reducing unwanted consequences is contributing to growing conflicts among stakeholders. An integrated ecosystem approach incorporating social, economic and natural disciplines is essential in understanding and dealing with the complex and dynamic problems facing the coastal city environments. The proposal intends to: (i) identify conflicts, (ii) analyze their quantitative and qualitative effects on the environment, (iii) create models to synthesize the complexity of the different social, economic and environmental systems, (iv) compare the priority of each typology through taxonomy. Outcomes include (i) elaboration of an analysis methodology, (ii) creating tools for appropriate policies, (iii) scenario building, (iv) dissemination-exploitation of results for users' needs. The project will analyse 8 metropolitan areas of global importance and 8 of local importance in European and Asian countries (Belgium, Portugal, Italy, Sweden, United Kingdom, Israel, India, and Vietnam)

**Partners:**

1	CONSORZIO SAPIENZA INNOVAZIONE	IT
2	UNIVERSITA DEGLI STUDI DI ROMA LA SAPIENZA	IT
3	VRIJE UNIVERSITEIT BRUSSEL	BE
4	Faculdade de letras da Universidade de Lisboa	PT
5	LONDON METROPOLITAN UNIVERSITY	UK
6	THE HEBREW UNIVERSITY OF JERUSALEM.	IL
7	GOETEBORGS UNIVERSITET	SE
8	University of Pune	IN
9	Institute of Marine Environments and Resources	VN

**Activity Code:** ENV.2009.2.2.1.1 **Funding Scheme:** CP **Duration (Months):** 42  
**Title:** Options for Delivering Ecosystem-Based Marine Management

**Proposed EC Grant:** 6.499.133 € **Project homepage:** <http://www.liv.ac.uk/odemm/>

**Main project focus:** Ecosystem approach to marine ecosystem management

#### Abstract:

The overall aim of the ODEMM project is to develop a set of fully-costed ecosystem management options that would deliver the objectives of the Marine Strategy Framework Directive, the Habitats Directive, the European Commission Blue Book and the Guidelines for the Integrated Approach to Maritime Policy. This will be achieved by: (i) providing a comprehensive knowledge base to support policy for the development of sustainable and integrated management of European marine ecosystems; (ii) developing Operational Objectives to achieve the High-Level Policy Objectives set by the MSFD and the HD, and with reference to the proposed Maritime Policy; (iii) identifying Management Options (individual management tools and combinations of tools) to meet the Operational Objectives; (iv) providing a risk assessment framework for the evaluation of Management Options and to assess the risk associated with the different options; (v) conducting a cost-benefit analysis of a range of Management Options using appropriate techniques; (vi) identifying stakeholder opinions on the creation of governance structures directed towards implementation of the ecosystem approach, and to elaborate different scenarios for changing governance structures and legislation to facilitate a gradual transition from the current fragmented management approach towards fully integrated ecosystem management; (vii) documenting the steps necessary for the transition from the current fragmented management scheme to a mature and integrated approach, and providing a toolkit that could be used to evaluate options for delivering ecosystem-based management; and (viii) communicating and consulting on the outcomes of the project effectively with policy makers and other relevant user groups.

#### Partners:

1	THE UNIVERSITY OF LIVERPOOL	UK
2	HELLENIC CENTRE FOR MARINE RESEARCH	EL
3	A.O. KOVALEVSKIY INSTITUTE OF BIOLOGY OF SOUTHERN SEAS	UA
4	AALBORG UNIVERSITET	DK
5	MIDDLE EAST TECHNICAL UNIVERSITY	TR
6	THE SCOTTISH AGRICULTURAL COLLEGE	UK
7	NATIONAL INSTITUTE FOR MARINE RESEARCH AND DEVELOPMENT	RO
8	STICHTING DIENST LANDBOUWKUNDIG ONDERZOEK	NL
9	ISRAEL OCEANOGRAPHIC AND LIMNOLOGICAL RESEARCH LIMITED	IL
10	Morski Instytut Rybacki w Gdyni	PL
11	EPITROPI EREUNON PANEPISTIMIOU THESSALIAS	EL
12	THE SECRETARY OF STATE FOR ENVIRONMENT, FOOD AND RURAL AFFAIRS	UK
13	Marine Law and Ocean Policy Research Services Ltd	IE
14	WAGENINGEN UNIVERSITEIT	NL
15	INSTITUTE OF OCEANOLOGY - BULGARIAN ACADEMY OF SCIENCES	BG
16	SUOMEN YMPARISTOKESKUS	FI
17	TEL AVIV UNIVERSITY	IL



**Activity Code:** ENV.2009.2.2.1.4 **Funding Scheme:** CP **Duration (Months):** 48

**Title:** People for Ecosystem Based Governance in Assessing Sustainable Development of Ocean and Coast

**Proposed EC Grant:** 6.999.005 € **Project homepage:** [www.pegasoproject.eu](http://www.pegasoproject.eu)

**Main project focus:** Integrated coastal zone management in the Mediterranean and Black seas

#### Abstract:

Many efforts have been deployed for developing Integrated Coastal Zone Management (ICZM) in the Mediterranean and the Black Sea. Both basins have, and continue to suffer severe environmental degradation. In many areas this has led to unsustainable trends which have impacted on economic activities and human well-being. An important progress has been made with the launch of the ICZM Protocol for the Mediterranean Sea in January 2008. The ICZM Protocol offers, for the first time in the Mediterranean, an opportunity to work in a new way, and a model that can be used as a basis for solving similar problems elsewhere, such as in the Black Sea. The aim of PEGASO is to build on existing capacities and develop common novel approaches to support integrated policies for the coastal, marine and maritime realms of the Mediterranean and Black Sea Basins in ways that are consistent with and relevant to the implementation of the ICZM Protocol for the Mediterranean. PEGASO will use the model of the existing ICZM Protocol for the Mediterranean and adjust it to the needs of the Black Sea through three innovative actions: - Constructing an ICZM governance platform as a bridge between scientist and end-user communities, going far beyond a conventional bridging. The building of a shared scientific and end users platform is at the heart of our proposal linked with new models of governance. -Refining and further developing efficient and easy to use tools for making sustainability assessments in the coastal zone (indicators, accounting methods and models, scenarios, socio-economic valuations, etc). They will be tested and validated in 9 sites (CASES) and by the ICZM Platform, using a multi-scale approach for integrated regional assessment. -Implementing a Spatial Data Infrastructure (SDI), following INSPIRE Directive, to organize local geonodes and standardize spatial data to support information sharing on an interactive visor, to make it available to the ICZM Platform, and to disseminate all results of the project to all interested parties and beyond. -Enhancing regional networks of scientists and stakeholders in ICPC countries, supported by capacity building, to implement the PEGASO tools and lessons learned, to assess the state and trends for coast and sea in both basins, identifying present and future main threats agreeing on responses to be done at different scales in an integrated approach, including transdisciplinary and transboundary long-term collaborations.

#### Partners:

1	UNIVERSITAT AUTONOMA DE BARCELONA	ES
2	UNIVERSIDAD PABLO DE OLAVIDE	ES
3	PLAN BLEU POUR L'ENVIRONNEMENT ET LE DEVELOPPEMENT EN MEDITERRANEE	FR
4	INSTITUT FRANCAIS DE RECHERCHE POUR L'EXPLOITATION DE LA MER	FR
5	ACRI ETUDES ET CONSEIL	MA
7	Priority Actions Programme Regional Activity Centre	HR
8	UNION INTERNACIONAL PARA LA CONSERVACION DE LA NATURALEZA	ES
9	THE UNIVERSITY OF NOTTINGHAM	UK
10	VLAAMS INSTITUUT VOOR DE ZEE VZW	BE
11	UNIVERSITA CA' FOSCARI DI VENEZIA	IT
12	COMMISSION OF THE EUROPEAN COMMUNITIES - DIRECTORATE GENERAL JOINT RESEARCH CENTRE - JRC	BE
13	UNIVERSITE DE GENEVE	CH
14	HELLENIC CENTRE FOR MARINE RESEARCH	EL
15	AKDENIZ KIYI VAKFI	TR
16	INSTITUTUL NATIONAL DE CERCETARE DEZVOLTARE DELTA DUNARII	RO
17	University Mohammed V-Agdal	MA
18	Association de Réflexion, d'Echanges et d'Actions pour l'Environnement et le Développement	DZ
19	National Institute of Oceanography and Fisheries	EG
20	UNIVERSITY OF BALAMAND	LB
21	MARINE HYDROPHYSICAL INSTITUTE - UKRAINIAN NATIONAL ACADEMY OF SCIENCES	UA
22	Institut National des Sciences et Technologies de la Mer	TN
23	FONDATION TOUR DU VALAT	FR
24	National Authority for Remote Sensing and Space Sciences	EG
25	PERMANENT SECRETARIAT OF THE COMMISSION ON THE PROTECTION OF THE BLACKSEA AGAINST POLLUTION	TR

Important notice: Provisional data based on evaluation results and subject to modification (see Disclaimer)

**Activity Code:** ENV.2009.2.2.1.5 **Funding Scheme:** CP **Duration (Months):** 53

**Title:** Future of Reefs in a Changing Environment (FORCE): An ecosystem approach to managing Caribbean coral reefs in the face of climate change

**Proposed EC Grant:** 6.474.632 € **Project homepage:** [www.force-project.eu](http://www.force-project.eu)

**Main project focus:** Corals reefs

#### Abstract:

The Future of Reefs in a Changing Environment (FORCE) Project partners a multi-disciplinary team of researchers from Europe and the Caribbean to enhance the scientific basis for managing coral reefs in an era of rapid climate change and unprecedented human pressure on coastal resources. The overall aim is to provide coral reef managers with a toolbox of sustainable management practices that minimise the loss of coral reef health and biodiversity. An ecosystem approach is taken that explicitly links the health of the ecosystem with the livelihoods of dependent communities, and identifies the governance structures needed to implement sustainable development. Project outcomes are reached in four steps. First, a series of experimental, observational and modelling studies are carried out to understand both the ultimate and proximate drivers of reef health and therefore identify the chief causes of reef degradation. Second, the project assembles a toolbox of management measures and extends their scope where new research can significantly improve their efficacy. Examples include the first 'coral-friendly' fisheries policies that balance herbivore extraction against the needs of the ecosystem, the incorporation of coral bleaching into marine reserve design, and creation of livelihood enhancement and diversification strategies to reduce fisheries capacity. Third, focus groups and ecological models are used to determine the efficacy of management tools and the governance constraints to their implementation. This step impacts practical reef management by identifying the tools most suited to solving a particular management problem but also benefits high-level policy-makers by highlighting the governance reform needed to implement such tools effectively. Lastly, the exploitation and dissemination of results benefits from continual engagement with practitioners. The project will play an important and measurable role in helping communities adapt to climate change in the Caribbean.

#### Partners:

1	THE UNIVERSITY OF EXETER	UK
2	Integrated Marine Management Ltd.	UK
3	UNIVERSITY OF NEWCASTLE UPON TYNE	UK
4	UNIVERSITEIT VAN AMSTERDAM	NL
5	STICHTING KONINKLIJK NEDERLANDS INSTITUUT VOOR ZEEONDERZOEK (NIOZ)	NL
6	Wageningen IMARES	NL
7	WAGENINGEN UNIVERSITEIT	NL
8	Stichting Koninklijke Rotterdamse Diergaarde	NL
9	Carmabi	AN
10	VEREIN ZUR FOERDERUNG DER WISSENSCHAFTLICHEN FORSCHUNG IN DER FREIEN HANSESTADT BREMEN E.V.	DE
11	BAR ILAN UNIVERSITY	IL
12	University of Costa Rica	CR
14	THE UNIVERSITY OF THE WEST INDIES U WI*	JM
15	UNIVERSIDAD NACIONAL AUTONOMA DE MEXICO	MX
16	EL COLEGIO DE LA FRONTERA SUR	MX
17	Centro de Ecología Marina de Utila	HN
20	THE UNIVERSITY OF QUEENSLAND	AU
21	ALTERRA B.V.	NL

**Activity Code:** ENV.2009.2.2.1.6      **Funding Scheme:** CSA      **Duration (Months):** 30  
**Title:** The Deep Sea & Sub-Sea-floor Frontier

**Proposed EC Grant:** 1.000.000 €      **Project homepage:** [www.deep-sea-frontier.eu](http://www.deep-sea-frontier.eu)

**Main project focus:** Deep sea & sub-sea floor research

#### Abstract:

The Deep Sea and Sub-Sea-floor Frontier project (DS<sup>3</sup>F) provides a pathway towards sustainable management of oceanic resources on a European scale. It will develop subseafloor sampling strategies for enhanced understanding of deep-sea and subseafloor processes by connecting marine research in life and geosciences, climate and environmental change, with socio-economic issues and policy building. Subseafloor drilling and sampling provide two key aspects for understanding how deep-sea ecosystems presently function and how they may respond to global change: (a) an inventory of current subsurface processes and biosphere, and their links to surface ecosystems, utilising seafloor observation and baseline studies and (b) a high resolution archive of past variations in environmental conditions and biodiversity. For both aspects, an international effort is needed to maximise progress by sharing knowledge, ideas and technologies, including mission-specific platforms to increase the efficiency, coverage and effectiveness of subseafloor sampling and exploration. The deep biosphere has been discovered only within the past two decades and comprises a major new frontier for biological exploration. We lack fundamental knowledge about biomass distribution, diversity and physiological activity of deep biosphere communities at life's extremes, and their impact on seafloor and deep sea ecosystems. Similarly, the geodynamic processes fuelling biological activity, and how these processes impinge upon the emission of geofuels, hydrocarbon formation and other resources including seafloor ecosystems, need to be understood. This Coordination & Support Action will develop the most efficient use of subseafloor sampling techniques and existing marine infrastructure to study the geosystem, its effects on the deep biosphere and marine ecosystems, and provide a comprehensive "white paper" and an open access web portal for a sustainable use of the oceans and a Maritime Policy.

#### Partners:

1	UNIVERSITAET BREMEN	DE
2	AARHUS UNIVERSITET	DK
3	INSTITUT FRANCAIS DE RECHERCHE POUR L'EXPLOITATION DE LA MER	FR
4	ISTITUTO NAZIONALE DI GEOFISICA E VULCANOLOGIA	IT
5	INSTITUT DE PHYSIQUE DU GLOBE DE PARIS	FR
6	MAX PLANCK GESELLSCHAFT ZUR FOERDERUNG DER WISSENSCHAFTEN E.V.	DE
8	UNIVERSITAT DE BARCELONA	ES
9	UNIVERSITETET I TROMSOE	NO
10	UNIVERSITY OF SOUTHAMPTON	UK

**Activity Code:** ENV.2010.2.2.1-1 **Funding Scheme:** CP **Duration (Months):** 48

**Title:** European Union Basin-scale Analysis, Synthesis and Integration (EURO-BASIN)

**Proposed EC Grant:** 6.996.407 € **Project homepage:** [not yet available](#)

**Main project focus:** Management of marine ecosystems

#### Abstract:

EURO-BASIN is designed to advance our understanding on the variability, potential impacts, and feedbacks of global change and anthropogenic forcing on the structure, function and dynamics of the North Atlantic and associated shelf sea ecosystems as well as the key species influencing carbon sequestering and ecosystem functioning. The ultimate goal of the program is to further our capacity to manage these systems in a sustainable manner following the ecosystem approach. Given the scope and the international significance, EURO-BASIN is part of a multidisciplinary international effort linked with similar activities in the US and Canada. EURO-BASIN focuses on a number of key groups characterizing food web types, e.g. diatoms versus microbial loop players; key species copepods of the genus *Calanus*; pelagic fish, herring (*Clupea harengus*), mackerel (*Scomber scombrus*), blue whiting (*Micromesistius poutassou*) which represent some of the largest fish stocks on the planet; piscivorous pelagic bluefin tuna (*Thunnus thynnus*) and albacore (*Thunnus alalunga*) all of which serve to structure the ecosystem and thereby influence the flux of carbon from the euphotic zone via the biological carbon pump. In order to establish relationships between these key players, the project identifies and accesses relevant international databases and develops methods to integrate long term observations. These data will be used to perform retrospective analyses on ecosystem and key species/group dynamics, which are augmented by new data from laboratory experiments, mesocosm studies and field programs. These activities serve to advance modelling and predictive capacities based on an ensemble approach where modelling approaches such as size spectrum; mass balance; coupled NPZD; fisheries; and "end to end" models and as well as ecosystem indicators are combined to develop understanding of the past, present and future dynamics of North Atlantic and shelf sea ecosystems and their living marine resources.

#### Partners:

1	UNIVERSITAET HAMBURG	DE
2	UNIVERSITAET BREMEN	DE
3	DANMARKS TEKNISKE UNIVERSITET	DK
4	FUNDACION AZTI/AZTI FUNDAZIOA	ES
5	NATURAL ENVIRONMENT RESEARCH COUNCIL	UK
6	HAFRANNSOKNASTOFNUNIN	IS
7	Morski Instytut Rybacki w Gdyni	PL
8	PLYMOUTH MARINE LABORATORY	UK
9	UNIVERSITY OF EAST ANGLIA	UK
10	AARHUS UNIVERSITET	DK
11	HAVFORSKNINGSINSTITUTTET	NO
12	INSTITUT FRANCAIS DE RECHERCHE POUR L'EXPLOITATION DE LA MER	FR
13	SIR ALISTER HARDY FOUNDATION FOR OCEAN SCIENCE	UK
14	INSTITUT DE RECHERCHE POUR LE DEVELOPPEMENT	FR
15	CENTRE NATIONAL DE LA RECHERCHE SCIENTIFIQUE	FR
16	UNIVERSITY OF STRATHCLYDE	UK
17	THE SECRETARY OF STATE FOR ENVIRONMENT, FOOD AND RURAL AFFAIRS	UK
18	Høgskolen i Bodø	NO
19	UNIFOB AS	NO
20	INSTITUTO ESPANOL DE OCEANOGRAFIA	ES
21	COLLECTE LOCALISATION SATELLITES SA	FR
22	SWANSEA UNIVERSITY	UK
23	MIDDLE EAST TECHNICAL UNIVERSITY	TR

**Activity Code:** ENV.2010.2.2.1-2 **Funding Scheme:** CP **Duration (Months):** 36

**Title:** Development of global plankton data base and model system for eco-climate early warning

**Proposed EC Grant:** 3.476.469 € **Project homepage:** [not yet available](#)

**Main project focus:** Research on plankton

#### Abstract:

GreenSeas shall advance the quantitative knowledge of how planktonic marine ecosystems, including phytoplankton, bacterioplankton and zooplankton, will respond to environmental and climate changes. To achieve this GreenSeas will employ a combination of observation data, numerical simulations and a cross-disciplinary synthesis to develop a high quality, harmonized and standardized plankton and plankton ecology long time-series, data inventory and information service. The focus will be on capturing the latitudinal gradients, biogeographical distributions and provinces in the planktonic ecosystem from the Arctic, through the Atlantic and into the Southern Ocean. It will build on historical data-sets, and ongoing multidisciplinary ocean planktonic ecosystem monitoring programs, enhanced where possible with an emphasis on the Southern Ocean. GreenSeas will also enhance international cooperative links with other plankton monitoring and analysis surveys around the globe. The heart of the GreenSeas concept is establishing a 'core' service following the open and free data access policy implemented in the Global Monitoring for Environment and Security (GMES) programme. Using state-of-the-art web-based data delivery systems the 'core' service will make available both new and historical plankton data and information products along with error-quantified numerical simulations to a range of users. Connecting with 'downstream' services GreenSeas will moreover offer ecosystem assessment and indicator reports tailored for decision makers, stakeholders and other user groups contributing in the policy making process. Finally, knowledge transfer will be guaranteed throughout the project lifetime, while the legacy of the GreenSeas database web-server will be maintained for at least 5 years beyond the project lifetime.

#### Partners:

1	STIFTELSEN NANSEN SENTER FOR FJERNMAALING	NO
2	PLYMOUTH MARINE LABORATORY	UK
3	UNIFOB AS	NO
4	NATURAL ENVIRONMENT RESEARCH COUNCIL	UK
5	Murmansk Marine Biological Institute	RU
6	COUNCIL FOR SCIENTIFIC AND INDUSTRIAL RESEARCH	ZA
7	UNIVERSITY OF CAPE TOWN	ZA
8	CENTRO EURO-MEDITERRANEO PER I CAMBIAMENTI CLIMATICI SCARL	IT
9	Universidade Federal do Rio Grande	BR

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**Activity Code:** ENV.2009.5.1.0.2      **Funding Scheme:** CSA      **Duration (Months):** 24

**Title:** European Marine Research Knowledge Transfer and Uptake of Results

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**Proposed EC Grant:** 782.000 €      **Project homepage:** [www.marinett.eu](http://www.marinett.eu)

**Main project focus:** Knowledge/technology transfer

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**Abstract:**

MarineTT is premised on the concept that knowledge is a major source of competitive advantage in business. Much potentially valuable knowledge, locked into inaccessible or non-user-friendly contexts, is unused because key stakeholders are not aware of its existence. MarineTT is concerned with marine environment research, an approach allowing coverage of other themes (climate change, biodiversity, earth observation and urban development) while also allowing important sub-topics (such as fisheries and aquaculture) to be included, given their relevance to the key area of the impacts of economic growth leading to environmental degradation, and the current ecosystem management approach supported by the EC. MarineTT will use the existing EurOcean info-base of European marine research funded projects as its initial basis, extending its functionality by introducing critical missing fields, making it a more efficient tool, focusing on knowledge outputs rather than a simple listing of research projects. The profiles will be updated to include new fields, such as: stated aims and objectives vs. actual outputs, research performers, research outcomes, research methodologies (effective and/or ineffective), products, and other relevant information. This knowledge can then be discharged through encouraging and accelerating commercial application of research results, through facilitating the transfer of knowledge for policy and senior decision makers, and through the promotion of research results to the public at large. MarineTT will make a real contribution to the call for improved access to EU research results for industry, multipliers, the civil society, and policy-makers. The project is divided into three phases: (1) Collect and Understand, refining and improving databases and info-bases; (2) Analyse (cost & benefit) and Consult, with key stakeholders and experts; and (3) Transfer and Connect; effective knowledge transfer

**Partners:**

- |   |                    |    |
|---|--------------------|----|
| 1 | AquaTT UETP Ltd    | IE |
| 2 | Stichting EurOcean | PT |

**Activity Code:** ENV.2009.2.2.1.3 **Funding Scheme:** CSA **Duration (Months):** 24

**Title:** Towards an Integrated Marine and Maritime Science Community

**Proposed EC Grant:** 998.455 € **Project homepage:** [www.marinemaritimescienceforum.eu](http://www.marinemaritimescienceforum.eu)

**Main project focus:** Integrating EU marine research

**Abstract:**

The 'Aberdeen plus interest group' joined forces with the 'Venice Platform group' to take further steps in integrating the marine, maritime and coastal research sectors in Europe. The goal is to establish a sustainable and long-lasting partnership forum ("European Marine and Maritime Forum"), based on shared interests and shared leadership, and to test it on regional seas and pan-European basis. The process will contribute to developing interactions between partners (the research community, industry, regional authorities, civil society and other stakeholders) starting from regional scales to broader issues shared with EU-neighbouring countries. This, being in line with the European Strategy for Marine and Maritime Research, will underpin the future integrated EU Maritime Policy. The action will be supported by the already established key structures and will constitute a Forum which will be an operationally open structure.

**Partners:**

1	International Council for the Exploration of the Sea	DK
2	Coastal & Marine Union	NL
3	European Council for Maritime Applied R&D Association	BE
4	FONDATION EUROPEENNE DE LA SCIENCE	FR
5	Commission Internationale pour l'Exploration Scientifique de la mer Méditerranée (CIESM)	MC
6	European Aquaculture Technology and Innovation Platform	BE
7	European Fisheries and Aquaculture Organisation	FR
8	HELLENIC CENTRE FOR MARINE RESEARCH	EL
9	KONINKLIJKE NEDERLANDSE AKADEMIE VAN WETENSCHAPPEN - KNAW	NL
10	Community of European Shipyards Associations asbl	BE



**Activity Code:** ENV.2009.2.2.1.2 **Funding Scheme:** CSA **Duration (Months):** 48

**Title:** Towards integrated European marine research strategy and programmes

**Proposed EC Grant:** 1.999.928 € **Project homepage:** [not yet available](#)

**Main project focus:** Integrating EU marine research

**Abstract:**

This proposal is intended to take into account the ongoing and previous integrating initiatives (AMPERA, marinERA, Marifish,...) so as to constitute a stable and durable structure for coordination and integration of national and regional marine and maritime research programmes with the major goal of providing a clear reply to the need for developing and implementing common research strategies and programmes related to the European sea basins. To this end, SEAS ERA will bring together, through several mechanisms, the four european sea basins working within two different levels: regional and pan european; this work structure will enable to harmonise common priorities and needs in marine and maritime research while respecting diversities between regions.

**Partners:**

1	MINISTERIO DE CIENCIA E INNOVACION	ES
2	SERVICE PUBLIC FEDERAL DE PROGRAMMATION POLITIQUE SCIENTIFIQUE	BE
3	MINISTRY OF EDUCATION, YOUTH AND SCIENCE	BG
4	AGENCE NATIONALE DE LA RECHERCHE	FR
5	MINISTRY OF FOOD, AGRICULTURE AND FISHERIES, DANISH FOOD INDUSTRY AGENCY	DK
6	FORSCHUNGSZENTRUM JUELICH GMBH	DE
7	GENIKI GRAMMATIA EREVNAS KAI TECHNOLOGIAS, YPOURGIO PAIDIAS, DIA VIOU MATHISIS & THRSISKEVMATON	EL
8	THE ICELANDIC CENTRE FOR RESEARCH	IS
9	MARINE INSTITUTE	IE
10	MINISTERO DELL'ISTRUZIONE, DELL'UNIVERSITA' E DELLA RICERCA	IT
11	NORGES FORSKNINGSRAD	NO
12	MALTA COUNCIL FOR SCIENCE AND TECHNOLOGY	MT
13	FUNDACAO PARA A CIENCIA E A TECNOLOGIA	PT
14	NEDERLANDSE ORGANISATIE VOOR WETENSCHAPPELIJK ONDERZOEK	NL
15	TURKIYE BILIMSEL VE TEKNOLOJIK ARASTIRMA KURUMU	TR
16	NATURAL ENVIRONMENT RESEARCH COUNCIL	UK
17	THE SECRETARY OF STATE FOR ENVIRONMENT, FOOD AND RURAL AFFAIRS	UK
18	FONDATION EUROPEENNE DE LA SCIENCE	FR
19	CENTRUL NATIONAL DE MANAGEMENT PROGRAME	RO
20	KYIV STATE CENTER FOR SCIENTIFIC TECHNICAL AND ECONOMIC INFORMATION	UA
21	GEORGIA NATIONAL SCIENCE FOUNDATION	GE
22	INSTITUT FRANCAIS DE RECHERCHE POUR L'EXPLOITATION DE LA MER	FR

**Activity Code:** ENV.2010.2.2.1-3 **Funding Scheme:** CSA **Duration (Months):** 24

**Title:** Integration of European marine research networks of excellence - Euromarine

**Proposed EC Grant:** 999.916 € **Project homepage:** [not yet available](#)

**Main project focus:** Integrating EU marine research

**Abstract:**

EuroMarine is a coordination action that seeks to develop and implement an agreed framework for the long-lasting and durable co-operation between research institutions that were partners in FP6 marine Networks of Excellence in order to achieve further integration of marine research in Europe. Particular areas for cooperation will be: research programming, joint development and use of data bases, training and mobility of researchers, joint programming and use of research infrastructures. The objective is to provide an agreed frame for strong institutional commitment to this durable collaboration. The ultimate aim will be the sustainable integration of marine research and a significant contribution to the structure of the ERA.

**Partners:**

1	GOETEBORGS UNIVERSITET	SE
2	CENTRO DE CIENCIAS DO MAR DO ALGARVE	PT
3	CLIMAR - Centro Interdisciplinar de Investigação Marinha e Ambiental	PT
4	CENTRE NATIONAL DE LA RECHERCHE SCIENTIFIQUE	FR
5	DANMARKS TEKNISKE UNIVERSITET	DK
6	INSTITUT FRANCAIS DE RECHERCHE POUR L'EXPLOITATION DE LA MER	FR
7	INSTITUT DE RECHERCHE POUR LE DEVELOPPEMENT	FR
8	STICHTING KONINKLIJK NEDERLANDS INSTITUUT VOOR ZEEONDERZOEK (NIOZ)	NL
9	MARINE BIOLOGICAL ASSOCIATION OF THE UNITED KINGDOM	UK
10	STAZIONE ZOOLOGICA ANTON DOHRN	IT
11	MAX PLANCK GESELLSCHAFT ZUR FOERDERUNG DER WISSENSCHAFTEN E.V.	DE
12	RIJKSUNIVERSITEIT GRONINGEN	NL
13	UNIVERSITEIT GENT	BE
14	VLAAMS INSTITUUT VOOR DE ZEE VZW	BE
15	UNIVERSITAET BREMEN	DE
16	Dr. Johanna B. Wesnigk	DE
17	KONINKLIJKE NEDERLANDSE AKADEMIE VAN WETENSCHAPPEN - KNAW	NL

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**Activity Code:** ENV.2.2.      **Funding Scheme:** CSA      **Duration (Months):** 24

**Title:** Joint Baltic Sea Research and Development programme (BONUS) undertaken by several Member States with the participation of the Union

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**Proposed EC Grant:** 1.996.714 €      **Project homepage:** [www.bonusportal.org](http://www.bonusportal.org)

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**Main project focus:**

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**Abstract:**

The Joint Baltic Sea Research and Development Programme, BONUS, was adopted by the European Council and Parliament in July, 2010. It will be implemented under Article 185 (formerly 169) of the EC Treaty, which provides for Community participation in research and development programmes undertaken by several Member States. BONUS brings together all 8 Baltic Sea Member States in a joint effort to enhance the Region's research capacity to underpin the development and implementation of 'fit-for-purpose' regulations, policies and management practices that will enable the major environmental and key societal challenges currently faced to be met effectively. The initiative aims to improve the efficiency and effectiveness of the Baltic Sea Region's fragmented environmental research programming by integrating research activities into a durable, cooperative, interdisciplinary well-integrated and focused multi-national programme. Based on extensive and on-going stakeholder consultations, BONUS will provide concrete scientific outputs facilitating the implementation of ecosystem-based management of environmental issues in the Baltic Sea area and contribute to the establishment and structuring of the ERA in the Baltic.

BONUS will be implemented in two phases during 2010-2016. During the initial, 18-month, 'Strategic Phase' (2010-2011), preparations for the implementation of the Joint Research and Development Programme will take place. These will include broad stakeholder consultations through the setting-up of stakeholder consultation platforms, the development of a Strategic Research Agenda and the preparation of the programme's implementation modalities. During the subsequent 5-year 'Implementation Phase' (2012-2016), joint calls for proposals will be published, with a view to funding projects which address the BONUS objectives.

BONUS will be funded jointly, on a 50/50 basis by the EU and the Participating Member States up to a total expected budget of 100M€. The Joint Baltic Sea Research Programme is fully aligned with the objectives of the European Strategy for Marine and Maritime Research and is also central to the success of the EU Strategy for the Baltic Sea Region.

**Partners:**

1 BALTIC ORGANISATIONS NETWORK FOR FUNDING SCIENCE

FI

**Activity Code:** ENV.2008.3.1.6.1. **Funding Scheme:** CP **Duration (Months):** 36

**Title:** PRODUCTIVITY TOOLS: Automated Tools to Measure Primary Productivity in European Seas. A New Autonomous Monitoring Tool to Measure the Primary Production of Major European Seas

**Proposed EC Grant:** 2.985.343 € **Project homepage:** [www.protocol-project.eu](http://www.protocol-project.eu)

**Main project focus:** Develop and adapt technology to measure primary production of phytoplankton with automated optical techniques

#### Abstract:

PROTOOL stands for PROductivity TOOLS: Automated Tools to Measure Primary Productivity in European Seas. The project will develop and adapt sensor technologies to measure primary production of phytoplankton with automated optical techniques, so that they can be placed on ships of opportunity (SOOP, ferries, container ships). The complete PROTOOL Measuring Device will consist of (1) a fluorometer measuring the rate of photosynthesis (using the variable fluorescence approach), (2) an algal absorption meter and (3) a hyperspectral reflectance unit. It will measure key water quality parameters like chlorophyll a, suspended matter concentrations and the light attenuation coefficient. The design will be modular so that each unit can also be used separately. The different versions of the sensors and protocol modules will be tested in the Baltic Sea, the North Sea, the English-Channel and the Gulf of Biscay, as well as in a number of Dutch estuaries. In the first 3 cases, the PROTOOL equipments will be placed next to a ferrybox on ships of opportunity. These field tests will provide the conversion factors required to calibrate the PROTOOL fluorometer. These campaigns will also produce maps of primary production with high temporal and spatial resolutions. The PROTOOL Measuring Device is unique because it is the first sensor technology that can measure autonomously biological process RATES and not only biological quantities (like chlorophyll concentration). It will provide detailed information on primary productivity which is a fundamental parameter in the carrying capacity of any ecosystem. With its technological development, PROTOOL will contribute to a much better assessment of changing marine ecosystems. PROTOOL partners will further promote the inclusion of primary production within the list of important biological properties to be considered for ecological status assessment in the future in the context of the Water Framework (WFD) and the Marine Strategy Framework Directives.

#### Partners:

1	KONINKLIJKE NEDERLANDSE AKADEMIE VAN WETENSCHAPPEN - KNAW	NL
2	SUOMEN YMPARISTOKESKUS	FI
3	GKSS - FORSCHUNGSZENTRUM GEESTHACHT GMBH	DE
4	UNIVERSITY OF ESSEX	UK
5	MIKROBIOLOGICKY USTAV - AVCR, V.V.I.	CZ
6	THE SECRETARY OF STATE FOR ENVIRONMENT, FOOD AND RURAL AFFAIRS	UK
7	NATURAL ENVIRONMENT RESEARCH COUNCIL	UK
8	PHOTON SYSTEMS INSTRUMENTS SPOL SRO	CZ
9	TRIOS MESS- UND DATENTECHNIK GMBH	DE

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**Activity Code:** ENV.2008.3.2.1.2.      **Funding Scheme:** CSA      **Duration (Months):** 24

**Title:** Strategies for the protection of shipwrecks in the Baltic Sea against forthcoming attack by wood degrading marine borers. A synthesis and information project based on the effects of climatic changes.

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**Proposed EC Grant:** 754.812 €      **Project homepage:** [www.wreckprotect.eu](http://www.wreckprotect.eu)

**Main project focus:** Protection of shipwrecks in the Baltic Sea

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**Abstract:**

Today the Baltic sea is a brackish marine environment, enclosing a unique well preserved historical collection of wooden shipwrecks and settlements. These objects and constructions are protected from aggressive marine borer due to the low salinity in the waters, and therefore it is one of the few localities in the world where historical shipwrecks are found so intact and available for historical research. There are however strong indications, showed by the EU- MOSS project, that the marine borer *Teredo* spp is spreading into this area. If we are not able to protect the cultural heritage, these objects will be lost within a relatively short time due to the aggressiveness of the marine borers. A strategy to handle this alarming scenario, is to provide the museums and conservators responsible for long term preservation of cultural heritage, with tools for predicting the spread of marine borers, and efficient methods for protection of the wreck, when the degradation is established. The WreckProtect project will therefore develop two guidelines synthesised on currently available information: 1. The prediction of marine borer attack in marine waters 2. The protection of wrecks in situ These guidelines will be applicable to other European marine waters outside the Baltic. The WreckProtect project is consequently a cross-disciplinary coordination action involving partners with expertise within geographical information systems, marine archaeology, marine biology, wood microbiology and conservation. These experts will through meetings and networking exchange knowledge and synthesise it into practical tools and methods in the form of guidelines that will be disseminated in a joint action for the European managers of underwater cultural heritage. A seminar, workshop and training course on practical in situ preservation of shipwreck will be organised during the project, and the guidelines will be published in international scientific journals and a monograph.

**Partners:**

- |   |   |    |
|---|---|----|
| 1 | SP SVERIGES TEKNISKA FORSKNINGSPINSTITUT AB*    | SE |
| 2 | NATIONALMUSEET                                  | DK |
| 3 | MINISTERIE VAN ONDERWIJS, CULTUUR EN WETENSCHAP | NL |
| 4 | The Geological Survey of Denmark and Greenland  | DK |
| 5 | GOETEBORGS UNIVERSITET                          | SE |
| 6 | VIKINGESKIBSMUSEET I ROSKILDE                   | DK |

**Activity Code:** ENV.2007.3.3.1.1. **Funding Scheme:** CP **Duration (Months):** 45  
**Title:** MICROARRAYS FOR THE DETECTION OF TOXIC ALGAE

**Proposed EC Grant:** 2.234.850 € **Project homepage:** [www.midal.com](http://www.midal.com)

**Main project focus:** Development of rRNA probes to detect toxic microalgae

**Abstract:**

Microalgae in marine and brackish waters of Europe regularly cause «harmful effects», considered from the human perspective, in that they threaten public health and cause economic damage to fisheries and tourism. Cyanobacteria cause similar problems in freshwaters. These episodes encompass a broad range of phenomena collectively referred to as «harmful algal blooms» (HABs). They include discoloration of waters by mass occurrences of microalgae (true algal blooms that may or may not be «harmful») to toxin-producing species that may be harmful even in low cell concentrations. A broad classification of HAB distinguishes three groups of toxic organisms. For adequate management of these phenomena, monitoring of microalgae is required. However, the effectiveness of monitoring programmes is limited by the fact that it is time consuming and morphology as determined by light microscopy may be insufficient to give definitive species and toxin attribution. Once cell numbers reach a threshold level, then shellfish are selected to toxin analysis by the mouse bioassay. The mouse bioassay is continued on a daily basis until no more toxin is detected. Molecular and biochemical methods are now available that offer rapid means of both species and toxin detection. In this project we will target rapid species identification using rRNA genes as the target. We include antibodies to specific toxins because even when cell numbers are very low, the toxins can be present and can be accumulated in the shellfish. Microarrays are the state of the art technology in molecular biology for the processing of bulk samples for detection of target RNA/DNA sequences.. The purpose of MIDTAL is to support the common fisheries policy to aid the national monitoring agencies by providing new rapid tools for the identification of toxic algae and their toxins so that they can comply with ECC directive 91/1491/CEE that can be converted to cell numbers and reduce the need for the mouse bioassay.

**Partners:**

1	MARINE BIOLOGICAL ASSOCIATION OF THE UNITED KINGDOM	UK
2	STAZIONE ZOOLOGICA ANTON DOHRN	IT
3	LINNEUNIVERSITETET	SE
4	INSTITUTO ESPANOL DE OCEANOGRAFIA	ES
5	NATIONAL UNIVERSITY OF IRELAND, GALWAY	IE
6	UNIVERSITETET I OSLO	NO
7	THE UNIVERSITY OF WESTMINSTER	UK
8	DHI INSTITUT FOR VAND OG MILJO FORENING	DK
9	INSTITUTO TECNOLXICO PARA O CONTROL DOMEDIO MARINO DE GALICIA - INTECMAR	ES
10	THE UNIVERSITY OF RHODE ISLAND	US
11	QUEEN'S UNIVERSITY BELFAST	UK

**Activity Code:** ENV.2009.3.1.6.1 **Funding Scheme:** CP **Duration (Months):** 48

**Title:** Innovative coastal technologies for safer European coasts in a changing climate

**Proposed EC Grant:** 6.530.000 € **Project homepage:** [www.theseusproject.eu](http://www.theseusproject.eu)

**Main project focus:** Coastal zone protection

#### Abstract:

Coastal areas are vital economic hubs in terms of settlement, industry, agriculture, trade and tourism to mention some key sectors. There are already many coastal problems including erosion, flood risk and long-term habitat deterioration. As economies continue to develop the asset base at risk will grow, while accelerating climate change will increase the likelihood of damaging extreme events, as well as accelerate habitat decline. Existing coastal management and defence approaches are not well tuned to these challenges as they assume a static situation. THESEUS will develop a systematic approach to delivering both a low-risk coast for human use and healthy habitats for evolving coastal zones subject to multiple change factors. The innovative combined mitigation and adaptation technologies to be considered will include ecologically-based mitigation measures (such as restoration and/or creation of habitats), hydro-morphodynamic techniques (such as wave energy converters, sediment reservoirs, multi-purpose structures, overtop resistant dikes), actions to reduce the impact on society and economy (such as promotion of risk awareness or spatial planning) and GIS-based software to support defence planning. To integrate the best of these technical measures in a strategic policy context we will develop overarching THESEUS guidelines which will consider the environmental, social and economic issues raised in any coastal area. It is in this spirit that THESEUS will advance European and international experience in applying innovative technologies to reducing coastal risks. THESEUS activities will be carried out within a multidisciplinary framework using 8 study sites across Europe, with specific attention to the most vulnerable coastal environments such as deltas, estuaries and wetlands, where many large cities and industrial areas are located.

#### Partners:

1	ALMA MATER STUDIORUM-UNIVERSITA DI BOLOGNA	IT
2	UNIVERSIDAD DE CANTABRIA	ES
3	UNIVERSITY OF PLYMOUTH	UK
4	AALBORG UNIVERSITET	DK
5	Infram International BV	NL
6	GKSS - FORSCHUNGSZENTRUM GEESTHACHT GMBH	DE
7	UNIVERSITY OF SOUTHAMPTON	UK
8	UNIVERSITE DE VERSAILLES SAINT-QUENTIN-EN-YVELINES.	FR
9	CENTRE D'ETUDES TECHNIQUES MARITIMES ET FLUVIALES	FR
10	MIDDLESEX UNIVERSITY HIGHER EDUCATION CORPORATION	UK
11	INSTYTUT METEOROLOGII I GOSPODARKI WODNEJ	PL
12	INSTITUTE OF OCEANOLOGY - BULGARIAN ACADEMY OF SCIENCES	BG
13	ATHENS UNIVERSITY OF ECONOMICS AND BUSINESS - RESEARCH CENTER	EL
14	KONINKLIJKE NEDERLANDSE AKADEMIE VAN WETENSCHAPPEN - KNAW	NL
15	CONSORZIO PER LA GESTIONE DEL CENTRO DI COORDINAMENTO DELLE ATTIVITA DI RICERCA INERENTI IL SISTEMA LAGUNARE DI VENEZIA	IT
16	INSTYTUT BUDOWNICTA WODNEGO POLSKIEJ AKADEMII NAUK	PL
17	BANGOR UNIVERSITY	UK
18	BUREAU DE RECHERCHES GEOLOGIQUES ET MINIERES	FR
19	HAMBURG PORT AUTHORITY	DE
20	Entente interdepartementale pour la demoustication du littoral méditerranéen	FR
21	LATVIJAS UNIVERSITATE	LV
22	Istituto Superiore per la Ricerca e la Protezione Ambientale	IT
23	VLAAMS INSTITUUT VOOR DE ZEE VZW	BE
24	ARISTOTELIO PANEPISTIMIO THESSALONIKIS	EL
25	KATHOLIEKE UNIVERSITEIT LEUVEN	BE
26	MARINE HYDROPHYSICAL INSTITUTE - UKRAINIAN NATIONAL ACADEMY OF SCIENCES	UA
27	P.P. SHIRSHOV INSTITUTE OF OCEANOLOGY OF RUSSIAN ACADEMY OF SCIENCES	RU

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28	University of Delaware	US
29	UNIVERSIDAD NACIONAL AUTONOMA DE MEXICO	MX
30	EAST CHINA NORMAL UNIVERSITY ECNU	CN
31	NATIONAL CHENG KUNG UNIVERSITY	TW

**Activity Code:** ENV.2007.4.1.1.1. **Funding Scheme:** CSA **Duration (Months):** 36

**Title:** Coordination Action Carbon Observation System

**Proposed EC Grant:** 1.747.683 € **Project homepage:** [www.cocos-carbon.org](http://www.cocos-carbon.org)

**Main project focus:** Monitoring of the carbon cycle at global level

#### Abstract:

COCOS will assess the status of harmonization of key carbon cycle variables with international partners. It will improve the interoperability of data sets that are used in global scale carbon cycle studies through joint activities between ecosystem, atmospheric and ocean bottom-up and top down observation communities. COCOS will also perform integrated regional-scale multiple constraint assessments of the land and ocean carbon balance through the use of harmonized data sets. It will identify, narrow down uncertainties and decrease differences in emerging global data sets that are aimed at providing constraints on the vulnerability of the global carbon cycle. COCOS will thus contribute to the implementation and improvement of global observing systems. It will organize a large international conference to demonstrate the status and way ahead of global carbon observations in light of monitoring requirements for GEO and the implementation of future climate change mitigation commitments. As such, it will contribute to an effective monitoring of the carbon cycle at global level as recommended by GEO and GCOS in supporting the European participation to an international CO2 research monitoring project. The research and harmonization work developed in this proposal will contribute significantly to building an integrated global approach that promotes close collaboration with the international carbon cycle research community.

#### Partners:

1	VERENIGING VOOR CHRISTELIJK HOGER ONDERWIJS WETENSCHAPPELIJK ONDERZOEK EN PATIENTENZORG	NL
2	UNIVERSITETET I BERGEN	NO
3	MAX PLANCK GESELLSCHAFT ZUR FOERDERUNG DER WISSENSCHAFTEN E.V.	DE
4	UNIVERSITA DEGLI STUDI DELLA TUSCIA	IT
5	LEIBNIZ-INSTITUT FUER MEERESWISSENSCHAFTEN AN DER UNIVERSITAET KIEL	DE
6	UNIVERSITE DE LIEGE	BE
7	COMMISSARIAT ENERGIE ATOMIQUE CEA	FR
8	ALFRED-WEGENER-INSTITUT FUER POLAR- UND MEERESFORSCHUNG	DE
9	UNIVERSITY OF EAST ANGLIA	UK
11	UNITED NATIONS EDUCATIONAL, SCIENTIFIC AND CULTURAL ORGANIZATION -UNESCO	FR
12	JOHANN HEINRICH VON THUENEN-INSTITUT, BUNDESFORSCHUNGSINSTITUT FUER LANDLICHE RAUME, WALD UND FISCHEREI	DE

**Activity Code:** ENV.2007.4.1.3.2. **Funding Scheme:** CP **Duration (Months):** 36

**Title:** Integration and enhancement of key existing European deep-ocean observatories

**Proposed EC Grant:** 3.482.600 € **Project homepage:** [www.eurosites.info](http://www.eurosites.info)

**Main project focus:** Deep sea research observatories

**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.

**Partners:**

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 SPERIMENTALE OGS	IT
5	CONSIGLIO NAZIONALE DELLE RICERCHE	IT
6	LEIBNIZ-INSTITUT FUER MEERESWISSENSCHAFTEN AN DER UNIVERSITAET 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 DE LA MER	FR
10	SOPAB BREST 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

**Activity Code:** ENV.2007.4.1.3.2. **Funding Scheme:** CP **Duration (Months):** 48

**Title:** Acoustic Technology for observing the interior of the Arctic Ocean

**Proposed EC Grant:** 3.000.000 € **Project homepage:** [acobar.nersc.no](http://acobar.nersc.no)

**Main project focus:** Environmental monitoring of the interior of the Arctic Ocean

**Abstract:**

ACOBAR will develop an observing system for the interior of the Arctic Ocean based on underwater acoustic methods including tomography, data transmission and communication to/from underwater platforms, and navigation of gliders. ACOBAR offers alternative methods to the ARGO system, which cannot be used in ice-covered seas, based on platforms located under the sea ice. Data collection and transmission from the water column, the seafloor and the subseafloor will be possible in ice-covered seas. ACOBAR will contribute to filling gaps in the global ocean observing system and thereby support the development of GEOSS. ACOBAR will implement field experiments with acoustic sources and receivers in the Fram Strait and the Arctic Ocean. Acoustic tomography will be used to obtain integrated 3-D fields of temperature, transports and heat fluxes. Long-range acoustic navigation commands will be tested to operate gliders. Data transmission from fixed moorings via acoustic modems to the surface for downloading from ships or for satellite transmission will be implemented. The existing array of acoustic sources from ice-tethered platforms in the Arctic Ocean will be tested for tomographic measurements of water mass properties. Data from tomography arrays and other underwater platforms will be disseminated to users with near real-time capability, including assimilation in ocean models. ACOBAR will extend and improve methods for underwater data collection that are presently tested in DAMOCLES IP. The acoustic technologies in ACOBAR aim to be used for transmission of multidisciplinary data from underwater observatories under development in ESONET NoE. Transfer of technology and know-how from USA to Europe will take place, with exchange of scientists, workshops and meetings between scientists, engineers and students. The consortium consists of 9 partners, of which three are SMEs and six are research and educational institutions.

**Partners:**

1	STIFTELSEN NANSEN SENTER FOR FJERNMAALING	NO
2	ALFRED-WEGENER-INSTITUT FUER POLAR- UND MEERESFORSCHUNG	DE
3	UNIVERSITE PIERRE ET MARIE CURIE - PARIS 6	FR
4	UNIVERSITY OF CALIFORNIA SAN DIEGO	US
5	WOODS HOLE OCEANOGRAPHIC INSTITUTION	US
6	OPTIMARE SENSORSYSTEME AG	DE
7	ECOLE NATIONALE SUPERIEURE DES INGENIEURS DES ETUDES ET TECHNIQUES D'ARMEMENT	FR
8	AQUATEC TELEMETRY LIMITED	UK
9	ARCHITECTURE ET CONCEPTION DE SYSTEMES AVANCES	FR

**Activity Code:** ENV.2008.4.1.2.1. **Funding Scheme:** CP **Duration (Months):** 36

**Title:** In situ monitoring of oxygen depletion in hypoxic ecosystems of coastal and open seas, and land-locked water bodies

**Proposed EC Grant:** 3.499.711 € **Project homepage:** [www.hypox.net](http://www.hypox.net)

**Main project focus:** Monitoring of oxygen depletion in aquatic ecosystems

#### Abstract:

Hypoxic (low oxygen) conditions in aquatic ecosystems increase in number, duration and extent due to global warming and eutrophication. Global warming will lead to degassing of oxygen, increased stratification, reduced deep-water circulation and changes in wind patterns affecting transport and mixing. Projected increases in hypoxia (e.g. doubling of "dead zones") are accompanied by enhanced emission of greenhouse gases, losses in biodiversity, ecosystem functions and services such as fisheries, aquaculture and tourism. A better understanding of global changes in oxygen depletion requires a global observation system continuously monitoring oxygen at high resolution, including assessment of the role of the seafloor in controlling the sensitivity of aquatic systems to and recovery from hypoxia. Here we propose to monitor oxygen depletion and associated processes in aquatic systems that differ in oxygen status or sensitivity towards change: open ocean, oxic with high sensitivity to global warming (Arctic), semi-enclosed with permanent anoxia (Black Sea, Baltic Sea) and seasonally or locally anoxic land-locked systems (fjords, lagoons, lakes) subject to eutrophication. We will improve the capacity to monitor oxygen depletion globally, by implementing reliable long-term sensors to different platforms for in situ monitoring; and locally by training and implementing competence around the Black Sea. Our work will contribute to GEOSS tasks in the water, climate, ecosystem and biodiversity work plans, and comply to GEOSS standards by sharing of observations and products with common standards and adaptation to user needs using a state of the art world data centre. We will connect this project to the GOOS Regional Alliances and the SCOR working group and disseminate our knowledge to local, regional and global organisations concerned with water and ecosystem health and management.

#### Partners:

1	MAX PLANCK GESELLSCHAFT ZUR FOERDERUNG DER WISSENSCHAFTEN E.V.	DE
2	ALFRED-WEGENER-INSTITUT FUER POLAR- UND MEERESFORSCHUNG	DE
3	EIDGENOESSISCHE ANSTALT FUR WASSERVERSORGUNG ABWASSERREINIGUNG UND GEWAESSERSCHUTZ	CH
4	A.O. KOVALEVSKIY INSTITUTE OF BIOLOGY OF SOUTHERN SEAS	UA
5	LEIBNIZ-INSTITUT FUER MEERESWISSENSCHAFTEN AN DER UNIVERSITAET KIEL	DE
6	INSTITUT FRANCAIS DE RECHERCHE POUR L'EXPLOITATION DE LA MER	FR
7	ISTITUTO NAZIONALE DI GEOFISICA E VULCANOLOGIA	IT
8	INSTITUT FUER OSTSEEFORSCHUNG WARNEMUENDE AN DER UNIVERSITAET ROSTOCK	DE
9	ISTANBUL TEKNIK UNIVERSITESI	TR
10	UNIVERSITAET BREMEN	DE
11	THE SCOTTISH ASSOCIATION FOR MARINE SCIENCE	UK
12	GOETEBORGS UNIVERSITET	SE
13	UNIVERSITY OF PATRAS	EL
14	GKSS - FORSCHUNGSZENTRUM GEESTHACHT GMBH	DE
15	INSTITUTUL NATIONAL DE CERCETARE-DEZVOLTARE PENTRU GEOLOGIE SI GEOECOLOGIE MARINA-GEOECOMAR	RO
16	KONINKLIJKE NEDERLANDSE AKADEMIE VAN WETENSCHAPPEN - KNAW	NL

**Activity Code:** ENV.2008.4.1.3.1. **Funding Scheme:** CP **Duration (Months):** 48

**Title:** Energy Observation for monitoring and assessment of the environmental impact of energy use

**Proposed EC Grant:** 6.010.977 € **Project homepage:** [www.energeo-project.eu](http://www.energeo-project.eu)

**Main project focus:** Modelling platform that will enable planners, environmentalists and governments to calculate, forecast and monitor the environmental impact of changes in the energy mix on local, regional and global scales

#### Abstract:

The main objective of the EnerGEO project is to develop a strategy for a global assessment of the current and future impact of the exploitation of energy resources on the environment and ecosystems and to demonstrate this strategy for a variety of energy resources worldwide. The global observation strategy will be developed to appropriately assess the impacts of current and future transitions in energy-use on the environment by a combination of: • models already available for the different sources of energy: TASES, REMIX and MESSAGE • existing global datasets from which environmental indicators will be derived to quantify changes to freshwater systems, biosphere, ecosystems, atmosphere and oceans. • existing and currently developed models capable of assessing and forecasting environmental impacts and costs of energy exploitation. By developing a distributed system based on the recommendations of the GEO-Architecture and Data Committee global collection and dissemination of data relating to the effect of energy use on the environment will be supported. By including members of the Energy-Community of Practice of GEO, sustained contribution of the GEO-tasks EN-07-02 and EN-07-3 will be realised. The project takes the testing and demonstration of the observing system and developed scenarios through the execution of dedicated pilots at heart. The pilots are focused on the most important issues relating to atmospheric composition and land degradation through the use of fossil fuels, future impacts of the use and production of biomass on land ecosystems and food security, sustainable integration of solar energy in current grids as well as its visual impact and relating to the impact of wind energy on marine ecosystems. Attention will be given to pollutants that are continuously cycling between the atmosphere and aquatic ecosystems. The results of the pilots feed into an integrated platform that will be run for known scenarios in order to assess energy strategies.

#### Partners:

1	NEDERLANDSE ORGANISATIE VOOR TOEGEPAST NATUURWETENSCHAPPELIJK ONDERZOEK - TNO	NL
2	ASSOCIATION POUR LA RECHERCHE ET LE DEVELOPPEMENT DES METHODES ET PROCESSUS INDUSTRIELS - ARMINES	FR
3	DEUTSCHES ZENTRUM FUER LUFT - UND RAUMFAHRT EV	DE
4	BMT ARGOSS BV	NL
5	Research Studios Austria Forschungsgesellschaft mbH	AT
6	INTERNATIONALES INSTITUT FUER ANGEWANDTE SYSTEMANALYSE	AT
7	UNIRESEARCH BV	NL
8	PARIS-LODRON-UNIVERSITAT SALZBURG	AT
9	AKADEMIA GORNICZO-HUTNICZA IM. STANISBAWA STASZICA W KRAKOWIE	PL
10	Pakistan Space and Upper Atmosphere Research Commission	PK
11	INSTITUT FUR ENERGIE UND UMWELTTECHNIK EV - IUTA	DE
12	STICHTING SRON NETHERLANDS INSTITUTE FOR SPACE RESEARCH	NL

**Activity Code:** ENV.2008.4.1.4.1. **Funding Scheme:** CP **Duration (Months):** 48

**Title:** Building Capacity for a Black Sea Catchment Observation and Assessment System supporting Sustainable Development

**Proposed EC Grant:** 6.222.574 € **Project homepage:** [www.envirogrids.net](http://www.envirogrids.net)

**Main project focus:** Black sea basin observation capacity building

#### Abstract:

The Black Sea Catchment is internationally known as one of ecologically unsustainable development and inadequate resource management, which has led to severe environmental, social and economic problems. EnviroGRIDS @ Black Sea Catchment aims at building the capacities of regional stakeholders to use new international standards to gather, store, distribute, analyze, visualize and disseminate crucial information on past, present and future states of the environment, in order to assess its sustainability and vulnerability. The EnviroGRIDS @ Black Sea Catchment project addresses these issues by bringing several emerging information technologies that are revolutionizing the way we are able to observe our planet. The Group on Earth Observation Systems of Systems (GEOSS) is building a data-driven view of our planet that feeds into models and scenarios. EnviroGRIDS aims at building the capacity of scientist to assemble such a system in the Black Sea Catchment, the capacity of decision-makers to use it, and the capacity of the general public to understand the important environmental, social and economic issues at stake. To achieve its objectives, EnviroGRIDS will build an ultra-modern Grid enabled Spatial Data Infrastructure (GSDI) that will become one component in the Global Earth Observation System of Systems (GEOSS), compatible with the new EU directive on Infrastructure for Spatial Information in the European Union (INSPIRE). EnviroGRIDS will particularly target the needs of the Black Sea Commission (BSC) and the International Commission for the Protection of the Danube River (ICPDR) in order to help bridging the gap between science and policy.

#### Partners:

1	UNIVERSITE DE GENEVE	CH
6	Ceske centrum pro vedu a spolecnost	CZ
7	ORGANISATION EUROPEENNE POUR LA RECHERCHE NUCLEAIRE EUROPEAN ORGANIZATION FOR NUCLEAR RESEARCHCERN	CH
11	EIDGENOESSISCHE ANSTALT FUR WASSERVERSORGUNG ABWASSERREINIGUNG UND GEWAESSERSCHUTZ	CH
12	GIS and RS Consulting Center GeoGraphic	GE
15	UNESCO-IHE INSTITUTE FOR WATER EDUCATION	NL
22	UNIVERSITAT AUTONOMA DE BARCELONA	ES
24	UKRAINIAN SCIENTIFIC AND RESEARCH INSTITUTE OF ECOLOGICAL PROBLEMS	UA
27	Soresma NV	BE
28	SAINT PETERSBURG STATE UNIVERSITY - SPSU	RU
29	TECHNICAL UNIVERSITY OF ISTANBUL	TR
30	Melitopol State Pedagogical University	UA
31	arx iT Consulting	CH
32	BLACK SEA REGIONAL ENERGY CENTRE	BG
34	INSTITUTUL NATIONAL DE CERCETARE DEZVOLTARE DELTA DUNARII	RO
35	DANUBE HYDROMETEOROLOGICAL OBSERVATORY OF STATE HYDROMETEOROLOGICAL SERVICE OF MINISTRY OF UKRAINE OF EMERGENCIES AND AFFAIRS OF POPULATION PROTECTION FROM CONSEQUENCES OF CHORNOBYL CATASTROPHE	UA
36	A.O. KOVALEVSKIY INSTITUTE OF BIOLOGY OF SOUTHERN SEAS	UA
37	INSTITUTUL DE GEOGRAFIE	RO
38	INSTITUTUL NATIONAL DE HIDROLOGIE SI GOSPODARIRE A APELOR	RO
39	ODESSA NATIONAL I.I. MECHNIKOV UNIVERSITY	UA
40	UNIVERSITATEA TEHNICA CLUJ-NAPOCA	RO
41	VITUKI KORNYEZETVEDELMI ES VIZGAZDALKODASI KUTATO INTEZET NONPROFIT KOZHASZNU KORLATOLT FELELOSSEGU TARSASAG	HU
42	PERMANENT SECRETARIAT OF THE COMMISSION ON THE PROTECTION OF THE BLACKSEA AGAINST POLLUTION	TR
43	CENTRO DI RICERCA, SVILUPPO E STUDI SUPERIORI IN SARDEGNA	IT
45	International Commission for the Protection of the Danube River	AT

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46	NATIONAL INSTITUTE OF METEOROLOGY AND HYDROLOGY OF THE BULGARIAN ACADEMY OF SCIENCES	BG
47	TAURIDA NATIONAL V.I. VERNADSKY UNIVERSITY	UA

**Activity Code:** ENV.2008.4.2.3.2. **Funding Scheme:** CSA **Duration (Months):** 30

**Title:** How to achieve sustainable water ecosystems management connecting research, people and policy makers in Europe

**Proposed EC Grant:** 1.497.356 € **Project homepage:** [www.aware-eu.net](http://www.aware-eu.net)

**Main project focus:** Research on anthropogenic deterioration of water ecosystems in coastal areas

**Abstract:**

The issue of concern of the AWARE project is the anthropogenic deterioration of water ecosystems, in particular in coastal areas. The new approach proposed by the AWARE project to enhance connectivity between research and policy-making exploit the concept of integrated adaptive ecosystem management, engaging scientists, policy makers and the public (the latter including both stakeholders and lay citizens/water users) into comparable case studies of participatory scenario-building. The emphasis given to the role of the public enlarges the concept of organisational learning to the wider concept of social learning. The specific objectives and WPs of the AWARE project will include therefore: WP1: to design and prepare the pilot experiments of participatory scenario-building; WP2: to perform three case studies of participatory-scenario building in different coastal regions of Europe; WP3: to make an evaluation and assessment of the pilot case studies and of the proposed approach; WP4: to foster networking between science institutions, policy authorities and stakeholders in the case study areas and at EU level, and disseminate the approach elsewhere in Europe. The AWARE consortium includes 13 partners of complementary expertise in the field of aquatic ecosystems studies (UU, UPMC, ULB, UNIPR), social sciences (ADELPHI, ICCR, Missions Publiques), system analysis (ISIS, JRC-IES, UNISI) and integrated water management (BIOFORSK, POLIEDRA), plus the Environmental Service from the Provincial Administration of Ferrara. The consortium will be complemented by an advisory group of 20 policy makers and stakeholders.

**Partners:**

1	ISTITUTO DI STUDI PER L'INTEGRAZIONE DEI SISTEMI (ISIS)	IT
2	NORWEGIAN INSTITUTE FOR AGRICULTURAL AND ENVIRONMENTAL RESEARCH - BIOFORSK	NO
3	ADELPHI RESEARCH GGMBH	DE
4	INTERDISCIPLINARY CENTRE FOR COMPARATIVE RESEARCH IN THE SOCIAL SCIENCES - ICCR	AT
5	UPPSALA UNIVERSITET	SE
6	MISSIONS PUBLIQUES	FR
7	COMMISSION OF THE EUROPEAN COMMUNITIES - DIRECTORATE GENERAL JOINT RESEARCH CENTRE - JRC	BE
8	UNIVERSITA' DEGLI STUDI DI SIENA	IT
9	UNIVERSITA DEGLI STUDI DI PARMA	IT
10	Poliedra - Centri di conoscenza e formazione del Politecnico di Milano	IT
11	UNIVERSITE PIERRE ET MARIE CURIE - PARIS 6	FR
12	PROVINCIA DI FERRARA	IT
13	UNIVERSITE LIBRE DE BRUXELLES	BE

**Activity Code:** ENV.2008.5.1.0.1. **Funding Scheme:** CSA **Duration (Months):** 48

**Title:** Communicating environmental impacts on water quality, availability and use

**Proposed EC Grant:** 871.620 € **Project homepage:** [not yet available](#)

**Main project focus:** Communicate the results of environment research to EU citizens

#### Abstract:

The ComEnvir project aims to narrow the gap between EU sponsored environmental research and European citizens. Water (resources, quality, pollution and biodiversity issues) has been chosen as a common theme to be addressed by the project. It will cover environmental stressors, waste treatment, health effects, biodiversity, risks and therefore the role of water quality in its different environmental locations (fresh water, marine, soil, air). The project will last 48 months. The project will communicate results and activities of EU environmental research with two specific target groups. The primary target group are teachers and students. The second target group is the general public. The overall project objectives are to: • empower the European citizens to constructively engage in scientific dialogue and debate • inform European consumers of the latest scientific advances in the food sector • strengthen science education in classrooms and • promote scientific curiosity among the youth. The ComEnvir project will achieve its set objectives through a number of innovative approaches and strategies that have already been piloted in 2006 and 2007. These approaches centre around three key elements: • creation of knowledge packages on EU environmental research and will include films, film clips, FAQs, news, background reading materials, a glossary and links • effective dissemination measures (broadcast media, DVDs and internet) and • thorough evaluation of on-going project deliverables. The nine project members, located in Denmark, France, Germany, Italy, The Netherlands, Norway and the UK possess complementary expertise that assures successful project outcome. The project will last 48 months.

#### Partners:

1	LUDWIG-MAXIMILIANS-UNIVERSITAET MUENCHEN	DE
2	ProBio Partners VOF	NL
3	Visions Unlimited Medien	DE
5	Høgskolen i Hedmark	NO
6	ECT Oekotoxikologie GmbH	DE
7	CONSIGLIO NAZIONALE DELLE RICERCHE	IT
8	ECOLOGICAL CONSULTANCY SERVICES LIMITED	IE
10	AGENCIA ESTATAL CONSEJO SUPERIOR DE INVESTIGACIONES CIENTIFICAS	ES

**Activity Code:** Ocean.2010-1      **Funding Scheme:** CP      **Duration (Months):** 48  
**Title:** Arctic Climate Change, Economy and Society

**Proposed EC Grant:** 10.998.027 €      **Project homepage:** [not yet available](#)

**Main project focus:** Quantifying the impact of climate change on macro and meso-economic levels and in key economic sectors using an integrated and trans-sectoral approach.

#### Abstract:

The Arctic is engaged in a deep climatic evolution. This evolution is quite predictable at short (year) and longer scales (several decades), but it is the decadal intermediate scale that is the most difficult to predict. This is because the natural variability of the system is large and dominant at this scale, and the system is highly non linear due to positive and negative feedback between sea ice, the ocean and atmosphere. Already today, due to the increase of the GHG concentration in the atmosphere and the amplification of global warming in the Arctic, the impacts of climate change in the region are apparent, e.g. in the reduction in sea ice, in changes in weather patterns and cyclones or in the melting of glaciers and permafrost. It is therefore not surprising that models clearly predict that Arctic sea ice will disappear in summer within 20 or 30 years, yielding new opportunities and risks for human activities in the Arctic. This climatic evolution is going to have strong impacts on both marine ecosystems and human activities in the Arctic. This in turn has large socio-economic implications for Europe. ACCESS will evaluate climatic impacts in the Arctic on marine transportation (including tourism), fisheries, marine mammals and the extraction of hydrocarbons for the next 20 years; with particular attention to environmental sensitivities and sustainability. These meso-economic issues will be extended to the macro-economic scale in order to highlight trans-sectoral implications and provide an integrated assessment of the socio-economic impact of climate change. An important aspect of ACCESS, given the geostrategic implication of Arctic state changes, will be the consideration of Arctic governance issues, including the framework UNCLOS (United Nations Convention for the Law of the Sea). ACCESS dedicates a full work package to integrate Arctic climate changes, socioeconomic impacts and Arctic governance issues.

#### Partners:

1	UNIVERSITE PIERRE ET MARIE CURIE - PARIS 6	FR
2	O.A. SYS - OCEAN ATMOSPHERE SYSTEMS GMBH	DE
3	NATURAL ENVIRONMENT RESEARCH COUNCIL	UK
4	INSTITUT FÜR WELTWIRTSCHAFT	DE
5	WWF International Arctic Programme	NO
6	THE CHANCELLOR, MASTERS AND SCHOLARS OF THE UNIVERSITY OF CAMBRIDGE	UK
7	ALFRED-WEGENER-INSTITUT FÜR POLAR- UND MEERESFORSCHUNG	DE
8	Dr-Ing. Joachim Schwarz	DE
9	NOFIMA MARIN AS	NO
10	HAMBURGISCHE SCHIFFBAU-VERSUCHSANSTALT GMBH	DE
11	NORSK POLARINSTITUTT	NO
12	METEOROLOGISK INSTITUTT	NO
13	FastOpt GmbH	DE
14	THE SCOTTISH ASSOCIATION FOR MARINE SCIENCE	UK
15	KUNGLIGA VETENSKAPSAKADEMIEN	SE
16	P.P. SHIRSHOV INSTITUTE OF OCEANOLOGY OF RUSSIAN ACADEMY OF SCIENCES	RU
17	IMPaC Offshore Engineering GmbH	DE
18	UNIVERSITAT POLITÈCNICA DE CATALUNYA	ES
19	DEUTSCHES ZENTRUM FÜR LUFT - UND RAUMFAHRT EV	DE
20	ARCTIC AND ANTARCTIC RESEARCH INSTITUTE OF ROSHYDROMET - STATE RESEARCH CENTER OF RUSSIAN FEDERATION	RU
21	ECONOMIC AND SOCIAL RESEARCH INSTITUTE	IE
22	LAPIN YLIOPISTO	FI
23	SINTEF FISKERI OG HAVBRUK AS	NO
24	CICERO SENTER KLIMAFORSKNING STIFTELSE	NO
25	STIFTELSEN SINTEF	NO

Important notice: Provisional data based on evaluation results and subject to modification (see Disclaimer)

**Activity Code:** Ocean.2010-2      **Funding Scheme:** CP      **Duration (Months):** 48  
**Title:** Vectors of Change in Oceans and Seas Marine Life, Impact on Economic Sectors

**Proposed EC Grant:** 12.484.832 €      **Project homepage:** [not yet available](#)

**Main project focus:** Integrated cross sectoral analysis and understating of multiple pressures on marine ecosystems

**Abstract:**

Marine life makes a substantial contribution to the economy and society of Europe. VECTORS will elucidate the drivers, pressures and vectors that cause change in marine life, the mechanisms by which they do so, the impacts that they have on ecosystem structures and functioning, and on the economics of associated marine sectors and society. VECTORS will particularly focus on causes and consequences of invasive alien species, outbreak forming species, and changes in fish distribution and productivity. New and existing knowledge and insight will be synthesised and integrated to project changes in marine life, ecosystems and economies under future scenarios for adaptation and mitigation in the light of new technologies, fishing strategies and policy needs. VECTORS will evaluate current forms and mechanisms of marine governance in relation to the vectors of change. Based on its findings, VECTORS will provide solutions and tools for relevant stakeholders and policymakers, to be available for use during the lifetime of the project. The project will address a complex array of interests comprising areas of concern for marine life, biodiversity, sectoral interests, regional seas, and academic disciplines as well as the interests of stakeholders. VECTORS will ensure that the links and interactions between all these areas of interest are explored, explained, modelled and communicated effectively to the relevant stakeholders. The VECTORS consortium is extremely experienced and genuinely multidisciplinary. It includes a mixture of natural scientists with knowledge of socio-economic aspects, and social scientists (environmental economists, policy and governance analysts and environmental law specialists) with interests in natural system functioning. VECTORS is therefore fully equipped to deliver the integrated interdisciplinary research required to achieve its objectives with maximal impact in the arenas of science, policy, management and society.

**Partners:**

1	PLYMOUTH MARINE LABORATORY	UK
2	THE UNIVERSITY COURT OF THE UNIVERSITY OF ST ANDREWS	UK
3	ACONDICIONAMIENTO TARRASENSE ASSOCIACION	ES
4	CONSORZIO NAZIONALE INTERUNIVERSITARIO PER LE SCIENZE DEL MARE	IT
5	JOHANN HEINRICH VON THUENEN-INSTITUT, BUNDESFORSCHUNGSINSTITUT FUER LANDLICHE RAUME, WALD UND FISCHEREI	DE
6	UNIVERSITY COLLEGE DUBLIN, NATIONAL UNIVERSITY OF IRELAND, DUBLIN	IE
7	STICHTING DIENST LANDBOUWKUNDIG ONDERZOEK	NL
8	TARTU ULIKOOL	EE
9	WAGENINGEN UNIVERSITEIT	NL
10	STICHTING DELTARES	NL
11	THE SECRETARY OF STATE FOR ENVIRONMENT, FOOD AND RURAL AFFAIRS	UK
12	UNIVERSITY OF HULL	UK
13	CONSIGLIO NAZIONALE DELLE RICERCHE	IT
14	ISRAEL OCEANOGRAPHIC AND LIMNOLOGICAL RESEARCH LIMITED	IL
15	INSTITUT FRANCAIS DE RECHERCHE POUR L'EXPLOITATION DE LA MER	FR
16	AALBORG UNIVERSITET	DK
17	UNIVERSITA DI PISA	IT
18	AGENCIA ESTATAL CONSEJO SUPERIOR DE INVESTIGACIONES CIENTIFICAS	ES
19	FONDAZIONE ENI ENRICO MATTEI	IT
20	UNIVERSITAET HAMBURG	DE
21	DANMARKS TEKNISKE UNIVERSITET	DK
22	Gollaschconsulting	DE
23	UNIVERSITE DE BRETAGNE OCCIDENTALE	FR
24	BANGOR UNIVERSITY	UK
25	KLAIPEDOS UNIVERSITETAS	LT
26	HELLENIC CENTRE FOR MARINE RESEARCH	EL
27	INSTYTUT OCEANOLOGII - POLSKIEJ AKADEMII NAUK	PL

Important notice: Provisional data based on evaluation results and subject to modification (see Disclaimer)

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28	KONINKLIJKE NEDERLANDSE AKADEMIE VAN WETENSCHAPPEN - KNAW	NL
29	SIR ALISTER HARDY FOUNDATION FOR OCEAN SCIENCE	UK
30	UNIVERSITA DEGLI STUDI DI PAVIA	IT
31	INSTITUT SUPERIEUR DES SCIENCES AGRONOMIQUES, AGROALIMENTAIRES, HORTICOLES ET DU PAYSAGE	FR
32	UNIVERSITE DE ROUEN	FR
33	Community of European Shipyards Associations asbl	BE
34	UNIVERZA V LJUBLJANI	SI
35	ISTITUTO NAZIONALE DI OCEANOLOGIA E DI GEOFISICA SPERIMENTALE OGS	IT
36	INSTITUT FUER OSTSEEFORSCHUNG WARNEMUENDE AN DER UNIVERSITAET ROSTOCK	DE
37	AARHUS UNIVERSITET	DK

**Activity Code:** Ocean.2010-3      **Funding Scheme:** CP      **Duration (Months):** 48  
**Title:** Sub-seabed CO2 Storage: Impact on Marine Ecosystems (ECO2)

**Proposed EC Grant:** 10.500.000 €      **Project homepage:** [not yet available](#)

**Main project focus:** Carbon storage in the sea floor/analysis of environmental risks

#### Abstract:


The ECO2 project sets out to assess the risks associated with the storage of CO2 below the seabed. Carbon Capture and Storage (CCS) is regarded as a key technology for the reduction of CO2 emissions from power plants and other sources at the European and international level. The EU will hence support a selected portfolio of demonstration projects to promote, at industrial scale, the implementation of CCS in Europe. Several of these projects aim to store CO2 below the seabed. However, little is known about the short-term and long-term impacts of CO2 storage on marine ecosystems even though CO2 has been stored sub-seabed in the North Sea (Sleipner) for over 13 years and for one year in the Barents Sea (Snøhvit). Against this background, the proposed ECO2 project will assess the likelihood of leakage and impact of leakage on marine ecosystems. In order to do so ECO2 will study a sub-seabed storage site in operation since 1996 (Sleipner, 90 m water depth), a recently opened site (Snøhvit, 2008, 330 m water depth), and a potential storage site located in the Polish sector of the Baltic Sea (B3 field site, 80 m water depth) covering the major geological settings to be used for the storage of CO2. Novel monitoring techniques will be applied to detect and quantify the fluxes of formation fluids, natural gas, and CO2 from storage sites and to develop appropriate and effective monitoring strategies. Field work at storage sites will be supported by modelling and laboratory experiments and complemented by process and monitoring studies at natural CO2 seeps that serve as analogues for potential CO2 leaks at storage sites. ECO2 will also investigate the perception of marine CCS in the public and develop effective means to disseminate the project results to stakeholders and policymakers. Finally, a best practice guide for the management of sub-seabed CO2 storage sites will be developed applying the precautionary principle and valuing the costs for monitoring and remediation.

#### Partners:

1	LEIBNIZ-INSTITUT FUER MEERESWISSENSCHAFTEN AN DER UNIVERSITAET KIEL	DE
2	PLYMOUTH MARINE LABORATORY	UK
3	NORSK INSTITUTT FOR VANNFORSKNING	NO
4	NATURAL ENVIRONMENT RESEARCH COUNCIL	UK
5	UNIVERSITETET I BERGEN	NO
6	MAX PLANCK GESELLSCHAFT ZUR FOERDERUNG DER WISSENSCHAFTEN E.V.	DE
7	CHRISTIAN-ALBRECHTS-UNIVERSITAET ZU KIEL	DE
8	UNIVERSITETET I TROMSOE	NO
9	KONSORTIUM DEUTSCHE MEERESFORSCHUNG e.V.	DE
10	ALFRED-WEGENER-INSTITUT FUER POLAR- UND MEERESFORSCHUNG	DE
11	INSTITUT FUER OSTSEEFORSCHUNG WARNEMUENDE AN DER UNIVERSITAET ROSTOCK	DE
12	UNIVERSITA DEGLI STUDI DI ROMA LA SAPIENZA	IT
13	ISTITUTO NAZIONALE DI OCEANOGRAPHIA E DI GEOFISICA SPERIMENTALE OGS	IT
14	UNIVERSITAET STUTTGART	DE
15	STATOIL PETROLEUM AS	NO
16	DET NORSKE VERITAS AS	NO
17	UNIVERSITY OF SOUTHAMPTON	UK
18	INSTITUT FUR WELTWIRTSCHAFT	DE
19	THE UNIVERSITY OF EDINBURGH	UK
20	UNIVERSITEIT GENT	BE
21	HERIOT-WATT UNIVERSITY	UK
22	GOETEBORGS UNIVERSITET	SE
23	NEDERLANDSE ORGANISATIE VOOR TOEGEPAST NATUURWETENSCHAPPELIJK ONDERZOEK - TNO	NL
24	STICHTING ENERGIEONDERZOEK CENTRUM NEDERLAND	NL
25	INSTITUT FRANCAIS DE RECHERCHE POUR L'EXPLOITATION DE LA MER	FR
26	UNIWERSYTET GDANSKI	PL
27	Grupa LOTOS	PL

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The background image is a composite. The top half shows a tropical island with lush green vegetation and several palm trees under a bright blue sky with scattered white clouds. The bottom half is an underwater scene showing a vibrant coral reef. Various types of coral are visible, including branching and table corals. Several fish are swimming in the clear water, including a prominent yellow and black striped fish and a blue and white fish. The water is a clear, bright blue, and the overall scene is bright and colorful.

## Marine environmental research in FP7 – Period 2007-2010

The 7th Framework Programme for Research and Development (FP7) is supporting by its specific theme Environment (including climate change) research activities in the Marine area, such as the role of the oceans in the climate system, the overexploitation of marine living resources, pressures in coastal zones, the loss of marine biodiversity, etc.

This publication present a snapshot of the EU funded projects selected after the 4 calls for proposals covering the period 2007-2010. In total the described 46 projects represent more than 800 partners, which are receiving in total about 214 M€ as EU contribution.

Additional information:

Environmental research in the FP7:

[http://ec.europa.eu/research/environment/index\\_en.cfm](http://ec.europa.eu/research/environment/index_en.cfm)

FP7:

[http://cordis.europa.eu/fp7/home\\_en.html](http://cordis.europa.eu/fp7/home_en.html)