EUROPEAN COMMISSION

European Research Area

COOPERATION
Theme 6 – Environment (Including Climate Change)

Catalogue of projects 2009

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COOPERATION

European Commission

Directorate General for Research
Environment Directorate

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

Title: Climate change - Learning from the past climate

Proposed EC Grant: 6.647.909 €

Abstract:

In Past4Future we propose to combine multidisciplinary palaeoclimate records from ice cores, marine cores, speleothems, pollen and other records with focus on a global distribution of the records to reconstruct climate change and variability during the present interglacial and the last interglacial. 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 the interglacial climates. Earth system models (ESM) including physical and biogeochemical processes will be applied to simulate the past and present interglacial climate, confront and intercompare the simulations with climate changes as observed from the palaeodata to 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 represent a situation where the mean state was warmer than at present in large regions due to orbital forcing, thereby allowing testing 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 to reduce the current large uncertainties in our capabilities to project future global and regional warming 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 the one expected in 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.

Partners:

N	Partner Legal Name	Country
1	Københavns Universitet	DK
2	UNIFOB AS	NO
3	CENTRE NATIONAL DE LA RECHERCHE SCIENTIFIQUE (CNRS)	FR
4	AARHUS UNIVERSITET	DK
5	UNIVERSITAET BERN	CH
6	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 ENERGIE ATOMIQUE CEA	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 (Past Global Changes)	CH
20	GEOTOP	CA
21	EAST CHINA NORMAL UNIVERSITY ECNU	CN
22	UNIVERSITY OF OTTAWA	CA

Activity Code: ENV.2009.1.1.3.1 **Funding Scheme:** CP-IP **Duration (Months):** 42

Title: Greenhouse gas management in European land use systems

Proposed EC Grant: 6.648.710 €

Abstract:

The GHG-Europe project aims to improve our understanding and capacity for predicting the European terrestrial carbon and greenhouse gas (GHG) budget by applying a systematic, comprehensive and integrative approach. GHG-Europe quantifies the annual to decadal variability of the carbon and GHG budgets of terrestrial ecosystems in EU27 plus Switzerland and in six data-rich European regions via data-model integration, diagnostic and predictive modelling. Models are calibrated by multi-site observations. Research includes CO2, CH4 and N2O in forests, croplands, grasslands, shrublands, peatlands and soils. Via an integrated approach, GHG Europe scales up consistently from local to regional and continental scale via scale dependent error propagation and systematic quantification of uncertainties, model validation at different scales and top-down verification by atmospheric inversion models. At regional and European scale lateral C transport by land use, trade and rivers are included. Variability in C and GHG budgets is attributed to natural (climate) and anthropogenic drivers (N deposition, land use, past and present management) by synthesis of past and emerging experiments, targeted observations in hot spots and hot moments and model sensitivity analyses. For this purpose, observations are extended to under-sampled regions and ecosystems with likely high importance for the European C budget: forests and land use change in Eastern Europe and Mediterranen shrublands. The future vulnerability of carbon pools and risks of positive feedbacks in the climate-carbon system are assessed by scenario analyses with biophysical models and by integrating feedbacks with socio-economic changes and EU climate and land use policies. GHG-Europe uses a bidirectional interaction with stakeholders to provide regular and timely scientific advice targeted to the emerging needs of the UNFCCC process and for implementing post-2012 climate commitments in Europe.

Partners:

N	Partner Legal Name	Country
1	JOHANN HEINRICH VON THUENEN-INSTITUT, BUNDESFORSCHUNGSINSTITUT FUER LANDLICHE RAUME, WALD UND FISCHEREI	DE
2	COMMISSARIAT ENERGIE ATOMIQUE CEA	FR
3	INTERNATIONALES INSTITUT FUER ANGEWANDTE SYSTEMANALYSE	AT
4	MAX PLANCK GESELLSCHAFT ZUR FOERDERUNG DER WISSENSCHAFTEN E.V.	DE
5	THE UNIVERSITY COURT OF THE UNIVERSITY OF ABERDEEN	UK
6	UNIVERSITA DEGLI STUDI DELLA TUSCIA	IT
7	VERENIGING VOOR CHRISTELIJK HOGER ONDERWIJS WETENSCHAPPELIJK ONDERZOEK EN PATIENTENZORG	NL
8	ALTERRA B.V.	NL
9	NATURAL ENVIRONMENT RESEARCH COUNCIL	UK
10	Eidgenössische Technische Hochschule Zürich	CH
11	INSTITUTUL DE CERCETARI SI AMENAJARI SILVICE (ICAS)	RO
12	INSTITUT NATIONAL DE LA RECHERCHE AGRONOMIQUE	FR
13	AKADEMIA ROLNICZA IM AUGUSTA CIESZKOWSKIEGO W POZNANIU	PL
14	TECHNISCHE UNIVERSITAET MUENCHEN	DE
15	UNIVERSITEIT ANTWERPEN	BE
16	FUNDACION CENTRO DE ESTUDIOS AMBIENTALES DEL MEDITERRANEO	ES
17	HELSINGIN YLIOPISTO	FI
18	Bundesforschungs-und Ausbildungszentrum für Wald, Naturgefahren und Landschaft	AT
19	FONDAZIONE EDMUND MACH	IT
20	DANMARKS TEKNISKE UNIVERSITET	DK
21	STICHTING ENERGIEONDERZOEK CENTRUM NEDERLAND	NL
22	EUROPEAN FOREST INSTITUTE	FI
23	ILMATIETEEN LAITOS	FI
24	JOANNEUM RESEARCH FORSCHUNGSGESELLSCHAFT MBH	AT
25	Autonomous Province of Bolzano/Bozen South Tyrol - Forest Departement	IT
26	RIJKSUNIVERSITEIT GRONINGEN	NL
27	SVERIGES LANTBRUKSUNIVERSITET	SE

28	SUOMEN YMPARISTOKESKUS	FI
29	UNIVERSITY COLLEGE DUBLIN, NATIONAL UNIVERSITY OF IRELAND, DUBLIN	IE
30	Københavns Universitet	DK
31	UNIVERSITAET INNSBRUCK	AT
32	ALMA MATER STUDIORUM-UNIVERSITA DI BOLOGNA	IT
33	UNIVERSIDAD DE GRANADA	ES
34	WAGENINGEN UNIVERSITEIT	NL
35	Università degli Studi di Udine	IT
36	RUPRECHT-KARLS-UNIVERSITAET HEIDELBERG.	DE
37	CONSIGLIO NAZIONALE DELLE RICERCHE	IT
38	Centre Tecnologic Forestal de Catalunya	ES
39	UNIVERSIDAD DE CASTILLA - LA MANCHA	ES
40	METEO-FRANCE	FR
41	POTSDAM INSTITUT FUER KLIMAFOLGENFORSCHUNG	DE

Activity Code: ENV.2009.1.1.4.1 **Funding Scheme:** CP-FP **Duration (Months):** 48

Title: EU Cloud Intercomparison, Process Study and Evaluation Project

Proposed EC Grant: 3.500.000 €

Abstract:

Cloud feedbacks remain the largest source of uncertainty in projections of future climate. They are also a major contributor to uncertainty in other feedbacks (e.g., surface albedo, carbon cycle) in the Earth System. Through interactions with the large-scale circulation, cloud processes also contribute to synoptic circulations and regional climate. They are therefore critical to the prediction of future changes in precipitation patterns, climate variability and extreme events. The central objective of EUCLIPSE is to reduce the uncertainty in the representation of cloud processes and feedbacks in the new generation of Earth System Models (ESMs), in support of the IPCC's fifth assessment report. Novel, process-oriented evaluations of clouds in present-day and future climate simulations made by the leading European ESMs will identify the cloud types and processes responsible for the spread in climate sensitivity and future precipitation changes across the models, and for deficiencies in the simulation of the present-day climate. The new diagnostics and metrics developed in EUCLIPSE will inform targeted sensitivity experiments to isolate the processes responsible for cloud feedback uncertainty. In EUCLIPSE, four distinct communities will work together across a set of integrated work packages over a four-year period: the observational community will provide state-of-the-art measurements from ground- and space-based active and passive remote sensing; the numerical weather prediction community will provide analyses of short timescale model biases induced by cloud processes; the cloud modeling community will provide fine-scale models as an additional tool for understanding cloud behavior in a changing climate; finally, the climate modeling community will synthesize the physical understanding and observational constraints identified by the other communities to improve the representation and assessment of cloud processes in ESMs and so improve the predictive skill of ESMs.

Partners:

N	Partner Legal Name	Country
1	KONINKLIJK NEDERLANDS METEOROLOGISCH INSTITUUT (KNMI)	NL
2	MAX PLANCK GESELLSCHAFT ZUR FOERDERUNG DER WISSENSCHAFTEN E.V.	DE
3	Met Office, for and on behalf of the Secretary of State for the Defence of the United Kingdom, Great Britain and Northern Ireland	UK
4	Centre National de la Recherche Scientifique	FR
5	ACADEMYOFATHENS	EL
6	EUROPEAN CENTRE FOR MEDIUM-RANGE WEATHER FORECASTS	UK
7	Delft University of Technology	NL
8	METEO-FRANCE	FR
9	STOCKHOLMS UNIVERSITET	SE
10	EIDGENOESSISCHE TECHNISCHE HOCHSCHULE ZUERICH	CH
11	UNIWERSYTET WARSZAWSKI	PL
12	Jet Propulsion Laboratory	US
13	Deutsches Klimarechenzentrum GmbH	DE

Activity Code: ENV.2009.1.1.5.2 **Funding Scheme:** CP-SICA **Duration (Months):** 48

Title: Climate Induced Changes on the Hydrology of Mediterranean Basins: Reducing Uncertainty and Quantifying Risk through an Integrated Monitoring and Modeling System

Proposed EC Grant: 3.149.757 €

Abstract:

With regard to the objectives specified in ENV-2009.1.1.5.2, modeling capabilities must be improved and appropriate tools developed to advance the capability to assess climate effects on water resources and uses. The project consortium will employ a combination of novel field monitoring concepts, remote sensing techniques, integrated hydrologic (and biophysical) modeling and socioeconomic factor analyses to reduce existing uncertainties in climate change impact analysis and to create an integrated quantitative risk and vulnerability assessment tool. Together, these will provide the necessary information to design appropriate adaptive water resources management instruments and select suitable agricultural practices under climate change conditions. The integrated risk and vulnerability analysis tool will also enable assessment of risks for conflict-inducing actions, e.g. migration. The improved models, new assessment tools, and their results will be evaluated against current methodologies. Improvements will be communicated to stakeholders and decision makers in a transparent, easy-to-understand form, enabling them to utilize the new findings in regional water resource and agricultural management initiatives as well as in the design of mechanisms to reduce potential for conflict (linkage to SSH-2009.4.2.1).

Partners:

N	Partner Legal Name	Country
1	LUDWIG-MAXIMILIANS-UNIVERSITAET MUENCHEN	DE
2	Agris Sardegna - Agenzia per la Ricerca in Agricoltura	IT
3	CHRISTIAN-ALBRECHTS-UNIVERSITAET ZU KIEL	DE
4	CENTRE NATIONAL DU MACHINISME AGRICOLE, DU GENIE RURAL, DES EAUX ET DES FORETS	FR
5	Centre de recherches et des technologies des eaux	TN
6	CINFAI	IT
7	CENTRO DI RICERCA, SVILUPPO E STUDI SUPERIORI IN SARDEGNA	IT
8	DEUTSCHES ZENTRUM FUER LUFT - UND RAUMFAHRT EV	DE
9	FORSCHUNGSZENTRUM JUELICH GMBH	DE
10	GEBZE YUKSEK TEKNOLOJI ENSTITUSU	TR
11	Institut national de la recherche scientifique	CA
12	JOANNEUM RESEARCH FORSCHUNGSGESELLSCHAFT MBH	AT
13	UNIVERSITE D'ANGERS	FR
14	Islamic University of Gaza	PS
15	UNIVERSITA DEGLI STUDI DI PADOVA	IT
16	UNIVERSITA DEGLI STUDI DI TRENTO	IT
17	Zagazig University	EG
18	VISTA Geowissenschaftliche Fernerkundung GmbH	DE
19	Bayerische Forschungsallianz gemeinnützige GmbH	DE

Activity Code: ENV.2009.1.1.5.2 **Funding Scheme:** CP-SICA **Duration (Months):** 36

Title: Water Availability and Security in Southern EuRope and the Mediterranean

Proposed EC Grant: 2.934.287 €

Abstract:

The WASSERMed project will analyse, in a multi-disciplinary way, ongoing and future climate induced changes in hydrological budgets and extremes in southern Europe, North Africa and the Middle East under the frame of threats to national and human security. A climatic and hydrological component directly addresses the reduction of uncertainty and quantification of risk. This component will provide an interface to other climatologic projects and models, producing climate change scenarios for the Mediterranean and Southern Europe, with special emphasis on precipitation. Five case studies will be considered: 1) Syros Island (Greece), 2) Sardinia Island (Italy), 3) Merguellil watershed (Tunisia), 4) Jordan river basin, and 5) the Nile River system (Egypt). The case studies are illustrative and represent situations which deserve special attention, due to their relevance to national and human security. Furthermore, impacts on key strategic sectors, such as agriculture and tourism, will be considered, as well as macroeconomic implications of water availability in terms of regional income, consumption, investment, trade flows, industrial structure and competitiveness. WASSERMed is an interdisciplinary project, which overall aims at all three targets of the call, through the integration of climate change scenarios, holistic water system modelling and interdisciplinary impact assessment, with three main contributions: a) Integration of climate change scenarios, holistic water system modelling. This provides results for reduction of uncertainties of climate change impacts on hydrology in the identified regions; b) Interdisciplinary approach, coupling macroeconomic implications and technical indicators. This provides a better assessment of climate effects to water resources, water uses and expected security risks; c) Proposal of specific adaptation measures for key sectors of the Mediterranean economy. This provides better basis for achieving water security.

Partners:

N	Partner Legal Name	Country
1	CENTRO EURO-MEDITERRANEO PER I CAMBIAMENTI CLIMATICI SCARL	IT
2	THE UNIVERSITY OF EXETER	UK
3	CENTRO INTERNAZIONALE DI ALTI STUDI AGRONOMICI MEDITERRANEI - ISTITUTO AGRONOMICO MEDITERRANEO DI BARI	IT
4	CLU srl	IT
5	NATIONAL TECHNICAL UNIVERSITY OF ATHENS	EL
6	UNIVERSIDAD POLITECNICA DE MADRID	ES
7	National Center for Agricultural Research and Extension	JO
8	POTSDAM INSTITUT FUER KLIMAFOLGENFORSCHUNG	DE
9	INSTITUT DE RECHERCHE POUR LE DEVELOPPEMENT	FR
10	Environment & Climate Research Institute	EG
11	Institut National Agronomique de Tunisie	TN

Activity Code: ENV.2009.1.1.6.1 **Funding Scheme:** CP-FP **Duration (Months):** 36

Title: Methodology for Effective Decision-making on Impacts and AdaptaTION (MEDIATION)

Proposed EC Grant: 3.142.954 €

Abstract:

Assessment of climate change impacts, vulnerability and adaptation requires a combination of generic and context-specific knowledge. Currently, the availability of such knowledge in Europe is fragmented and incomplete. MEDIATION addresses this challenge through six activities: (i) analysis of the decision-making context; (ii) inventory, review and improvement of methods and metrics for impacts and vulnerability analysis; (iii) likewise for costing of impacts and adaptation options; (iv) development of an overarching integrated methodology; (v) development of a flexible, interactive common platform for knowledge sharing; and (vi) dissemination of this knowledge and training. The components of the project will be connected in an iterative fashion, using case studies which combine selected regional, sectoral and cross-sectoral characteristics and policy questions. The consortium combines eleven top European scientific institutions with a high reputation and long experience in impacts, vulnerability and adaptation research and assessment. They represent different regions in Europe with contrasting vulnerabilities, cover the wide array of disciplinary and interdisciplinary knowledge required to assess sectoral and cross-sectoral vulnerabilities, already participate in numerous related European and national research programmes, and have extensive expertise in science-policy interactions. The project will establish an Advisory Group of key international scientific experts and climate change policy makers to strengthen the scientific basis of the project as well as the policy relevance. In addition to scientific innovation, MEDIATION aims at supporting national and international policy development through targeted interactions, including the UNFCCC process (notably the Nairobi Work Programme), and the EU White Paper process, the latter by systematically addressing the components of the 3rd pillar of the EU Green Paper related to knowledge development and sharing.

Partners:

N	Partner Legal Name	Country
1	ALTERRA B.V.	NL
2	European Climate Forum	DE
3	INTERNATIONALES INSTITUT FUER ANGEWANDTE SYSTEMANALYSE	AT
4	European Communiny represented by the European Commission – Directorate General Joint Research Centre	BE
5	Potsdam Institut für Klimafolgenforschung	DE
6	The Regional Environmental Center for Central and Eastern Europe	HU
7	SEI OXFORD OFFICE LTD,	UK
8	Suomen ympäristökeskus	FI
9	UNIVERSITA' DEGLI STUDI DI FIRENZE	IT
10	Universidad Politécnica de Madrid	ES
11	WAGENINGEN UNIVERSITEIT	NL

Activity Code: ENV.2009.1.1.6.1 **Funding Scheme:** CP-FP **Duration (Months):** 42

Title: Climate change integrated assessment methodology for cross-sectoral adaptation and vulnerability in Europe

Proposed EC Grant: 3.149.677 €

Abstract:

CLIMSAVE will develop and apply an integrated methodology for stakeholder-led, climate change impact and vulnerability assessment that explicitly evaluates regional and continental scale adaptation options, and cross-sectoral interactions between the key sectors driving landscape change in Europe (agriculture, forests, biodiversity, coasts/floodplains, water resources, tourism, urban development and transport). A range of sectoral meta-models will be linked within a common assessment platform that is user-friendly, interactive and web-based to allow the rapid reproduction of climate change impacts by stakeholders themselves. The meta-models will be derived from detailed state-of-the-art models which represent the latest results on impacts of, and vulnerability to, climate change and which are appropriate for multi-scale spatially explicit impact studies. Indicator metrics, which translate the outputs from the integrated models into ecosystem services outcomes, will create a standardised approach across sectors ensuring comparability in quantifying impacts and vulnerability. The integrated assessment platform will use these metrics to identify hotspots of climate change vulnerability and provide the ability to assess adaptation strategies for reducing these vulnerabilities, in terms of their cost-effectiveness and cross-sectoral benefits and conflicts. Methods for reducing uncertainties and increasing the transparency of model and scenario assumptions will be implemented to inform the development of robust policy responses. A series of professionally facilitated workshops will identify stakeholder needs and test an innovative methodology for participatory scenario development specifically geared towards interactive climate change impact and adaptation assessment. Two sets of three workshops at two levels (European and regional) will ensure that the CLIMSAVE methodologies work at different scales and provide for continuity of engagement and mutual learning.

Partners:

N	Partner Legal Name	Country
1	THE CHANCELLOR, MASTERS AND SCHOLARS OF THE UNIVERSITY OF OXFORD	UK
2	Fundatia pentru Tehnologia Informatiei Aplicata in Mediu, Agricultura si Schimbari Globale	RO
3	Prospex bvba	BE
4	ESSRG Kft.	HU
5	CRANFIELD UNIVERSITY	UK
6	CENTRO DE INVESTIGACION ECOLOGICA YAPLICACIONES FORESTALES CONSORCIO	ES
7	UNIVERSITAET KASSEL	DE
8	MENDELOVA ZEMEDELSKA A LESNICKA UNIVERZITA V BRNO	CZ
9	University of the Aegean-Research Unit	EL
10	Dr Robert TINCH	BE
11	SERI - NACHHALTIGKEITSFORSCHUNGS UND -KOMMUNIKATIONS GmbH	AT
12	THE UNIVERSITY OF EDINBURGH*	UK
13	LUNDS UNIVERSITET	SE
14	AARHUS UNIVERSITET	DK
15	WAGENINGEN UNIVERSITEIT	NL
16	UNIVERSITY OF SOUTHAMPTON	UK
17	Institute of Environment and Sustainable Development in Agriculture, Chinese Academy of Agricultural Sciences	CN
18	University of the Sunshine Coast	AU
19	Victoria University Centre for Strategic Economic Studies	AU
20	National Center for Atmospheric Research	US

Activity Code: ENV.2009.1.1.6.2 **Funding Scheme:** CP-FP **Duration (Months):** 36

Title: European responses to climate change: deep emissions reductions and mainstreaming of mitigation and adaptation

Proposed EC Grant: 3.149.708 €

Abstract:

EU action on climate change is now focused on accelerating mitigation efforts, while seeking to reduce risks associated with climate change impacts. To achieve the multiple goals of cutting greenhouse gas emissions, reducing vulnerability to climate impacts, and building mitigative and adaptive capacities, climate action needs to be mainstreamed across all EU policy sectors. As the scale of European policy grows, mitigation and adaptation need increasingly to be integrated. These policies have strong international dimensions. The RESPONSES project addresses EU policy challenges by: developing new global low emissions scenarios, placing EU efforts in a global context; building an approach for assessing EU policies against mitigation and adaptation objectives and for developing alternative policy options; applying this framework in five EU policy sectors (water and agriculture, biodiversity, regional development/infrastructure, health and energy), linked by a set of cross-sectoral integrative activities; and synthesizing the results to new policy strategies. The main outputs of the project will be: a set of global low emission scenarios, differentiated by key countries; options and strategies for integrating mitigation and resilience to climate impacts into EU policies; a validated strategic climate assessment approach. The RESPONSES consortium brings together seven leading European research institutes working on climate change scenarios, modelling, analysis and policy, combining the necessary disciplinary and sectoral expertise. Chinese, Indian and US partners and associates will also participate in the project. The consortium builds on partners' experience in other EU and national projects, including the ADAM project, and will foster close relationships with policymakers. Research outputs will be of direct relevance to the IPCC and to post-2012 international negotiations, as well as supporting implementation of the forthcoming EU White Paper on Adaptation.

Partners:

N	Partner Legal Name	Country
1	VERENIGING VOOR CHRISTELIJK HOGER ONDERWIJS WETENSCHAPPELIJK ONDERZOEK EN PATIENTENZORG	NL
2	UNIVERSITY OF EAST ANGLIA	UK
3	INTERNATIONALES INSTITUT FUER ANGEWANDTE SYSTEMANALYSE	AT
4	RIJKSINSTITUUT VOOR VOLKSGEZONDHEID EN MILIEU	NL
5	FRAUNHOFER-GESELLSCHAFT ZUR FOERDERUNG DER ANGEWANDTEN FORSCHUNG E.V	DE
6	COMMISSION OF THE EUROPEAN COMMUNITIES - DIRECTORATE GENERAL JOINT RESEARCH CENTRE - JRC	BE
7	CONSEJO SUPERIOR DE INVESTIGACIONES CIENTIFICAS	ES
8	Institute of Policy and Management (IPM), Chinese Academy of Sciences	CN
9	The Energy and Resources Institute	IN

Activity Code: ENV.2009.1.2.1.1 **Funding Scheme:** CP-FP **Duration (Months):** 36

Title: Impact of climate change on the fate, transport and risk management of viral pathogens in water

Proposed EC Grant: 2.423.073 €

Abstract:

The use of hydrological models to determine the effects of climate change on the variation in viral flux, and therefore in risk associated with viral disease comprises a novel approach to the management of water-related disease. Tools developed in previous EU Projects will be used to conduct case studies on four selected sites (in Sweden, Spain, Hungary and Brazil) vulnerable to climate change (principally rainfall events), and the empirical baseline data accrued will be used in mathematical models constructed to estimate changes in exposure under defined conditions. Exposure levels will then be used to estimate risk of disease associated with such changes. Tools will include novel methods for processing of sewage, effluent and water samples, for quantitative detection of the target viruses, and for the determination of the source (human or animal) of viral pollution. Models will be adapted from existing epidemiological models for viral disease in the community, or will be generated de novo as required. Bacterial faecal indicator analysis will permit the determination of relationships between virus levels and water quality standards, and also between changes in virus concentration in water and risk to public health activities, such as bathing in polluted water or consumption of shellfish.The use of hydrological models to determine the effects of climate change on the variation in viral flux, and therefore in risk associated with viral disease comprises a novel approach to the management of water-related disease. Tools developed in previous EU Projects will be used to conduct case studies on four selected sites (in Sweden, Spain, Hungary and Brazil) vulnerable to climate change (principally changes in the timing and magnitude of rainfall events), and the empirical baseline data accrued will be used in mathematical models constructed to estimate changes in exposure under defined conditions. Exposure levels will then be used to estimate risk of disease associat

Partners:

N	Partner Legal Name	Country
1	ABERYSTWYTH UNIVERSITY	UK
2	UNIVERSITAT DE BARCELONA	ES
3	Velindre National Health Service Trust	UK
4	UNIVERSITY OF PATRAS	EL
5	UMEA UNIVERSITET	SE
6	Fundação Oswaldo Cruz (Fiocruz) - Instituto Oswaldo Cruz (IOC)	BR
7	ORSZAGOS KORNYEZETEGESZSEGUGYI INTEZET	HU
8	Fundacio Privada Institut Catala de Ciencias del Clima	ES
9	Centers for Disease Control and Prevention	US

Activity Code: ENV.2009.1.2.1.2 **Funding Scheme:** CP-SICA **Duration (Months):** 36

Title: Quantifying Weather and Climate Impacts on Health in Developing Countries

Proposed EC Grant: 3.499.403 €

Abstract:

One of the most dramatic and immediate impacts of climate variation is that on disease, especially the vector-borne diseases that disproportionally affect the poorest people in Africa. Although we can clearly see that, for example, an El Nino event triggers Rift Valley Fever epidemics, we remain poor at understanding why particular areas are vulnerable and how this will change in coming decades, since climate change is likely to cause entirely new global disease distributions. This applies to most vector borne disease. At the same time, we do not know currently the limit of predictability of the specific climate drivers for vector-borne disease using state-of-the-art seasonal forecast models, and how best to use these to produce skilful infection-rate predictions on seasonal timescales. The QWeCI project thus aims to understand at a more fundamental level the climate drivers of the vector-borne diseases of malaria, Rift Valley Fever, and certain tick-borne diseases, which all have major human and livestock health and economic implications in Africa, in order to assist with their short-term management and make projections of their future likely impacts. QWeCI will develop and test the methods and technology required for an integrated decision support framework for health impacts of climate and weather. Uniquely, QWeCI will bring together the best in world integrated weather/climate forecasting systems with heath impacts modelling and climate change research groups in order to build an end-to-end seamless integration of climate and weather information for the quantification and prediction of climate and weather on health impacts in Africa.

Partners:

N	Partner Legal Name	Country
1	THE UNIVERSITY OF LIVERPOOL	UK
2	CENTRE DE SUIVI ECOLGIQUE	SN
3	CONSEJO SUPERIOR DE INVESTIGACIONES CIENTIFICAS	ES
4	EUROPEAN CENTRE FOR MEDIUM-RANGE WEATHER FORECASTS.	UK
5	Fundació Privada Institut Català de Ciències del Clima	ES
6	THE ABDUS SALAM INTERNATIONAL CENTRE FOR THEORETICAL PHYSICS	IT
7	International Livestock Research Institute	KE
8	Institut Pasteur de Dakar	SN
9	Kwame Nkrumah University of Science and Technology (KNUST)	GH
10	Universite Cheikh Anta Diop	SN
11	University of Malawi (Polytechnic & College of Medicine)	MW
12	UNIVERSITAET ZU KOELN	DE
13	UNIVERSITY OF PRETORIA	ZA

Activity Code: ENV.2009.1.2.2.1 **Funding Scheme:** CP-IP **Duration (Months):** 48

Title: Transport related Air Pollution and Health impacts – Integrated Methodologies for Assessing Particulate Matter

Proposed EC Grant: 6.915.744 €

Abstract:

TRANSPHORM brings together leading air quality and health researchers and users to improve the knowledge of transport related airborne particulate matter (PM) and its impact on human health and to develop and implement assessment tools for scales ranging from city to Europe. Over four years, TRANSPHORM will aim to develop and implement an integrated methodology to assess the health impacts of PM air pollution covering the whole chain from emissions to disease burden. The objectives will be: (i) To improve our understanding of transport sources of size-resolved and speciated PM air pollution including non-exhaust, shipping, aviation and railways; (ii) To improved emission factors of ultrafine particle number (PN0.1) and mass fractions of PM1, PM2.5 and PM10 for key transport sources; (iii) To conduct targeted measurements in Rotterdam, Helsinki and Thessaloniki for source apportionment, exposure assessment and model evaluation; (iv) To quantify exposure to airborne PM in urban environments resulting from traffic, road, shipping, rail and aviation; (v) To improve and integrate air quality dispersion and exposure models for urban and regional scales including long-range transport; (vi) To develop new concentration-response (CRF) linking long and short-term ambient residential exposure to size-resolved and speciated PM with key health endpoints; (vii) To develop and implement integrated assessment tool to investigate and analyse the whole chain of processes for selected cities and Europe; (viii) To incorporate micro-environmental PM concentrations, time-activity patterns, and estimates of internal dose into the health impact assessment; (ix) To conduct integrated health assessment of selected European cities; (x) To design and implement mitigation and adaptation strategies for European and international policy refinement and development; (xi) To exploit the results of TRANSPHORM through global dissemination and interactions with stakeholders.

Partners:

N	Partner Legal Name	Country
1	THE UNIVERSITY OF HERTFORDSHIRE HIGHER EDUCATION CORPORATION	UK
2	NEDERLANDSE ORGANISATIE VOOR TOEGEPAST NATUURWETENSCHAPPELIJK ONDERZOEK - TNO	NL
3	UNIVERSITEIT UTRECHT	NL
4	NORSK INSTITUTT FOR LUFTFORSKNING	NO
5	ILMATIETEEN LAITOS	FI
6	DEUTSCHES ZENTRUM FUER LUFT - UND RAUMFAHRT EV	DE
7	TRANSPORT & MOBILITY LEUVEN NV	BE
8	ARISTOTELIO PANEPISTIMIO THESSALONIKIS	EL
9	COMMISSION OF THE EUROPEAN COMMUNITIES - DIRECTORATE GENERAL JOINT RESEARCH CENTRE - JRC	BE
10	INSTITUTE OF OCCUPATIONAL MEDICINE	UK
11	IVL SVENSKA MILJOEINSTITUTET AB	SE
12	KANSANTERVEYSLAITOS	FI
13	METEOROLOGISK INSTITUTT	NO
14	HELMHOLTZ ZENTRUM MUENCHEN DEUTSCHES FORSCHUNGSZENTRUM FUER GESUNDHEIT UND UMWELT GMBH	DE
15	KAROLINSKA INSTITUTET	SE
16	DANMARKS METEOROLOGISKE INSTITUT	DK
17	IMPERIAL COLLEGE OF SCIENCE, TECHNOLOGY AND MEDICINE	UK
18	FUNDACIO CENTRE DE RECERCA EN EPIDEMIOLOGIA AMBIENTAL - CREAL	ES
19	INSTITUTE OF PHYSICS	LT
20	UNIVERSITAET STUTTGART	DE
21	URM - Útvar rozvoje hl.mesta Prahy	CZ

Activity Code: ENV.2009.1.2.2.2 **Funding Scheme:** CP-FP **Duration (Months):** 36

Title: Sound Exposure and Risk Assessment of Wireless Network Devices

Proposed EC Grant: 2.989.605 €

Abstract:

Public exposure to electromagnetic fields in the radio frequency spectrum has increased dramatically in the last two decades. Although research has mainly focused on the exposure and health risk evaluations of cellular networks and mobile phones in recent years, studies on the effects of the pervasive and prolonged EMF exposure on human health due to the exponential growth of wireless network device usage in homes, offices and schools are lacking. The proposed project SEAWIND aims (1) to provide a comprehensive assessment of the incident field exposure in typical living scenarios such as in homes, offices and classrooms by installed wireless local area networks (WLAN or WiFi) or wireless metropolitan area networks (WMAN or WiMAX), body-mounted and body-worn wireless personal area networks (WPAN) and WLAN devices, and specific wireless applications in industry, e.g., novel RFID logistic applications; (2) to numerically determine the induced fields in the human body using a set of models representing the human population; and (3) to screen potential biological sensitivities at the molecular, developmental and functional levels in cells. The necessary technology will also be developed to accurately assess the exposures for device compliance testing and to accurately assess in situ exposures. The comprehensive risk assessment will be based on the findings of this project, addressing the specificity of the exposure of wireless networks combined with the current body of literature on biological interactions of EMF covering the entire radio-frequency spectrum. A comparison to other exposures such as cellular mobile devices, base stations, TV, Radio, etc will also be included.

Partners:

N	Partner Legal Name	Country
1	Foundation for Research on Information Technologies in Society	CH
2	INTERDISCIPLINARY INSTITUTE FOR BROADBAND TECHNOLOGY	BE
3	AALBORG UNIVERSITET	DK
4	ARISTOTELIO PANEPISTIMIO THESSALONIKIS	EL
5	FRAUNHOFER-GESELLSCHAFT ZUR FOERDERUNG DER ANGEWANDTEN FORSCHUNG E.V	DE
6	UNIVERSITAET BASEL	CH
7	DIALOGIK GEMEINNUETZIGE GESELLSCHAFT FUER KOMMUNIKATIONS- UND KOOPERATIONSFORSCHUNG mbH	DE
8	Schmid & Partner Engineering AG	CH

Activity Code: ENV.2009.1.2.3.1 **Funding Scheme:** CSA-CA **Duration (Months):** 36

Title: European coordination action on human biomonitoring

Proposed EC Grant: 3.999.000 €

Abstract:

This proposal has been elaborated by a consortium of 35 partners coming from 27 European countries and including scientists, government institutions and authorities, NGOs and industry. The main goal is to develop a coherent approach to HBM in Europe as requested by ACTION 3 of the EU Environment and Health Action Plan through coordination of ongoing and planned HBM activities. The project will exploit existing and planned HBM projects and programmes of work and capabilities in Europe. The consortium will investigate what is needed to advance and improve comparability of HBM data across Europe. Work prepared under DG Research and DG Environment activities dealing with development, validation and use of novel biomarkers including non-invasive markers and effect markers will be exploited. Through close collaboration with similar initiatives in the field of Health - such as the EU Health Examination Survey - appropriate economies and efficiencies will be assessed. Key issues such as Ethics and human Biobanks will be addressed. The project will deliver a number of key outputs including: 1. Tested Proofs of Concept and/or Demonstration project assessing the feasibility of a coordinated approach, including strategies for data interpretation & integration with environmental and health data. 2. A rationale and strategy for communication and dissemination of information, results and key messages to all stakeholders from the public to policy makers 3. Training and capacity building will aim to promote knowledge and experience exchange and development in the field of HBM within Europe A common understanding within all parties involved on the potential of HMB in supporting and evaluating current/future policy making (including e.g. REACH) and for environmental health awareness raising will be promoted This project aim is to significantly advance the process towards a fully operational, continuous, sustainable and scientifically sound EU HBM programme.

Partners:

N	Partner Legal Name	Country
1	BiPRO GmbH	DE
2	KATHOLIEKE UNIVERSITEIT LEUVEN	BE
3	UMWELTBUNDESAMT	DE
4	INSTITUTO DE SALUD CARLOS III	ES
5	VLAAMSE INSTELLING VOOR TECHNOLOGISCH ONDERZOEK N.V.	BE
6	HEALTH PROTECTION AGENCY HPA	UK
7	Institut de veille sanitaire	FR
8	Københavns Universitet	DK
9	COMMISSION OF THE EUROPEAN COMMUNITIES - DIRECTORATE GENERAL JOINT RESEARCH CENTRE - JRC	BE
10	INSTITUT JOZEF STEFAN	SI
11	BGFA - Research Institute of Occupational Medicine, German Social Accident Insurance, Ruhr-University Bochum	DE
12	Environmental Health Sciences International	NL
13	Federale Overheidsdienst Volksgezondheid, Veiligheid van de Voedselketen en Leefmilieu	BE
14	UMWELTBUNDESAMT GMBH	AT
15	CENTRUL DE MEDIU SI SANATATE (ENVIRONMENTAL HEALTH CENTER)	RO
16	VYTAUTO DIDZIOJO UNIVERSITETAS	LT
17	Institute for Medical Research and Occupational Health	HR
18	Laboratoire National de Santé	LU
19	RIJKSINSTITUUT VOOR VOLKSGEZONDHEID EN MILIEU	NL
20	ETHNIKO IDRYMA EREVNON	EL
21	STATE GENERAL LABORATORY	CY
22	Associação para Investigação e Desenvolvimento da Faculdade de Medicina / Instituto de Medicina Preventiva	PT
23	KAROLINSKA INSTITUTET	SE
24	Cefic	BE
25	NASJONALT FOLKEHELSEINSTITUTT	NO
26	Tervise Arengu Instituut	EE

27	ISTITUTO SUPERIORE DI SANITA	IT
28	National Institute of Environmental Health	HU
29	Swiss Office of Public Health	CH
30	Urad verejného zdravotníctva SR	SK
31	INSTYTUT MEDYCYNY PRACY NOFERA	PL
32	STATNI ZDRAVOTNI USTAV	CZ
33	Health Services Executive	IE
34	Health and Environment Alliance	BE
35	National Institute for Health and Welfare - Terveyden ja hyvinvoinnin laitos	FI

Activity Code: ENV.2009.1.3.1.1 **Funding Scheme:** CP-IP **Duration (Months):** 48

Title: Forest fires under climate, social and economic changes in Europe, the Mediterranean and other fire-affected areas of the world

Proposed EC Grant: 6.178.337 €

Abstract:

Fire regimes result from interactions between climate, land-use and land-cover (LULC), and socioeconomic factors, among other. These changed during the last decades, particularly around the Mediterranean. Our understanding of how they affected fire regime in the past is limited. During this century temperatures, drought and heat waves will very likely increase, and rainfall decrease. These and further socioeconomic change will affect LULC. Additional areas will be abandoned due to being unsuitable for agriculture or other uses. Fire danger and fire hazard are very likely to increase, affecting fire regimes. FUME will learn from the past to understand future impacts. Mod. 1 we will study how LULC and socioeconomics changed and how climate and weather affected fire in dynamically changing landscapes. Fires will be mapped throughout Europe to determine hazard burning functions for LULC types. Since climate has changed, an attempt to attribute (sensu IPCC) fire regime change to climate, differentiating it from socioeconomic change, will be made. Mod. 2 will produce scenarios of change (climate, including extremes, land-use land-cover, socioeconomics, vegetation) for various emissions pathways and three time-slices during this century. With these and results from Mod.1, models and field experiments projected impacts on fire-regime and vegetation vulnerabilities will be calculated, including climate extremes (drought, heat-waves). Mod. 3 will investigate adaptation options in fire- and land-management, including restoration. Fire prevention and fire fighting protocols will be tested/developed under the new conditions to mitigating fire risks. A company managing fire will be a key player. Costs and policy impacts of changes in fire will be studied. Research will focus on old and new fire areas, the rural interface, whole Europe and the Mediterranean, including all Mediterranean countries of the world. Users will be involved in training and other activities.

Partners:

N	Partner Legal Name	Country
1	UNIVERSIDAD DE CASTILLA - LA MANCHA	ES
2	FUNDACION CENTRO DE ESTUDIOS AMBIENTALES DEL MEDITERRANEO	ES
3	UNIVERSITA DEGLI STUDI DELLA TUSCIA	IT
4	CENTRE NATIONAL DE LA RECHERCHE SCIENTIFIQUE (CNRS)	FR
5	POTSDAM INSTITUT FUER KLIMAFOLGENFORSCHUNG	DE
6	FUNDACAO DA FACULDADE DE CIENCIAS DA UNIVERSIDADE DE LISBOA	PT
7	COMMISSION OF THE EUROPEAN COMMUNITIES - DIRECTORATE GENERAL JOINT RESEARCH CENTRE - JRC	BE
8	CENTRO EURO-MEDITERRANEO PER I CAMBIAMENTI CLIMATICI SCARL	IT
9	UNIVERSITA DEGLI STUDI DI SASSARI	IT
10	CENTRE NATIONAL DU MACHINISME AGRICOLE, DU GENIE RURAL, DES EAUX ET DES FORETS	FR
11	NATIONAL AND KAPODISTRIAN UNIVERSITY OF ATHENS	EL
12	PANEPISTIMIO IOANNINON	EL
13	LUNDS UNIVERSITET	SE
14	UNIVERSIDAD DE CANTABRIA	ES
15	INSTITUT DE RECHERCHE POUR LE DEVELOPPEMENT	FR
16	ILMATIETEEN LAITOS	FI
17	CONSIGLIO NAZIONALE DELLE RICERCHE	IT
18	Mediterranean Agronomic Institute of Zaragoza / International Centre for Advanced Mediterranean Agronomic Studies	ES
19	CONSEJO SUPERIOR DE INVESTIGACIONES CIENTIFICAS	ES
20	TECNOLOGÍAS Y SERVICIOS AGRARIOS, S.A.	ES
21	Instituto Superior de Agronomia	PT
22	CENTRE FOR EUROPEAN POLICY STUDIES	BE
23	Université F. Abbas de Sétif	DZ
24	Institut National de Recherches en Génie Rural, Eaux et Forêts	TN
25	National Meteorological Service Morocco	MA
26	Southwest Anatolia Forestry Research	TR

27	South African National Biodiversity Institute	ZA
28	US FOREST SERVICE - PACIFIC SOUTHWEST RESEARCH STATION	US
29	Arizona Board of Regents for and on behalf of Northern Arizona University	US
30	The University of Arizona	US
31	US Geological Service, Western Ecological Research Center	US
32	University of Wollongong	AU
33	Universidad Austral de Chile	CL

Activity Code: ENV.2009.1.3.2.1 **Funding Scheme:** CSA-CA **Duration (Months):** 24

Title: Costs of Natural Hazards

Proposed EC Grant: 899.487 €

Abstract:

Cost assessments of damages of natural hazards supply crucial information to policy development in the fields of natural hazard management and adaptation planning to climate change. There exists significant diversity in methodological approaches and terminology in cost assessments of different natural hazards and in different impacted sectors. ConHaz provides insight into cost assessment methods, which is needed for an integrated planning and overall budgeting, and to prioritise policies. To strengthen the role of cost assessments in natural hazard management and adaptation planning, existing approaches and best practices as well as knowledge gaps are identified. ConHaz has three key objectives. The first objective is to compile state-of-the-art methods and terminology as used in European case studies, taking a comprehensive perspective on the costs of natural that includes droughts, floods, storms, and alpine hazards. ConHaz also considers various impacted economic sectors such as housing, industry and transport, and non-economic sectors such as health and nature. It will consider single and multi-hazards, leading to direct, indirect and intangible costs. ConHaz moreover looks at costs and benefits of risk-prevention and emergency response policies. The second objective of ConHaz is to evaluate the compiled methods. The analysis addresses theoretical issues, such as the principal assumptions that underlie economic valuation of damage types, as well as practical issues, such as the qualifications needed for data collection and quality assurance. ConHaz also looks at the reliability of the end result by considering the accuracy of cost predictions and best-practice-methods of validation. A central issue of the evaluation is to compare available methods with end-user needs. The third objective of ConHaz is to synthesize the results and give recommendations according to current best practice as well as to resulting research needs.

Partners:

N	Partner Legal Name	Country
1	HELMHOLTZ-ZENTRUM FUER UMWELTFORSCHUNG GMBH - UFZ	DE
2	UNIVERSITAET INNSBRUCK	AT
3	Société de mathématiques appliquées aux sciences humaines (SMASH)	FR
4	Middlesex University Higher Education Corporation	UK
5	Helmholtz-Zentrum Potsdam Deutsches GeoForschungsZentrum	DE
6	UNIVERSITA DEGLI STUDI DI FERRARA	IT
7	UNIVERSITAT AUTONOMA DE BARCELONA	ES
8	VERENIGING VOOR CHRISTELIJK HOGER ONDERWIJS WETENSCHAPPELIJK ONDERZOEK EN PATIENTENZORG	NL

Activity Code: ENV.2009.1.3.2.2 **Funding Scheme:** CP-FP **Duration (Months):** 36

Title: Systemic Seismic Vulnerability and Risk Analysis for Buildings, Lifeline Networks and Infrastructures Safety Gain

Proposed EC Grant: 3.500.000 €

Abstract:

SYNER-G is research project which has the following main goals: (1) To elaborate appropriate, in the European context, fragility relationships for the vulnerability analysis and loss estimation of all elements at risk, for buildings, building aggregates, utility networks (water, waste water, energy, gas), transportation systems (road, railways, harbors) as well as complex medical care facilities (hospitals) and fire-fighting systems. (2) To develop social and economic vulnerability relationships for quantifying the impact of earthquakes. (3) To develop a unified methodology, and tools, for systemic vulnerability assessment accounting for all components (structural and socio-economic) exposed to seismic hazard, considering interdependencies within a system unit and between systems, in order to capture the increased loss impact due to the interdependencies and the interactions among systems and systems of systems. The methodology and the proposed fragility functions will be validated in selected sites (urban scale) and systems and it will implemented in an appropriate open source and unrestricted access software tool. Guidelines will be prepared and the results and outputs will be disseminated in Europe and world wide with appropriate dissemination schemes. SYNER-G is integrated across different disciplines with an internationally recognized partnership from Europe, USA and Japan. The objectives and the deliverables are focused to the needs of the administration and local authorities, which are responsible for the management of seismic risk, as well as the needs of the construction and insurance industry. URL: http://www.vce.at/SYNER-G

Partners:

N	Partner Legal Name	Country
1	ARISTOTELIO PANEPISTIMIO THESSALONIKIS	EL
2	VCE Holding GmbH	AT
3	BUREAU DE RECHERCHES GEOLOGIQUES ET MINIERES	FR
4	COMMISSION OF THE EUROPEAN COMMUNITIES - DIRECTORATE GENERAL JOINT RESEARCH CENTRE - JRC	BE
5	STIFTELSEN NORGES GEOTEKNISKEINSTITUTT	NO
6	UNIVERSITA DEGLI STUDI DI PAVIA	IT
7	UNIVERSITA DEGLI STUDI DI ROMA LA SAPIENZA	IT
8	MIDDLE EAST TECHNICAL UNIVERSITY	TR
9	AMRA - ANALISI E MONITORAGGIO DEL R ISCHIO AMBIENTALE SCARL	IT
10	UNIVERSITAET KARLSRUHE (TECHNISCHE HOCHSCHULE)	DE
11	UNIVERSITY OF PATRAS	EL
12	Willis Limited	UK
13	The Board of Trustees of the University of Illinois	US
14	Kobe University	JP

Activity Code: ENV.2009.1.3.3.1 **Funding Scheme:** CP-SICA **Duration (Months):** 48

Title: Collaborative research on flood resilience in urban areas

Proposed EC Grant: 3.490.198 €

Abstract:

Collaborative research on flood resilience in urban areas (CORFU) is an interdisciplinary international project that will look at advanced and novel strategies and provide adequate measures for improved flood management in cities. The differences in urban flooding problems in Asia and in Europe range from levels of economic development, infrastructure age, social systems and decision making processes, to prevailing drainage methods, seasonality of rainfall patterns and climate change trends. Our vision is that this project will use these differences to create synergies that will bring new quality to flood management strategies globally. Through a 4-year collaborative research programme, the latest technological advances will be cross-fertilised with traditional and emerging approaches to living with floods. The overall aim of CORFU is to enable European and Asian institutions to learn from each other through joint investigation, development, implementation and dissemination of strategies that will enable more scientifically sound management of the consequences of urban flooding in the future. Flood impacts in urban areas – potential deaths, damage to infrastructure and health problems and consequent effects on individuals and on communities – and possible responses will be assessed by envisaging different scenarios of relevant drivers: urban development, socio-economic trends and climate changes. The cost-effectiveness of resilience measures and integrative and adaptable flood management plans for these scenarios will be quantified. CORFU is structured in six Work Packages. WP1 will look at drivers that impact on urban flooding. WP2 will enhance methodologies and tools for flood hazard assessment based on urban flood modelling. WP3 will improve, extend and integrate modern methods for flood impact assessment. WP4 will aim to assess and enhance existing flood risk management strategies. WP5 will disseminate the outputs. WP6 will co-ordinate the project.

Partners:

N	Partner Legal Name	Country
1	THE UNIVERSITY OF EXETER	UK
2	DHI INSTITUT FOR VAND OG MILJO FORENING	DK
3	TECHNISCHE UNIVERSITAET HAMBURG-HARBURG	DE
4	Université de Nice-Sophia Antipolis	FR
5	INDIAN INSTITUTE OF TECHNOLOGY BOMBAY	IN
6	AREP VILLE	FR
7	Institute of Water Modelling	BD
8	Beijing University of Technology	CN
9	China Academy of Urban Planning and Design	CN
10	beijing municipal institute of city planning and design	CN
11	CETaqua, Centro Tecnológico del Agua, Fundación privada	ES
12	Hydrometeorological Innovative Solutions S.L.	ES
13	CRANFIELD UNIVERSITY	UK
14	Dura Vermeer Groep NV	NL
15	Hamburgisches WeltWirtschaftsInstitut gemeinnützige GmbH (HWWI)	DE

Activity Code: ENV.2009.2.1.2.1 **Funding Scheme:** CP-IP **Duration (Months):** 48

Title: Adaptive Strategies to Mitigate the Impacts of Climate Change on European Freshwater Ecosystems

Proposed EC Grant: 6.998.419 €

Abstract:

Understanding how freshwater ecosystems will respond to future climate change is essential for the development of policies and implementation strategies needed to protect aquatic and riparian ecosystems. The future status of freshwater ecosystems is however, also dependent on changes in land-use, pollution loading and water demand. In addition the measures that need to be taken to restore freshwater ecosystems to good ecological health or to sustain priority species as required by EU Directives need to be designed either to adapt to future climate change or to mitigate the effects of climate change in the context of changing land-use. Generating the scientific understanding that enables such measures to be implemented successfully is the principal focus of REFRESH. It is concerned with the development of a system that will enable water managers to design cost-effective restoration programmes for freshwater ecosystems at the local and catchment scales that account for the expected future impacts of climate change and land-use change in the context of the WFD and Habitats Directive. At its centre is a process-based evaluation of the specific adaptive measures that might be taken to minimise the consequences of climate change on freshwater quantity, quality and biodiversity. The focus is on three principal climate-related and interacting pressures, increasing temperature, changes in water levels and flow regimes and excess nutrients, primarily with respect to lowland rivers, lakes and wetlands because these often pose the most difficult problems in meeting both the requirements of the WFD and Habitats Directive. REFRESH will advance our fundamental and applied science in 5 key areas: i) understanding how the functioning of freshwater ecosystems is affected by climate change; ii) new indicators of functional response and tools for assessing vulnerability; iii) modelling ecological processes; iv) integrated modelling; and v) adaptive management.

Partners:

N	Partner Legal Name	Country
1	UNIVERSITY COLLEGE LONDON	UK
2	AARHUS UNIVERSITET	DK
3	THE UNIVERSITY OF READING	UK
4	SUOMEN YMPARISTOKESKUS	FI
5	UNIVERSITAET DUISBURG-ESSEN	DE
6	ALTERRA B.V.	NL
7	NATURAL ENVIRONMENT RESEARCH COUNCIL	UK
8	SVERIGES LANTBRUKSUNIVERSITET	SE
9	THE MACAULAY LAND USE RESEARCH INSTITUTE	UK
10	UNIVERSITEIT UTRECHT	NL
11	CONSEJO SUPERIOR DE INVESTIGACIONES CIENTIFICAS	ES
12	MIDDLE EAST TECHNICAL UNIVERSITY	TR
13	FORSCHUNGSVERBUND BERLIN E.V.	DE
14	COMMISSION OF THE EUROPEAN COMMUNITIES - DIRECTORATE GENERAL JOINT RESEARCH CENTRE - JRC	BE
15	STICHTING DELTARES	NL
16	UNIVERSITAET FUER BODENKULTUR WIEN	AT
17	Biologicke centrum AV CR, v. v. i.	CZ
18	EESTI MAAULIKOOLESTONIAN UNIVERSITY OF LIFE SCIENCES	EE
19	UNIVERSITAT DE BARCELONA	ES
20	UNIVERSITY OF PATRAS	EL
21	CENTRE NATIONAL DE LA RECHERCHE SCIENTIFIQUE (CNRS)	FR
22	NORWEGIAN INSTITUTE FOR AGRICULTURAL AND ENVIRONMENTAL RESEARCH - BIOFORSK	NO
23	NORSK INSTITUTT FOR VANNFORSKNING	NO
24	Trent University	CA
25	Griffith University	AU

Activity Code: ENV.2009.2.1.3.1 **Funding Scheme:** CP-IP **Duration (Months):** 60

Title: Soil Transformations in European Catchments

Proposed EC Grant: 6.974.573 €

Abstract:

SoilTrEC proposes to develop an integrated model of soil processes that describes key soil functions. These functions are defined in the EC Soil Thematic Strategy as essential ecosystem services for the well-being and economic success of the EU. The key science advances are to develop, from first-principles, computational models that integrate soil erosion, solute transport, carbon dynamics and food web dynamics within an open-source modelling framework. This framework will provide the platform, together with existing GIS capacity, for a prototype simulator at EU-scale to assess soil threats and evaluate approaches to mitigation. This physical-based modelling will be integrated with new advances in decision support developed from life cycle and economic assessment methodologies for natural resources. A key conceptual advance of this project is to quantify soil stocks, their formation, loss and functions within the context of the earth's Critical Zone. This encompasses the terrestrial environment from the top of the biosphere's tree canopy to the bedrock delineating the lower bounds of freshwater aquifers. SoilTrEC will link 4 EU field sites that describe key stages within the life cycle of soil formation, its productive use and degradation. Existing data sets will be augmented with targeted process studies in order to provide the data sets to validate the integrated model of soil processes. These process studies will be integrated with results from additional EU, USA and Chinese field sites to compare soil processes and rates as they vary with lithology, climate and land use. These sites and their teams will be integrated through shared results and an international research training programme into a global network of Critical Zone Observatories. This programme of research will engage very actively with stakeholders involved in the practical management of land, and will draw strongly on the advice and guidance of international leaders in soil sustainability.

Partners:

N	Partner Legal Name	Country
1	THE UNIVERSITY OF SHEFFIELD	UK
2	Institute of Soil Science "Nikola Poushkarov"	BG
3	TECHNICAL UNIVERSITY OF CRETE	EL
4	STICHTING DELTARES	NL
5	COMMISSION OF THE EUROPEAN COMMUNITIES - DIRECTORATE GENERAL JOINT RESEARCH CENTRE - JRC	BE
6	HASKOLI ISLANDS	IS
7	WAGENINGEN UNIVERSITEIT	NL
8	UNIVERSITAET FUER BODENKULTUR WIEN	AT
9	NATURAL ENVIRONMENT RESEARCH COUNCIL	UK
10	Eidgenössische Technische Hochschule Zürich	CH
11	CESKA GEOLOGICKA SLUZBA	CZ
12	INSTITUTE OF SOIL SCIENCE CHINESE ACADEMY OF SCIENCES	CN
13	The Pennsylvania State University	US
14	SVERIGES LANTBRUKSUNIVERSITET	SE
15	CENTRE NATIONAL DE LA RECHERCHE SCIENTIFIQUE (CNRS)	FR

Activity Code: ENV.2009.2.1.3.2 **Funding Scheme:** CP-SICA **Duration (Months):** 36

Title: Land and Ecosystem Degradation and Desertification: Assessing the Fit of Responses

Proposed EC Grant: 3.062.042 €

Abstract:

LEDDRA aims to advance the comprehensive study of the socio-environmental fit of responses to land and ecosystem degradation and desertification (LEDD) in various contexts. It adopts the ecosystem approach and an integrated methodology with continuous feedbacks between theory, methods and applications. It focuses on response assemblages (combinations of response types and prevailing environmental, socio-economic and institutional conditions that contribute to or detract from sustainable land management and societal welfare), the associated costs and benefits to diverse stakeholders, barriers to and opportunities for adoption, and knowledge transfer processes. Optimal response assemblages comprise coordinated, mutually supportive and complementary measures that preserve the ecological and the community resilience of affected areas. LEDDRA develops the theory of responses to LEDD, in general, and in cropland, grazing land and forests/shrubland, in particular, and the study of knowledge transfer for diverse stakeholder types. It negotiates the links between land degradation, ecosystem services decline and biodiversity change, the links between biophysical and human determinants, welfare impacts, and responses to drought (drought preparedness). It improves existing and develops new integrated methodologies for assessing the impacts and fit of various types of responses to LEDD and the socio-ecological vulnerability of affected regions, and for identifying response assemblages in different European and other cultural-institutional contexts drawing on applications in selected sites in EU and ICPC countries. It analyzes the policy context to offer recommendations for policy and land management actions at the international, EU and national levels. To better organize, show case, disseminate and add value to project results, a web-based information system will be developed to make findings accessible to a wide range of stakeholders with different levels of expertise.

Partners:

N	Partner Legal Name	Country
1	University of the Aegean-Research Unit	EL
2	AGRICULTURAL UNIVERSITY OF ATHENS	EL
3	3D - Environmental Change	NL
4	UNIVERSITY OF PLYMOUTH	UK
5	Osservatorio MEDES - Osservatorio Mediterraneo per lo studio delle Soluzioni dei Problemi Economici delle Aree a Rischio Desertificazione	IT
6	UNIVERSITA DEGLI STUDI DELLA BASILICATA	IT
7	ECOLOGIC - INSTITUT FUER INTERNATIONALE UND EUROPAEISCHE UMWELTPOLITIK gGmbh	DE
8	CONSEJO SUPERIOR DE INVESTIGACIONES CIENTIFICAS	ES
9	Changjiang River Scientific Research Institute	CN
10	INSTITUT AGRONOMIQUE ET VETERINAIRE HASSAN II	MA
11	UNIVERSITAT DE VALENCIA	ES

Activity Code: ENV.2009.2.1.4.1 **Funding Scheme:** CP-FP **Duration (Months):** 60

Title: Status and Trends of European Pollinators

Proposed EC Grant: 3.500.000 €

Abstract:

Pollinators form a key component of European biodiversity, and provide vital ecosystem services to crops and wild plants. There is growing evidence of declines in both wild and domesticated pollinators, and parallel declines in plants relying upon them. STEP will document the nature and extent of these declines, examine functional traits associated with particular risk, develop a Red list of endangered European pollinators and lay the groundwork for future pollinator monitoring programmes. We will also assess the relative importance of potential drivers of such change, including climate change, habitat loss and fragmentation, agrichemicals, pathogens, alien species, light pollution, and their interactions. We will measure the ecological and economic impacts of declining pollinator services and floral resources, including effects on wild plant populations, crop production and human nutrition. STEP will review existing and potential mitigation options, providing novel tests of their effectiveness across Europe. Our work will build upon on existing datasets and models, complemented by spatially-replicated campaigns of field research to fill gaps in current knowledge. We will integrate our findings in a policy-relevant framework, creating Evidence-based Decision Support tools. We will also establish communication links to a wide range of stakeholders across Europe and beyond, including policy makers, beekeepers, farmers, academics and the general public. Taken together, our research programme will make great steps towards improving our understanding of the nature, causes, consequences and potential mitigation of declines in pollinator services at local, national, continental and global scales.

Partners:

N	Partner Legal Name	Country
1	THE UNIVERSITY OF READING	UK
2	HELMHOLTZ-ZENTRUM FUER UMWELTFORSCHUNG GMBH - UFZ	DE
3	SVERIGES LANTBRUKSUNIVERSITET	SE
4	ALTERRA B.V.	NL
5	AARHUS UNIVERSITET	DK
6	UNIVERSITY OF LEEDS	UK
7	UNIVERSITAET BAYREUTH	DE
8	INSTITUT NATIONAL DE LA RECHERCHE AGRONOMIQUE	FR
9	EIDGENOSSISCHES VOLKSWIRTSCHAFTSDEPARTEMENT	CH
10	SUOMEN YMPARISTOKESKUS	FI
11	LUNDS UNIVERSITET	SE
12	CONSEJO SUPERIOR DE INVESTIGACIONES CIENTIFICAS	ES
13	TARTU ULIKOOL	EE
14	Pensoft Publishers Ltd	BG
15	UNIVERSITAET BERN	CH
16	University of Novi Sad Faculty of Sciences	RS
17	UNIVERSITE DE MONS-HAINAUT.	BE
18	UNIWERSYTET JAGIELLONSKI.	PL
19	Università di Pisa	IT
20	University of the Aegean-Research Unit	EL

Activity Code: ENV.2009.2.1.5.1 **Funding Scheme:** CP-SICA **Duration (Months):** 48

Title: SOLUTIONS for ENVIRONMENTAL CONTRASTS in COASTAL AREAS

Proposed EC Grant: 6.159.120 €

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:

N	Partner Legal Name	Country
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, Science and Technology Park	IN
9	Institute of Marine Environment and Resources	VN

Activity Code: ENV.2009.2.1.6.2 **Funding Scheme:** CSA-SA **Duration (Months):** 24

Title: Forest ecosystem genomics research: supporting Transatlantic Cooperation

Proposed EC Grant: 991.206 €

Abstract:

The main aim of FoResTTraC is to prepare future coordinated research plans, via a strategic research roadmap, between Europe and North America regarding adaptation of forest trees to climate changes, linking different disciplines: ecology, genetics, genomics and evolution. FoResTTraC brings together a critical mass of research expertise in these disciplines on both sides of the Atlantic with 6 leading European partners, 3 American and 2 Canadian partners. For the time being, large scale genomics projects have been conducted in "parallel" between North America and Europe, lacking in cooperative exchanges and interactions. The leading institutions coordinating these projects are partners of FoResTTraC to ensure that the current state–of–art research is represented in the project. FoResTTraC will deliver a mapping of current research capacity and state of the art research in forest ecosystem genomics, a validated research roadmap regarding adaptation to climate change, a set of joint science plans, a collection of genomic resources preparing future whole genome sequencing of ecologically and economically important tree species. All project outcomes will be validated during the project by a wide group of stakeholders from Europe and North America and will be disseminated widely via the project website and key dissemination.

Partners:

N	Partner Legal Name	Country
1	INSTITUT NATIONAL DE LA RECHERCHE AGRONOMIQUE	FR
2	AUSTRIAN RESEARCH CENTERS GMBH - ARC	AT
3	International Plant Genetic Resources Institute	IT
4	INRA TRANSFERT S.A.	FR
5	INSTITUTO NACIONAL DE INVESTIGACION Y TECNOLOGIA AGRARIA Y ALIMENTARIA	ES
6	North Carolina State University	US
7	Northern Arizona University	US
8	OULUN YLIOPISTO	FI
9	University of British Columbia	CA
10	Regents University of California at Davis	US
11	Université Laval	CA

Activity Code: ENV.2009.2.2.1.1 **Funding Scheme:** CP-IP **Duration (Months):** 42

Title: Options for Delivering Ecosystem-Based Marine Management

Proposed EC Grant: 6.500.000 €

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:

N	Partner Legal Name	Country
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	Institute of Marine Sciences - Middle East Technical University	TR
6	Scottish Agricultural College	UK
7	National Institute for Marine Research and Development "Grigore Antipa"	RO
8	Wageningen IMARES	NL
9	National Institute of Oceanography-Israel Oceanographic & Limnological Reasearch	IL
10	Sea Fisheries Institute	PL
11	University of Thessaly	EL
12	THE SECRETARY OF STATE FOR ENVIRONMENT, FOOD AND RURAL AFFAIRS	UK
13	Marine Law and Ocean Policy Research Services Limited	IE
14	WAGENINGEN UNIVERSITEIT	NL
15	Institute of Oceanology, Bulgarian Academy of Sciences	BG
16	SUOMEN YMPARISTOKESKUS	FI

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

Title: Towards an Integrated Marine and Maritime Science Community

Proposed EC Grant: 998.455 €

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:

N	Partner Legal Name	Country
1	International Council for the Exploration of the Sea	DK
2	EUCC - The Coastal 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.2009.2.2.1.4 **Funding Scheme:** CP-SICA **Duration (Months):** 48

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

Proposed EC Grant: 6.999.684 €

Abstract:

Many efforts have been deployed for developing Integrated Coastal Zone Management 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 Back 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.

- Refine and further develop efficient and easy to use tools for making sustainability assessments in the coastal zone (indicators, Accounting methods and models, scenarios). They will be tested and validated in a multi-scale approach for integrated regional assessment. - Implementation of a Spatial Data Infrastructure (SDI), following INSPIRE Directive, to organize 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.

Partners:

N	Partner Legal Name	Country
1	UNIVERSITAT AUTONOMA DE BARCELONA	ES
2	UNIVERSIDAD PABLO DE OLAVIDE	ES
3	PLAN BLEU POUR L'ENVIRONNEMENT ET LE DEVELOPPEMENT EN MEDITERRANNEE	FR
4	INSTITUT FRANCAIS DE RECHERCHE POUR L'EXPLOITATION DE LA MER	FR
5	ACRI Etudes et Conseils	MA
6	UNITED NATIONS EDUCATIONAL, SCIENTIFIC AND CULTURAL ORGANIZATION -UNESCO	FR
7	Priority Actions Programme Regional Activity Centre	HR
8	INTERNATIONAL UNION FOR CONSERVATION OF NATURE	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 Sansouïre	FR
24	National Authority for Remote Sensing and Space Sciences	EG

Activity Code: ENV.2009.2.2.1.5 **Funding Scheme:** CP-SICA **Duration (Months):** 48

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 €

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:

N	Partner Legal Name	Country
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
13	The University of the West Indies	BB
14	UNIVERSIDAD NACIONAL AUTONOMA DE MEXICO	MX
15	El Colegio de la Frontera Sur	MX
16	Centro de Ecologia Marina de Utila	HN
17	University of Miami	US
18	United States National Oceanic and Atmospheric Administration	US

Activity Code: ENV.2009.2.2.1.6 **Funding Scheme:** CSA-CA **Duration (Months):** 30

Title: The Deep Sea & Sub-Seafloor Frontier

Proposed EC Grant: 1.000.000 €

Abstract:

The Deep Sea and Sub-Seafloor Frontier project (DS³F) 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:

N	Partner Legal Name	Country
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
7	NATURAL ENVIRONMENT RESEARCH COUNCIL	UK
8	UNIVERSITAT DE BARCELONA	ES
9	UNIVERSITETET I TROMSOE	NO

Activity Code: ENV.2009.3.1.1.1 **Funding Scheme:** CP-IP **Duration (Months):** 48

Title: PREPARED "ENABLING CHANGE"

Proposed EC Grant: 6.994.802 €

Abstract:

IPCC climate change scenarios have a global perspective and need to be scaled down to the local level, where decision makers have to balance risks and investment costs. Very high investments might be a waste of money and too little investment could result in unacceptable risk for the local community. PREPARED is industry driven, 12 city utilities are involved in the project and the RDT carried out is based on the impacts of climate change the water supply and sanitation industry has identifed as a challenge for the years to come. The result of PREPARED will be an infrastructure for waste water, drinking water and storm water management that will not only be able better cope with new scenarios on climate change but that is also managed in a optimal way. We will have complexes monitoring and sensor systems, better integration and handling of complex data, better exploitation of existing infrastructures through improved real time control, new design concepts and guidelines for more flexible and more robust infrastructures. PREPARED will involve the local community in problem identification and in jointly finding acceptable system solutions, that are supported by all, through active learning processes. Activities and solutions in PREPARED will be based on a risk assessment and risk management approach for the whole urban water cycle, through the development of innovative Water Cycle Safety Plans. Other innovations are sensors and models that will enable faster and better actions on changes and new design rules for more resilient design. We will combine European knowledge with valuable knowledge from Australia and the USA, to make the European Water sector more competitive. This to enable our industrial partners to export the products developed in PREPARED to other regions of the world, thus contributing to the Lisbon Goals but also to the MDGs. To ensure this exploitation the PREPARED consortium consist of more than 50% industrial partners and is demand driven.

Partners:

N	Partner Legal Name	Country
1	KIWA WATER RESEARCH BV	NL
2	DHI INSTITUT FOR VAND OG MILJO FORENING	DK
3	STIFTELSEN SINTEF	NO
4	Kompetenzzentrum Wasser Berlin gGmbH	DE
5	INSTITUT NATIONAL DES SCIENCES APPLIQUEES DE LYON	FR
6	International Water Association	UK
7	UNIVERSITY OF BRADFORD	UK
8	THE UNIVERSITY OF EXETER	UK
9	CETAQUA, CENTRO TECNOLOGICO DEL AGUA	ES
10	Iride Acqua Gas S.p.A.	IT
11	TUBITAK Marmara Research Center	TR
12	INSTYTUT EKOLOGII TERENOW UPRZEMYSLOWIONYCH	PL
13	LABORATORIO NACIONAL DE ENGENHARIA CIVIL	PT
14	UNIVERSITAET INNSBRUCK	AT
15	Crimean Scientific and Research Center of Institute of Hydraulic Engineering and Land Reclamation of the Ukrainian Academy of Agricultural Sciences	UA
16	NIVUS GmbH	DE
17	scan Messtechnik	AT
18	Krüger A/S	DK
19	Aquateam - Norwegian Water Technology Centre AS	NO
20	IWW RHEINISCH WESTFAELISCHES INSTITUT FUR WASSERFORSCHUNG GEMEINNUETZIGE GMBH	DE
21	Clavegueram de Barcelona, S.A.	ES
22	Berliner Wasserbetriebe AöR	DE
23	Gemeente Eindhoven	NL
24	Mediterranea delle Acque S.p.A.	IT
25	ISTANBUL WATER AND SEWERAGE ADMINISTRATION	TR
26	Przedsiebiorstwo Wodociagów i Kanalizacji sp z o.o.	PL
27	EPAL - Empresa Portuguesa das Águas Livres, SA	PT

28	Communaute urbaine de Lyon	FR
29	Oslo kommune, Vann- og avløpseteten	NO
30	Crimean Republican Enterprise “Simferopol Drinking Water Supply and sewerage Company”	UA
31	Aarhus Water and Wastewater	DK
32	Dwr Cymru Welsh Water	UK
33	Seattle Public Utilities	US
34	Melbourne Water Corporation	AU
35	Monash University	AU

Activity Code: ENV.2009.3.1.3.1 **Funding Scheme:** CSA-CA **Duration (Months):** 24

Title: INTEGRATED WASTE MANAGEMENT IN WESTERN AFRICA

Proposed EC Grant: 999.917 €

Abstract:

Most of African countries are struggling towards development and improving their living conditions. An appropriate waste management structure at a national and regional level is a milestone that must be achieved in order to improve living standards, health and environment. The situation in many countries is that the obvious lack of a functional waste management system brings perennial garbage problems such as inefficient garbage collection, poor public compliance to waste segregation, uncontrolled open burning, and tolerated presence of open dumpsites. Furthermore valuable resources are lost due to inefficient or non-existing recycling systems. The establishment of an efficient waste management and recycling system contributes to enhancing the resource efficiency of these countries and thus supports a sustainable development in the long-term. The present Coordination Action will seek the establishment of Integrated Solid Waste Management systems (ISWM) in Western Africa. ISWM systems combine waste streams, waste collection, treatment and disposal methods, with the objective of achieving environmental benefits, economic optimization and societal acceptability. For the achievement of the project objectives, a solid waste management expert and research co-ordination platform will analyze the current situation in the targeted countries (Ghana, Nigeria, Senegal and Ivory Coast), identifying main gaps and constraints of any type (technological, sociological, organisational, etc.) and selecting suitable management systems. According to the results obtained, including inputs from authorities and policy makers in participatory workshops, the consortium will provide valuable guidelines and recommendations to be used in the future implementation of developed strategies such as National and Regional Action Plans on solid waste management. The project will also build local capacities through workshops and seminars where relevant stakeholders must be involved.

Partners:

N	Partner Legal Name	Country
1	VEREIN ZUR FOERDERUNG DES TECHNOLOGIETRANSFERS AN DER HOCHSCHULE BREMERHAVEN E.V.	DE
2	BIOAZUL	ES
3	EIDGENOESSISCHE MATERIALPRUEFUNGS- UND FORSCHUNGSANSTALT	CH
4	SVERIGES LANTBRUKSUNIVERSITET	SE
5	OEKO-INSTITUT E.V. - INSTITUT FUER ANGEWANDTE OEKOLOGIE	DE
6	FUNDACION GAIKER	ES
7	TECHNISCHE UNIVERSITAET BERLIN	DE
8	UNITED NATIONS UNIVERSITY INSTITUTE FOR ENVIRONMENT AND HUMAN SECURITY	DE
9	ENDA Tiers Monde	SN
10	Commune de Matam	SN
11	Institut Africain de Gestion Urbaine	SN
12	Zoomlion Ghana Ltd	GH
13	United nation University-Institute for natural Resources in Africa	GH
14	Kwame Nkrumah University of Science and Technology	GH
15	Basel Convention Regional Coordinating Centre fro Africa	NG
16	Environmental Law Research Institute	NG
17	Global Digital Solidarity Fund	NG
18	Universite Abobo-Adjame	CI
19	CENTRE FOR ENVIRONMENT AND DEVELOPMENT FOR THE ARAB REGION AND EUROPE	EG
20	Influential Inputs cc T/A Icando	ZA

Activity Code: ENV.2009.3.1.3.2 **Funding Scheme:** CP-FP **Duration (Months):** 36

Title: Development of sustainable solutions for nanotechnology-based products based on hazard characterization and LCA

Proposed EC Grant: 2.497.100 €

Abstract:

Objective of the NanoSustain project is to develop innovative solutions for the sustainable design, use, recycling and final treatment of nanotechnology-based products This will be achieved by a comprehensive data gathering and generation of relevant missing data, as well as their evaluation and validation, for specific nanoproducts or product groups in relation to their human health and environmental hazards and possible impacts that may occur during after-production stages. Although production of nanomaterials is rapidly increasing, our knowledge about possible health and environmental effects associated with these materials is still rather poor. This lack of knowledge calls for more research. Due to their small size, nanoparticles behave different than their chemical analogues. They can be taken up easily and in a unique way with possible adverse effects in man and organisms. Assessing their hazard is complex and needs new approaches and a close international cooperation. NanoSustain will address the questions, (1) how and to what degree society and the environment will be exposed to nanomaterials and associated products, and (2) where do these particles end up? Expected results will improve our present knowledge on the impact and fate of these particles after entering economic and natural cycles. NanoSustain has mobilized the critical mass of expertise, resources and skills to tackle this complex issue. Based on results from hazard characterization, impact assessment and LCA, we will explore on a lab-scale new solutions for the design of selected nanomaterials and associated products and their sustainable use, recycling and final treatment. As the concerned nanotech industry will actively participate in the planned project, NanoSustain will set the ground for the development of new sustainable products and industrial applications, and hence help to strengthen competitiveness of the European nanotechnology industry.

Partners:

N	Partner Legal Name	Country
1	NordMiljö AB	SE
2	INSTITUTE OF NANOTECHNOLOGY	UK
3	DET NATIONALE FORSKNINGSCENTER FORARBEJDSMILJO	DK
4	VALTION TEKNILLINEN TUTKIMUSKESKUS	FI
5	UNIVERSITAET BREMEN	DE
6	VENETO NANOTECH SCPA	IT
7	COMMISSION OF THE EUROPEAN COMMUNITIES - DIRECTORATE GENERAL JOINT RESEARCH CENTRE - JRC	BE
8	KAUNO TECHNOLOGIJOS UNIVERSITETAS	LT
9	NATIONAL INSTITUTE FOR RESEARCH AND DEVELOPMENT IN MICROTECHNOLOGIES	RO
10	Nanologica AB	SE
11	Nanogate AG	DE
12	UPM-Kymmene Oyj	FI
13	Amroy Europe Ltd	FI

Activity Code: ENV.2009.3.1.3.2 **Funding Scheme:** CP-FP **Duration (Months):** 42

Title: Life Cycle of Nanoparticle-based Products used in House Coating

Proposed EC Grant: 2.400.100 €

Abstract:

NanoHOUSE intends to create a holistic and prospective view on the Environmental Health and Safety (EHS) impacts of nanoproducts used in house building, namely paints and coatings. The latter are using relatively high amounts of Engineered NanoParticles (ENPs) such as nano-Ag and nano-TiO2 which will be investigated. A new Life Cycle Thinking (LCT) approach will be developed gathering two complementary aspects: Investigation of risks and opportunities during the product life cycle as well as Life Cycle Analysis (ISO 14040). LCT will collect information on EHS impacts throughout all life cycle stages of the nanoproducts, identifying the data gaps which will guide the research work. NanoHOUSE will generate reliable scientific information for the missing data and will develop appropriate methods to analyze the potential EHS impacts of nanoproducts. NanoHOUSE first task will be to quantify the actual sources of ENPs during the use and ageing of actual coatings (weathering, renovation, demolition and final disposal). The project will then characterize the environmental compartments significantly impacted by ENPs released from nanoproducts, measure ENPs concentrations and states in those compartments, and investigate their fate in order to increase the knowledge regarding exposure to ENPs with a view to reducing the risks. NanoHOUSE will study the environmental behaviour and the toxicological effects of actually released ENPs ("aged" ENPs) and compare them with pristine ENPs. Finally, NanoHOUSE will improve the solutions for end of life treatments regarding ENPs release in the environment. Main outcomes of the project will be a scientific risk evaluation of nanoproducts used in building, solutions to improve their competitive and sustainable development by decreasing their potential to release ENPs, and contributions to standard tests for their certification. The NanoHOUSE consortium involves 5 research/academic partners and 4 industrial manufacturers of which 1 SME.

Partners:

N	Partner Legal Name	Country
1	COMMISSARIAT ENERGIE ATOMIQUE CEA	FR
2	EIDGENOESSISCHE MATERIALPRUEFUNGS- UND FORSCHUNGSANSTALT	CH
3	CONSORZIO VENEZIA RICERCHE	IT
4	KATHOLIEKE UNIVERSITEIT LEUVEN	BE
5	UNIVERSITE JOSEPH FOURIER GRENOBLE 1	FR
6	MATERIS PAINTS ITALIA	IT
7	GFC Chimica s.r.l.	IT
8	AkzoNobel Coatings S.A.	FR
9	PPG Europe B.V.	NL

Activity Code: ENV.2009.3.1.3.2 **Funding Scheme:** CP-FP **Duration (Months):** 48

Title: Nanoparticle Fate Assessment and Toxicity in the Environment

Proposed EC Grant: 2.497.100 €

Abstract:

Concept: NanoFATE has been conceived to fill knowledge and methodological gaps currently impeding sound assessment of environmental risks posed by engineered nanoparticles (ENPs). Our vision is to assess environmental fate and risk of ENPs from high-volume products for which recycling is not an option; namely; fuel additive, personal care and antibacterial products. Two market ENPs from each product (CeO2, ZnO, Ag of varying size, surface and core chemistries) will be followed through their post-production life cycles i.e. from environmental entry as “spent product”, through waste treatment to their final fates and potential toxic effects. This will test the applicability of current fate and risk assessment methods and identify improvements required for a scientific assessment of ENPs at an early stage. Objectives: Such systematic study of the environmental fate and toxicity of selected ENPs will entail addressing 9 S&T objectives: 1: Design, tagging and manufacture of ENPs 2: Analysis of ENP interactions with abiotic and biotic entities 3: Generating predictive models for ENP exposure in waters and sludge-amended soils 4: Studying the fate and behaviour of ENPs through wastewater treatment 5: Determining acute and chronic ecotoxicity 6: Assessing effects of physico-chemical properties on ENP bioavailability 7: Defining mechanisms of uptake, internal trafficking, and toxicity 8: Developing spatial RA model(s) 9: Improving understanding of ENP risks Methodology: The work plan is designed to progress beyond the state-of-the-art through focused workpackages. While some objectives are delivered in single WPs, good cross WP integration will secure the key objectives of delivering new methods for quantifying ENP risks. Impact: NanoFATE will provide robust tools, techniques and knowledge needed by stakeholders to understand and communicate risks associated with different ENPs, including their environmental interactions and toxicity.

Partners:

N	Partner Legal Name	Country
1	NATURAL ENVIRONMENT RESEARCH COUNCIL	UK
2	VERENIGING VOOR CHRISTELIJK HOGER ONDERWIJS WETENSCHAPPELIJK ONDERZOEK EN PATIENTENZORG	NL
3	THE CHANCELLOR, MASTERS AND SCHOLARS OF THE UNIVERSITY OF OXFORD	UK
4	UNIVERSIDADE DE AVEIRO	PT
5	FAUST UND BACKHAUS ENVIRONMENTAL CONSULTING GBR	DE
6	NanoTrade s.r.o.	CZ
7	UNIVERSITA DEGLI STUDI DEL PIEMONTE ORIENTALE AMEDEO AVOGADRO	IT
8	INSTYTUT WYSOKICH CISNIEN POLSKIEJ AKADEMII NAUK	PL
9	CARDIFF UNIVERSITY	UK
10	Amepox Enterprise Ltd	PL
11	GOETEBORGS UNIVERSITET	SE
12	INSTITUT SYMLOG	FR

Activity Code: ENV.2009.3.1.3.2 **Funding Scheme:** CP-FP **Duration (Months):** 36

Title: Toxicological impact of nanomaterials derived from processing, weathering and recycling of polymer nanocomposites used in various industrial applications

Proposed EC Grant: 2.438.000 €

Abstract:

The main goal of this project will be to obtain the toxicological profile of nanomaterials included in polymer nanocomposites used in the automotive sector during their life cycle. The toxicological profile will be based in the physical and chemical changes of the nanomaterials during the artificial aging/weathering process of the nanocomposites. This exhaustive evaluation includes the selection of adequate digestion and extraction methods to separate the nanomaterials from the polymeric matrix. Optimization of these methods will facilitate the development of recycling techniques that will be applied in the end-stage of polymer nanocomposites. In vitro viability studies will be carried out in human cellular lines to determine the toxicity of the raw nanomaterials. These studies will be focused in nanomateriales widely used in the automotive industry (reinforcement of polymers for light composites) such as carbon nanotubes, nanoclays and metal oxide nanoparticles.

Partners:

N	Partner Legal Name	Country
1	ACONDICIONAMIENTO TARRASENSE ASSOCIACION	ES
2	Research and Development of Carbon Nanotubes S.A.	EL
3	CATALAN INSTITUTE OF NANOTECHNOLOGY	ES
4	POLYRISE SAS	FR
5	L'UREDERRA, FUNDACION PARA EL DESARROLLO TECNOLOGICO Y SOCIAL	ES
6	DHI FORENING	DK
7	LAVIOSA CHIMICA MINERARIA SPA	IT
8	LATI INDUSTRIA TERMOPLASTICI SPA	IT

Activity Code: ENV.2009.3.1.5.1 **Funding Scheme:** CP-FP **Duration (Months):** 36

Title: Smart Resilience Technology, Systems and Tools

Proposed EC Grant: 3.489.657 €

Abstract:

The programme, involving leading European organisations, will develop innovative smart technology, systems and implementation tools. The project is set out into six main work packages: WP1 – Management: controlling the operation, scientific excellence and finance of the consortium. WP2 – FRe technology: developing innovative and smart technology and products, based on extending current products and introducing smart systems that rely less on manual intervention. The emphasis is on cost effective solutions. The WP will develop guidance and standards for FRe technology that could be adopted by standards organisations as harmonised standards. WP3 – FRe systems: developing the concept of flood resilient systems in the urban environment through the use of case studies in seven partner countries. FRe systems are the combination of FRe technology and the urban environment within which they sit. The FRe systems can range from individual building and infrastructure level to whole cities. WP4 – FRe implementation: considering how to implement FRe technology and systems in practice. It will consider appropriate tools and develop a decision support system. WP5 – Integration: bringing together the theory and practical research in WP2 – WP4, the intention is to demonstrate how FRe technology, systems and implementation can work in practice. The involvement of relevant stakeholders through national support groups will be essential. WP6 – Dissemination: a range of dissemination activities are planned within the project. A project web site will host an information platform. National and international conferences will disseminate the research results and create impact amongst stakeholders. A manual of FRe technology, systems and implementation tools will be produced. The project partners have already cooperated for more than three years in COST Action C22 – Urban Flood Management and are therefore well placed to successfully undertake this project.

Partners:

N	Partner Legal Name	Country
1	BUILDING RESEARCH ESTABLISHMENT LTD	UK
2	TECHNISCHE UNIVERSITAET HAMBURG-HARBURG	DE
3	CENTRE SCIENTIFIQUE ET TECHNIQUE DU BATIMENT	FR
4	The University of Manchester	UK
5	NATIONAL AND KAPODISTRIAN UNIVERSITY OF ATHENS	EL
6	Dion. Toumazis & Associates	CY
7	ECOLE NATIONALE DES PONTS ET CHAUSSEES	FR
8	TECHNISCHE UNIVERSITEIT DELFT	NL
9	UNIVERSIDAD POLITECNICA DE MADRID	ES
10	Leibniz Institute of Ecological and Regional Development (IOER)	DE

Activity Code: ENV.2009.3.1.5.1 **Funding Scheme:** CP-FP **Duration (Months):** 48

Title: Technologies for the cost-effective Flood Protection of the Built Environment

Proposed EC Grant: 3.498.992 €

Abstract:

The principal aim of FloodProBE is to provide cost-effective means for the flood protection and damage mitigation in urban areas. To this end, FloodProBE will develop, test and disseminate technologies, methods, concepts and tools for risk assessment and mitigation, focussing particularly on the adaptation of new and existing buildings (retrofitting) and on infrastructure networks. The three main elements addressed by FloodProBE are (a) the vulnerability of critical infrastructure and high-density value assets, being the main originators of direct and indirect flood damage, (b) the reliability of urban flood defences by improving understanding and assessment of failure processes that have proven to be critical in recent flood events and (c) construction technologies and concepts for flood-proofing buildings and infrastructure networks to increase the flood-resilience of the urban system as well as for retrofit and repair of flood defences in the most economic and cost beneficial manner. The afore-mentioned elements will be integrated into state-of-the-art flood risk management strategies and will be developed, tested and validated via pilot study sites. A wide range of stakeholders will be involved in the project from the outset through an Associate Partner programme and by an external Advisory Board. This involvement will provide guidance on the project programme to directly meet industry needs, whilst also facilitating international dissemination, supporting uptake and implementation of project deliverables. The primary impact of FloodProBE will be a significant increase in the cost-effectiveness (i.e. performance) of investments in newly developed and existing flood protection and flood resilience measures. This will be achieved by focusing the research on “risk hotspots”, i.e. weak links in flood defence system performance and vulnerable assets, that, if damaged, cause very large direct and indirect adverse consequences (e.g. infrastructure networks).

Partners:

N	Partner Legal Name	Country
1	STICHTING DELTARES	NL
2	HR WALLINGFORD LTD	UK
3	CENTRE NATIONAL DU MACHINISME AGRICOLE, DU GENIE RURAL, DES EAUX ET DES FORETS	FR
4	STIFTELSEN SINTEF	NO
5	EIVP	FR
6	Regionální Environmentální Centrum, CR	CZ
7	OXFORD BROOKES UNIVERSITY	UK
8	Dura Vermeer Groep NV	NL
9	ACCIONA INFRAESTRUCTURAS S.A.	ES
10	Samui Design & Management Ltd	UK
11	MOSTOSTAL WARSZAWA SA	PL
12	LABORATOIRE CENTRAL DES PONTS ET CHAUSSEES	FR
13	DeltaSync BV	NL

Activity Code: ENV.2009.3.1.5.2 **Funding Scheme:** CP-FP **Duration (Months):** 36

Title: Sustainability and performance assessment and benchmarking of buildings - SuPerBuildings

Proposed EC Grant: 1.950.000 €

Abstract:

The project will develop 1) sustainability indicators for buildings, 2) understanding about the needed performance levels considering new and existing buildings, different building types and local requirements, 3) methods for the benchmarking of sustainable buildings (SB) and 4) recommendations for the effective use of benchmarking systems as instruments of steering and in building processes. The work will make use of the existing knowledge of SB assessment and rating systems. However, the project recognises that there are still unsolved issues and areas with no common understanding. These include: a) the integration of social and economic issues with SB assessment, b) consideration of certain environmental aspects as land use, c) defining appropriate performance levels considering both minimal levels and advanced targets, d) consideration of local conditions, different building types, and both new and existing buildings when selecting performance levels, d) selection of benchmarking criteria to be easily adopted in different parts of Europe, e) effective mobilisation of the benchmarking system, f) effective making use of the system in building processes and in building regulation and steering. The work will be divided into 8 work packages: WP1 ensures the effective work progress and the good communication between project members and between the project and the Commission; WP2 establishes the common starting point for the project; WP3 analyses the potential of SB benchmarking systems as an instrument of steering and when used in different phases of building projects, WP4 develops and selects sustainability indicators that describe the environmental, social and economic performance of buildings, WP5 defines performance levels and benchmarking criteria, WP6 makes recommendations for effective exploitation, WP7 pilots the system, and WP8 disseminates the outcomes with help of the project NETWORK GROUP and with help of powerful organisations of building professionals.

Partners:

N	Partner Legal Name	Country
1	VALTION TEKNILLINEN TUTKIMUSKESKUS	FI
2	BRE Global Ltd	UK
3	CENTRE SCIENTIFIQUE ET TECHNIQUE DU BATIMENT	FR
4	CENTRE SCIENTIFIQUE ET TECHNIQUE DE LA CONSTRUCTION	BE
5	UNIVERSITAET KARLSRUHE (TECHNISCHE HOCHSCHULE)	DE
6	CESKE VYSOKE UCENI TECHNICKE V PRAZE	CZ
7	STIFTELSEN SINTEF	NO
8	FRAUNHOFER-GESELLSCHAFT ZUR FOERDERUNG DER ANGEWANDTEN FORSCHUNG E.V	DE
9	FUNDACION LABEIN	ES
10	OSTERREICHISCHE GESELLSCHAFT FUR UMWELT UND TECHNIK	AT
11	YIT Kiinteistötekniikka Oy	FI
12	VINCI CONSTRUCTION FRANCE	FR
13	WSGreen Technologies GmbH	DE
14	Context AS	NO
15	Stichting W/E adviseurs duurzaam bouwen	NL
16	GEOS s.r.l.	IT

Activity Code: ENV.2009.3.1.5.2 **Funding Scheme:** CP-FP **Duration (Months):** 36

Title: OPEN HOUSE - Benchmarking and mainstreaming building sustainability on the EU based on transparency and openness (open source and availability) from model to implementation.

Proposed EC Grant: 3.498.732 €

Abstract:

The overall objective of OPEN HOUSE is to develop and to implement a common European transparent building assessment methodology, complementing the existing ones, for planning and constructing sustainable buildings by means of an open approach and technical platform. OPEN HOUSE will develop a transparent approach able to emerge collectively in an open way across the EU. This approach will be communicated to all stakeholders and their interaction and influence on the methodology will be assured in a democratic way. The baseline will be existing standards (both CEN/TC 350 and ISO TC59/SC17), the EPBD Directive and its national transpositions, and methodologies for assessing building sustainability at international, European and national level.

Partners:

N	Partner Legal Name	Country
1	ACCIONA INFRAESTRUCTURAS S.A.	ES
2	Architects' Council of Europe	BE
3	APPLIED INDUSTRIAL TECHNOLOGIES LTD	EL
4	Ove Arup & Partners International Ltd.	UK
5	Basque Government- Housing Department	ES
6	BOUYGUES CONSTRUCTION	FR
7	City of Warsaw	PL
8	SLOVENSKI GRADBENI GROZD - GIZ	SI
9	D'APPOLONIA SPA	IT
10	Deutsche Gesellschaft für Nachhaltiges Bauen	DE
11	Electricite de France SA	FR
12	Eidgenössische Technische Hochschule Zürich	CH
13	FRAUNHOFER-GESELLSCHAFT ZUR FOERDERUNG DER ANGEWANDTEN FORSCHUNG E.V	DE
14	Instytut Techniki Budowlanej	PL
15	MOSTOSTAL WARSZAWA SA	PL
16	SP Technical Research Institute of Sweden	SE
17	Vivienda y Suelo de Euskadi, S.A	ES
18	Gradbeni inštitut ZRMK	SI

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

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

Proposed EC Grant: 6.530.000 €

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 sediment reservoirs, multi-purpose structures, or 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 considers 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 16 study sites across Europe and the world, 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:

N	Partner Legal Name	Country
1	ALMA MATER STUDIORUM-UNIVERSITA DI BOLOGNA	IT
2	UNIVERSIDAD DE CANTABRIA	ES
3	University of Plymouth Higher Education Corporation	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 (Institute of Meteorology and Water Management)	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	CORILA-CONSORZIO PER LA GESTIONE DEL CENTRO DI COORDINAMENTO DELLE ATTIVITA DI RICERCA INERENTI IL SISTEMA LAGUNARE DI VENEZIA	IT
16	Instytut Budownictwa Wodnego Polskiej Akademii Nauk	PL
17	BANGOR UNIVERSITY	UK
18	BUREAU DE RECHERCHES GEOLOGIQUES ET MINIERES	FR
19	Hamburg Port Authority	DE
20	EID Méditerranée	FR
21	LATVIJAS UNIVERSITATE	LV
22	Istituto Superiore per la Ricerca e la Protezione Ambientale (ISPRA)	IT
23	VLAAMS INSTITUUT VOOR DE ZEE VZW	BE
24	Aristotle University of Thessalomiki	EL
25	KATHOLIEKE UNIVERSITEIT LEUVEN	BE
26	Marine Hydrophysical Institute of National Academy of sciences of Ukraine	UA
27	P.P. SHIRSHOV INSTITUTE OF OCEANOLOGY OF RUSSIAN ACADEMY OF SCIENCES	RU
28	University of Delaware	US

29	Universidad Nacional Autónoma de México	MX
30	State Key Laboratory of Estuarine and Coastal Research	CN
31	Coastal Ocean Monitoring Center	TW
32	ASR Limited	NZ

Activity Code: ENV.2009.3.2.1.1 **Funding Scheme:** CP-FP **Duration (Months):** 36

Title: NEW INTEGRATED KNOWLEDGE BASED APPROACHES TO THE PROTECTION OF CULTURAL HERITAGE FROM EARTHQUAKE-INDUCED RISK

Proposed EC Grant: 2.736.114 €

Abstract:

The project proposal tackles the problem of earthquake-impact on Cultural Heritage assets starting from basic consideration that efficient protection, with substantial guarantee of compatibility and low-intrusivity, can only be achieved with 'minimum intervention' approach. This requires that potentialities of existing materials and components are as much as possible exploited in terms of strength and energy dissipation, and candidate interventions are validated and optimized on specific, real application conditions. At the project start, earthquake-induced failure mechanisms, construction types and materials, intervention and assessment techniques will be cross-correlated with the aim of developing new integrated methodologies with a systemic approach. Traditional materials will be enhanced by innovative industrial processes (e.g., nano-limes or micro-silica for injection), and new high-performance (e.g. dissipative) elements will be developed. Novel collaborative combinations of them will be tested on structural components (walls, pillars, floors, vaults) and on structural connections (wall-, floor- and roof-to-wall), which converge the behaviour of single strengthened elements into the global structural response. The envisaged techniques will be also validated on model buildings and substructures. Advanced numerical studies will allow parameterizing the results and deriving simple and optimized design procedures. Early warning techniques for intelligent interventions and advanced monitoring techniques for knowledge based assessment and progressive implementation of interventions will be also developed. This bottom-up approach will bring to new integrated materials, technologies and tools for systemic improvement of seismic behaviour of CH assets. The new solutions will be condensed into guidelines for end-users. The large participation of research centres, SME, and end-user from various countries, including ICPC and MPC, ensures increased impact of the research.

Partners:

N	Partner Legal Name	Country
1	UNIVERSITA DEGLI STUDI DI PADOVA	IT
2	BUNDESANSTALT FUER MATERIALFORSCHUNG UND -PRUEFUNG	DE
3	USTAV TEORETICKE A APLIKOVANE MECHANIKY, AKADEMIE VED CESKE REPUBLIKY VEREJNA VYZKUMNA INSTITUCE	CZ
4	NATIONAL TECHNICAL UNIVERSITY OF ATHENS	EL
5	POLITECNICO DI MILANO	IT
6	UNIVERSIDADE DO MINHO	PT
7	UNIVERSITAT POLITECNICA DE CATALUNYA	ES
8	UNIVERSITY OF BATH	UK
9	GAZI UNIVERSITY	TR
10	Ecole Nationale d'Architecture	MA
11	conservation department-cairo university	EG
12	Israel Antiquities Authority	IL
13	Bozza Legnami S.r.l.	IT
14	Peter James	UK
15	Interprojekt d.o.o.	BA
16	S&B Industrial Minerals S.A.	EL
17	ZRS Architekten Ingenieure Bürogemeinschaft	DE
18	Monumenta	PT

Activity Code: ENV.2009.3.2.1.1 **Funding Scheme:** CP-FP **Duration (Months):** 36

Title: Performance-based approach to the earthquake protection of cultural heritage in European and Mediterranean countries

Proposed EC Grant: 2.237.475 €

Abstract:

PERPETUATE intends to develop European Guidelines for evaluation and mitigation of seismic risk to cultural heritage assets, with innovative techniques for the seismic strengthening of historical buildings and the preservation of artworks (frescos, stucco-works, statues, battlements, banisters, …). The main deliverable of the project will be made by a main document, which outlines the safety and conservation conceptual approach and the overall methodology, and other specific documents, describing the different components of the risk analysis. Two different problems are considered: a) assessment of a single cultural heritage asset (hazard analysis; soil foundation problems; investigations for the building knowledge; seismic analysis; SHM and strengthening interventions); b) policy initiatives for seismic risk mitigation (simplified vulnerability and risk analysis at territorial scale). Other important deliverables will come out from the application and validation of the methodology in two case studies, the Citadel of Algiers and the historical centre of Rhodes, both in the UNESCO list of the World Cultural Heritage. The call asks for the development of “integrated methodologies and innovative tools” for “protection .. of the main cultural heritage assets as regards the impact of earthquakes” and makes expressly reference to the contribution for improved regulation and standards. The recommendations recently issued by the Italian Ministry of Culture represent the framework for the development of European Guidelines, applicable in the European and the other Mediterranean countries. The methodology proposed in PERPETUATE will use a displacement-based approach for the vulnerability evaluation and the design of interventions; the use of safety verification in terms of displacement, rather than strength, orients to new strengthening techniques and helps in the comprehension of the interaction between structural elements and unmovable artistic assets.

Partners:

N	Partner Legal Name	Country
1	UNIVERSITA DEGLI STUDI DI GENOVA	IT
2	Ente per le Nuove tecnologie, l'Energia e l'Ambiente	IT
3	BUREAU DE RECHERCHES GEOLOGIQUES ET MINIERES	FR
4	ARISTOTELIO PANEPISTIMIO THESSALONIKIS	EL
5	NATIONAL TECHNICAL UNIVERSITY OF ATHENS	EL
6	UNIVERZA V LJUBLJANI	SI
7	UNIVERSITY OF BATH	UK
8	USTHB/LBE	DZ
9	Gradbeni inštitut ZRMK d.o.o.	SI
10	Entreprise de Travaux de Bâtiment Mekhati	DZ

Activity Code: ENV.2009.3.2.1.2 **Funding Scheme:** CP-FP **Duration (Months):** 36

Title: Fire Detection and Management through a Multi-Sensor Network for the Protection of Cultural Heritage Areas from the Risk of Fire and Extreme Weather Conditions

Proposed EC Grant: 2.697.092 €

Abstract:

The proposed project aims to develop an automatic early warning system to remotely monitor areas of archaeological and cultural interest from the risk of fire and extreme weather conditions. Since these areas have been treasured and tended for very long periods of time, they are usually surrounded by old and valuable vegetation or situated close to forest regions, which exposes them to an increased risk of fire. Additionally, extreme weather conditions (such as storms and floods) pose great risks for these sites. The proposed system will take advantage of recent advances in multi-sensor surveillance technologies, using a wireless sensor network capable of monitoring different modalities (e.g. temperature) andoptical and infrared cameras, as well as local weather stations on the deployment site. The signals collected from these sensors will be transmitted to a monitoring center, which will employ intelligent computer vision and pattern recognition algorithms as well as data fusion techniques to automatically analyze sensor information. The proposed system will be capable of generating automatic warning signals for local authorities whenever a dangerous situation arises. Detecting the starting position of a fire is only the first step in fire fighting. After detecting a wildfire, the main focus should be the estimation of the propagation direction and speed in order to help forest fire management. FIRESENSE will provide real-time information about the evolution of fire using wireless sensor network data. Furthermore, it will estimate the propagation of the fire based on the fuel model of the area and other important parameters such as wind speed, slope, and aspect of the ground surface. Finally, a 3-D Geographic Information System (GIS) environment will provide visualisation of the predicted fire propagation.Demonstrator deployments will be operated in selected sites in Greece, Turkey and Tunisia.

Partners:

N	Partner Legal Name	Country
1	CENTRE FOR RESEARCH AND TECHNOLOGY HELLAS	EL
2	Bilkent Universitesi	TR
3	Ecole Supérieure des Communications	TN
4	XenICs nv	BE
5	Stichting Centrum voor Wiskunde en Informatica	NL
6	MARAC ELECTRONICS, S.A	EL
7	Bogazici Universitesi	TR
8	MINISTRY OF CULTURE, IX EPHORATE FOR PREHISTORIC AND CLASSICAL ANTIQUITIES	EL
9	TITAN BUILDING SYSTEMS TECHNOLOGY, INDUSTRY AND TRADE LIMITED COMPANY	TR

Activity Code: ENV.2009.3.3.1.1 **Funding Scheme:** CP-FP **Duration (Months):** 48

Title: CHEMICAL SUBSTANCE IN VITRO/IN SILICO SCREENING SYSTEM TO PREDICT HUMAN- AND ECOTOXICOLOGICAL EFFECTS

Proposed EC Grant: 3.496.723 €

Abstract:

The current system of risk assessment of chemicals is complex, very resource-intensive and extremely time-consuming. Because of this, there is a great need to modernize this process. However, this is not feasible without alternative, integrated testing strategies in which chemical characteristics are used to more advantage and where costly and time consuming animal tests are replaced to a large extent by more rapid, cheap and ethically less controversial methods. This is particularly needed for reproductive toxicity testing of chemical. Reproductive toxicity is important to assess both human and environmental toxicity and uses the most animals in toxicity testing. Unfortunately, there are very few alternative methods. We aim to fill this gap and place the tests in a more general innovative animal free testing strategy. For this, we will generate a simple rapid screening system, which aims at widespread implementation within the tight time schedule of the REACH program. It will be a flexible tool that can be adapted and used for applications beyond the scope of REACH and in the post-REACH period. It will use in silico methods for prescreening chemicals for all relevant toxic effects. When found positive, this will be followed by further in silico and in vitro tests, most of which are available already. To fill the gap of suitable alternative methods for reproductive toxicity testing we will use a novel high throughput approach combining in silico/in vitro methods. In this approach we will combine knowledge of critical processes affected by reproductive toxicants with knowledge on the mechanistic basis of such effects. Straight forward data interpretation and decision trees will be developed in which all information on the potential toxicity of a chemical is considered. In this way we will provide a cost-effective means to generate a basic set of data on toxicological properties of chemicals and a decision tool to assess if further testing of chemicals is required.

Partners:

N	Partner Legal Name	Country
1	BioDetection Systems B.V.	NL
2	FRAUNHOFER-GESELLSCHAFT ZUR FOERDERUNG DER ANGEWANDTEN FORSCHUNG E.V	DE
3	NEDERLANDSE ORGANISATIE VOOR TOEGEPAST NATUURWETENSCHAPPELIJK ONDERZOEK	NL
4	SIMPPLE S.L.	ES
5	RIJKSINSTITUUT VOOR VOLKSGEZONDHEID EN MILIEU	NL
6	Technical University of Denmark	DK
7	PROCTER AND GAMBLE INTERNATIONAL OPERATIONS S.A.	CH
8	EBERHARD KARLS UNIVERSITAET TUEBINGEN	DE
9	Universität Konstanz	DE

Activity Code: ENV.2009.3.3.2.1 **Funding Scheme:** CP-FP **Duration (Months):** 36

Title: Development and application of environmental Life Cycle Impact assessment Methods for imProved sustAinability Characterisation of Technologies

Proposed EC Grant: 3.413.950 €

Abstract:

LC-IMPACT is a 3-year project and its main objective is the development and application of life cycle impact assessment methods, characterisation and normalisation factors. Impact from land use, water use, marine, mineral and fossil resource use, ecotoxicity and human toxicity, and a number of non-toxic emission-related impact categories will be considered in LC-IMPACT. First, new impact assessment methods will be developed for categories that are not (commonly) included in life cycle impact assessments and categories for which model uncertainties are very high, i.e. land use, water exploitation, resource use, and noise. Second, LC-IMPACT will provide spatially explicit characterisation factors based on global scale models for land use, water exploitation, toxicants, priority air pollutants, and nutrients. Thirdly, parameter uncertainty and value choices will be assessed for impact categories with high uncertainties involved, such as ecotoxicity and human toxicity. Fourthly, ready-to-use characterisation factors will be calculated and reported. Fifthly, normalisation factors for Europe and the world will be calculated for the impact categories included. Sixthly, the improved decision support of the new characterisation factors and normalisation factors will be demonstrated in the context of the following three case studies: i) food production (fish, tomatoes, margarine), ii) paper production and printing, and iii) automobile manufacturing and operation. Finally, verification and dissemination of the new life cycle impact assessment methods and factors will be done by a portfolio of actions, such as stakeholder consultation, a project website, workshops, course developments, and training of user groups. In short, LC-IMPACT will provide improved, globally applicable life cycle impact assessment methods, characterisation and normalisation factors, that can be readily used in the daily practice of life cycle assessment studies.

Partners:

N	Partner Legal Name	Country
1	RADBOUD UNIVERSITEIT NIJMEGEN - STICHTING KATHOLIEKE UNIVERSITEIT	NL
2	Eidgenössische Technische Hochschule Zürich	CH
3	DANMARKS TEKNISKE UNIVERSITET	DK
4	SIK - INSTITUTET FOER LIVSMEDEL OCH BIOTEKNIK AB	SE
5	PRé Consultants b.v.	NL
6	INTERNATIONALES INSTITUT FUER ANGEWANDTE SYSTEMANALYSE	AT
7	UNILEVER UK CENTRAL RESOURCES LIMITED	UK
8	UNIVERSITAET STUTTGART	DE
9	Ecointesys - Life Cycle Systems Sàrl	CH
10	UNIVERSITEIT LEIDEN.	NL
11	European Community represented by the European Commission - Directorate General Joint Research Centre	BE
12	Raw Materials Group RMG AB	SE
13	Grafisk Arbejdsgiverforening	DK
14	Daimler AG Mercedes Benz Werk Rastatt	DE
15	INSTITUT DE RECERCA I TECNOLOGIA AGROALIMENTARIES.	ES

Activity Code: ENV.2009.4.1.2.1 **Funding Scheme:** CSA-SA **Duration (Months):** 24

Title: Improving coordination, visibility and impact of European GEOSS contributions by establishing a EUropean GEoss NEtwork (EUGENE)

Proposed EC Grant: 735.060 €

Abstract:

Coordinated European contributions to GEO and GEOSS at all levels are key to making GEOSS a success for Europe, its States and its Organisations. There is consensus within the European GEO community that visibility and impact of European GEO contributions should be reinforced, mainly by improved coordination. The ultimate goals is to develop an adequate European GEO component that reflects the excellence and importance of European Earth Observation capabilities as well as the European needs from GEOSS. The EUGENE project, with a series of workshops and other activities, will lead to a more strategic and structured European GEO component and to a higher level of visibility and involvement of the political level. In the short term, EUGENE will yield concrete contributions to the next GEO Ministerial summit in 2010. This will intensify the global impact of European GEO activities and facilitate international networking. EUGENE will mainly, but not exclusively, address the major relevant European Organisations and Programmes in the field of earth observation, with regard and complementary to GMES, INSPIRE and FP7 GEO projects.

Partners:

N	Partner Legal Name	Country
1	DEUTSCHES ZENTRUM FUER LUFT - UND RAUMFAHRT EV	DE
2	THE EUROPEAN ORGANISATION FOR THE EXPLOITATION OF METEOROLOGICAL SATELLITES	DE
3	Bundesanstalt für Gewässerkunde	DE

Activity Code: ENV.2009.4.1.3.1 **Funding Scheme:** CP-IP **Duration (Months):** 36

Title: Earth Observation and ENVironmental modelling for the mitigation of HEAlth risks

Proposed EC Grant: 6.273.434 €

Abstract:

EO2HEAVEN contributes to a better understanding of the complex relationships between environmental changes and their impact on human health. The project will monitor changes induced by human activities, with emphasis on atmospheric, river, lake and coastal marine pollution. EO2HEAVEN will follow a multidisciplinary and user-driven approach involving public health stakeholders who will work closely with technology and service providers in both the earth observation and in-situ environmental monitoring domain. The result of this collaboration will be the design and development of a GIS based upon an open and standards-based Spatial Information Infrastructure (SII) envisaged as a helpful tool for research of human exposure and early detection of infections. The key factors of the EO2HEAVEN system will be 1) an enhanced integration of remotely sensed and in-situ environmental measurements, and 2) the development of models to relate these environmental data to exposure and health data. Both factors will directly address current goals of GEOSS such that the resulting system will be integrated into the GEOSS infrastructure after successful validation already during the course of the project. Throughout the life span of the project the stakeholder requirements from three different use cases (in Europe and Southern Africa) will be assessed and the technical solutions proposed by EO2HEAVEN will be evaluated through an iterative process, thus ensuring that the solutions can be applied on a global scale. EO2HEAVEN will specify and implement the SII as an open architecture based upon international standards and adaptive geospatial Web services in alignment with the large-scale initiatives INSPIRE and GMES. The SII will include bridging capabilities at the syntactic and semantic levels to and between environmental and health systems. Ongoing and recently completed research projects in the ICT, environmental and health domains will be studied and used in an integrative approach.

Partners:

N	Partner Legal Name	Country
1	ATOS ORIGIN SOCIEDAD ANONIMA ESPANOLA	ES
2	TECHNISCHE UNIVERSITAET DRESDEN	DE
3	52°North Initiative for Geospatial Open Source Software GmbH	DE
4	UMWELTBUNDESAMT	DE
5	SPOT IMAGE (SI) SA	FR
6	NEVANTROPIC	FR
7	COMMISSION OF THE EUROPEAN COMMUNITIES - DIRECTORATE GENERAL JOINT RESEARCH CENTRE - JRC	BE
8	COUNCIL FOR SCIENTIFIC AND INDUSTRIAL RESEARCH	ZA
9	OPEN GEOSPATIAL CONSORTIUM (EUROPE) LIMITED	UK
10	FRAUNHOFER-GESELLSCHAFT ZUR FOERDERUNG DER ANGEWANDTEN FORSCHUNG E.V	DE
11	BUREAU DE RECHERCHES GEOLOGIQUES ET MINIERES	FR
12	STICHTING INTERNATIONAL INSTITUTE FOR GEO-INFORMATION SCIENCE AND EARTH OBSERVATION	NL
13	UNIVERSITY OF KWAZULU-NATAL	ZA
14	ICT Policy Implementation Technical Unit	MZ

Activity Code: ENV.2009.4.1.3.2 **Funding Scheme:** CP-SICA **Duration (Months):** 36

Title: Impact Monitoring of Mineral Resources Exploitation

Proposed EC Grant: 2.614.913 €

Abstract:

ImpactMin will develop new methods and a corresponding toolset for the environmental impact monitoring of mining operations using Earth Observations. Novel technology will be proposed for the combined use of satellite remote sensing, aerial lightweight measurements and Unmanned Aerial Vehicles (UAVs). Results will be visualised by taking full advantages of Virtual Reality applications and 3D GIS. The proposed methods will be validated at four demonstration sites in Sweden, Bosnia&Herzegovina, Romania and Russia. The theoretical advancement in science and technology will be made public knowledge with the help of a free multimedia e-learning programme whereas the tools and foreground knowledge will be commercialised by the participating SMEs. The scientific challenge is to use remote sensing technologies to develop cost-effective, reliable and repeatable approaches for monitoring the impact of mining activities on the environment through time, in order to identify, predict and prevent potentially serious consequences for the natural and human environment. On the one hand it is of great importance that the amount of detail obtained from these data sources is sufficient to monitor relatively small changes through time. On the other hand it is essential that the methods used are sufficiently flexible to operate under different circumstances at acceptable cost. The composition of project partnership and the selection of demonstration sites correspond to European interests in both accessing strategic minerals needed for the European economy and the need to monitor and control environmental pollution from these sources.

Partners:

N	Partner Legal Name	Country
1	GEONARDO ENVIRONMENTAL TECHNOLOGIES LTD	HU
2	GEOSENSE	NL
3	University of Exeter	UK
4	Lulea University of Technology	SE
5	Photon d.o.o. Split	HR
6	University of Mostar	BA
7	Institute of Mineralogy Russian Academy ofSciences (Urals branch)	RU
8	Universitatea Babes-Bolyai	RO
9	Ukrainian Land and Resource Management Center	UA
10	DMT GmbH & Co.KG	DE
11	VLAAMSE INSTELLING VOOR TECHNOLOGISCH ONDERZOEK N.V.	BE

Activity Code: ENV.2009.4.1.3.2 **Funding Scheme:** CP-SICA **Duration (Months):** 36

Title: Earth Observation for Monitoring and Observing Environmental and Societal Impacts of Mineral Resources Exploration and Exploitation

Proposed EC Grant: 3.124.015 €

Abstract:

European Commission Vice President Günter Verheugen, responsible for enterprise and industry policy declared "European industries need predictability in the flow of raw materials and stable prices to remain competitive. We are committed to improve the conditions of access to raw materials, be it within Europe or by creating a level playing field in accessing such materials from abroad." The global dimension of access to raw materials was on the agenda of the G8 Summit on June 2007. On that occasion a Declaration on "Responsibility for raw materials: transparency and sustainable growth" was adopted. Several national and international initiatives, both from the private or the institutional sectors, arised to address the sustainable development of the extractive industry and the reduction of its environmental footprint. Meanwhile, the extractive industry is facing increasing environmental and societal pressures, being regulatory or not, during all phases of a project, from exploration to exploitation and closure. The social acceptability of a project is among the major key issues to be dealt with. EO-MINERS scientific and technical objectives are to: - assess policy requirements at macro (public) and micro (mining companies) levels and define environmental, socio-economic, societal and sustainable development criteria and indicators to be possibly dealt using EO - use existing EO knowledge and carry out new developments on demonstration sites to further demonstrate the capabilities of integrated EO-based methods and tools in monitoring, managing and contributing reducing the environmental and societal footprints of the extractive industry during all phases of a mining project, from the exploration to the exploitation and closure stages - contribute making available reliable and objective information about affected ecosystems, populations and societies, to serve as a basis for a sound “trialogue” between industrialists, governmental organisations and stakeholder

Partners:

N	Partner Legal Name	Country
1	BUREAU DE RECHERCHES GEOLOGIQUES ET MINIERES	FR
2	NATURAL ENVIRONMENT RESEARCH COUNCIL	UK
3	TEL AVIV UNIVERSITY	IL
4	DEUTSCHES ZENTRUM FUER LUFT - UND RAUMFAHRT EV	DE
5	WUPPERTAL INSTITUT FUR KLIMA, UMWELT, ENERGIE GMBH.	DE
6	GEOLOSKI ZAVOD SLOVENIJE	SI
7	Mineral Industry Research Organisation	UK
8	COUNCIL FOR GEOSCIENCE	ZA
9	Anglo Operation Ltd	ZA
10	UNIVERSITE DE VERSAILLES SAINT-QUENTIN-EN-YVELINES.	FR
11	CESKA GEOLOGICKA SLUZBA	CZ
12	Sokolovská uhelná, právní nástupce, a.s.	CZ
13	Anglo American plc	UK
14	Anglo American Chile Ltda	CL

Activity Code: ENV.2009.4.1.4.1 **Funding Scheme:** CSA-SA **Duration (Months):** 36

Title: GEO Network for Capacity Building

Proposed EC Grant: 999.992 €

Abstract:

The purpose of the GEO Network for Capacity Building (GEO-Net-CaB) project is to create the conditions for the improvement and increase of the GEO capacity building activities and framework, with special emphasis on developing countries, new EU member states (and EU neighbouring states) and climate monitoring and will serve the bigger goal of improved effectiveness and efficiency of GEO capacity building for application in the GEO societal benefit areas. Coinciding with this purpose, successful brokerage with (potential) clients for earth observation products and services will be facilitated. The project will deliver the following output: 1.Capacity building needs in earth observation are identified (at a generic and global level, but with emphasis on the target regions). 2. Specifications for earth observation capacity buildings are described. 3. Resource providers are identified. 4.Sustainable brokerage between stakeholders (including resource providers) is established. 5. A mechanism to facilitate cooperation between stakeholders and providers is established. 6. A global base of technical expertise for education and training in earth observation is established (with emphasis on developing countries, new EU member states and climate monitoring). 7. Monitoring and evaluation mechanisms for determining the efficacy of GEO capacity building efforts are established. To achieve maximum impact demonstration projects will be carried out in Southern Africa, the French-speaking African region, Czechia and Poland, with spin-offs to EU neighbouring countries and Latin America and Asia. The project (with a duration of three years) will be carried out by a strong consortium of partners from the Netherlands, France, South Africa, Morocco, Czechia and Poland, supervised by an advisory board with worldwide representation and strong connections to GEO.

Partners:

N	Partner Legal Name	Country
1	STICHTING INTERNATIONAL INSTITUTE FOR GEO-INFORMATION SCIENCE AND EARTH OBSERVATION	NL
2	Centre National d'Etudes Spatiales	FR
3	INSTITUT DE RECHERCHE POUR LE DEVELOPPEMENT	FR
4	CENTRUM BADAN KOSMICZNYCH POLSKA AKADEMIA NAUK	PL
5	Karlova Universita, Prírodovedecká fakulta v Praze	CZ
6	COUNCIL FOR SCIENTIFIC AND INDUSTRIAL RESEARCH	ZA
7	Centre Régional Africain des Sciences et Technologies de l'Espace - LF	MA
8	Umvoto Africa pty ltd	ZA

Activity Code: ENV.2009.4.1.4.1 **Funding Scheme:** CSA-SA **Duration (Months):** 24

Title: GEO capacity building initiative in Central Asia

Proposed EC Grant: 576.516 €

Abstract:

Central Asia is an important Europe's partner facing critical environmental challenges. Possessing certain experiences and capabilities of EO data application for solving environmental, economic, societal and other development problems, this region is better prepared for the uptake of GEOSS technologies than many other clusters of developing countries. Thus, the goal of SEOCA is to promote European GEO-techlogies in the region of Central Asia as a platform solution for the regional development challenges. In order to achieve this goal, the following activities will be implemented: - mapping of regional needs, capabilities, stakeholders, providers and planning further GEO CB activities in the region for the period until 2020 - pilot GEO capacity building programme incl. training for stakeholders, reforming educational standards, direct brokerage between stakeholders and providers, etc. - setting up regional network of GEO offices in all 5 countries - pilot regional GEONETCast network - systemic dissemination and networking activities aimed at promoting GEOSS technologies in the region, building synergies with other relevant initiatives. As a result the consortium expects that SEOCA will radically increase acceptance of GEOSS technologies by regional governments for national environmental services, meteorology, natural hazards prevention, geological explorations, etc. Moreover, the project will lay a foundation for long-term GEO CB activities in the region

Partners:

N	Partner Legal Name	Country
1	Technical University Berlin	DE
2	Engineering, Consalting and Management Office	DE
3	TUBITAK UZAY, Uzay Teknolojileri Arastirma Enstitusu	TR
4	JeoDijital Bilisim Teknoloji Madencilik Insaat Sanayi ve Ticaret Limited Sirketi	TR
5	Aratos Technologies S.A.	EL
6	GIRAF PM Consultants	DE
7	Hydrometeorological Research Institute of the Centre of Hydrometeorological Servise on Cabinet of Ministers of the Republic of Uzbekistan	UZ
8	The State enterprise “Center of remote sensing and GIS technologies”	UZ
9	Tashkent State Technical University named after Abu Raikhman Beruni	UZ
10	Joint-stock company “The National Center of Space Researches and Technologies”	KZ
11	L.N. Gumilyov Eurasian National University	KZ
12	Agency of hydrometeorology on the Ministry for Emergency Situation of the Republic of Kyrgyzstan	KG
13	State Agency of hydrometeorology of the Republic of Tadjikistan	TJ
14	National Institute of Deserts, Flora and Fauna of the Ministry of Nature Protection of Turkmenistan	TM

Activity Code: ENV.2009.4.2.1.1 **Funding Scheme:** NOE **Duration (Months):** 54

Title: Linking Impact Assessment Instruments to Sustainability Expertise

Proposed EC Grant: 6.996.406 €

Abstract:

Existing research points out that the full potential of Impact Assessment (IA) for delivering sustainable development is not being realised. Many tools to support IA are not yet being fully employed by policy makers. This is symptomatic of a large and deep gap between the two broad communities of IA researchers and IA practitioners. Practitioners tend to look for tools that are simple and transparent while the researchers are more interested in the sophistication and innovative aspects of assessment tools. The main purpose of LIAISE is to identify and exploit opportunities to bridge between these two communities in a way that leads to an enhanced use of IA tools in policy making. Its centrepiece will be a shared toolbox – simultaneously accessible and useful for policy makers as well as for the research community. The LIAISE consortium will: • Unite the multi-disciplinary competences of a core of large European institutes, that in turn consolidate the expertise from large FP6 projects. • Combine researchers that analyse current policy needs and link them in innovative ways to those who maintain and develop IA tools; • Develop a roadmap towards a virtual centre of excellence on IA, that can operate as the durable hub of existing academic and practitioner networks relevant to the themes of the NoE; • Maintain the flexibility to support 'real life' IA processes, informed by a structured dialogue with the IA user community; • Develop a business plan to ensure durable operation, scientific credibility and efficient usability of the shared toolbox, also in the post-project period. Resulting in: • A shared toolbox: a durable and flexible infrastructure to support IA with improved tools; • A continuously updated shared research agenda; • Capacity building and training components to spread the results of research activities to target groups in communities of IA users and IA researchers; • A virtual centre of excellence on IA

Partners:

N	Partner Legal Name	Country
1	ALTERRA B.V.	NL
2	FREIE UNIVERSITAET BERLIN	DE
3	ARISTOTELIO PANEPISTIMIO THESSALONIKIS	EL
4	NATURAL ENVIRONMENT RESEARCH COUNCIL	UK
5	FONDAZIONE ENI ENRICO MATTEI	IT
6	AARHUS UNIVERSITET	DK
7	ESTONIAN INSTITUTE FOR SUSTAINABLE DEVELOPMENT,STOCKHOLM ENVIRONMENT INSTITUTE TALLINN CENTRE	EE
8	SUOMEN YMPARISTOKESKUS	FI
9	FUNDACION LABEIN	ES
10	RHEINISCHE FRIEDRICH-WILHELMS-UNIVERSITAET BONN	DE
11	UNIVERSITY OF EAST ANGLIA	UK
12	HELMHOLTZ-ZENTRUM FUER UMWELTFORSCHUNG GMBH - UFZ	DE
13	WAGENINGEN UNIVERSITEIT	NL
14	LEIBNIZ-ZENTRUM FUER AGRARLANDSCHAFTSFORSCHUNG (ZALF) e.V.	DE
15	ZENTRUM FUER EUROPAEISCHE WIRTSCHAFTSFORSCHUNG GmbH	DE

Activity Code: ENV.2009.4.2.3.1 **Funding Scheme:** CP-FP **Duration (Months):** 48

Title: Assessing the role of economic instruments in policy mixes for ecosystem services and biodiversity conservation (POLICYMIX)

Proposed EC Grant: 3.459.102 €

Abstract:

POLICYMIX aims to contribute to achieving the EUs goals of reversing trends in biodiversity loss beyond 2010 through the use of cost-effective and incentive-compatible economic instruments. POLICYMIX focuses on the role of economic instruments in a mix of operational conservation policy instruments. To this end, POLICYMIX will develop an integrated evaluation framework that considers multiple policy assessment criteria – biodiversity and ecosystem service provision indicators; valuation of their economic benefit and policy implementation costs; social and distributional impacts; and legal and institutional constraints – at different levels of government. This multi-level approach is of paramount importance for effective biodiversity conservation policy given the overlap between ecological systems and systems of governance in practice. In particular, we evaluate the cost-effectiveness and benefits of a range of economic instruments vis-á-vis direct regulation through command-and-control in a variety of European and Latin American case studies. The suite of selected POLICYMIX case studies aims to provide complementary examples of innovative economic instruments such as Payments for Ecosystem Services (PES) and ecological fiscal transfers, and assess the possibilities for transfer of policy success stories, providing concrete learning possibilities for policy-makers. POLICYMIX actively uses advisory boards including land-users, local managers and national policy-makers, who collaborate with our researchers in the feasibility assessments of economic instruments. Based on this science-policy dialogue, POLICYMIX will develop a stepwise framework for carrying out policy assessment using available data, multi-criteria spatial targeting tools and tiered policy selection matrices. The POLICYMIX approach to policy design at multiple government levels is highly complementary with on-going EU ecological research on multi-scale conservation prioritization.

Partners:

N	Partner Legal Name	Country
1	STIFTELSEN NORSK INSTITUTT FOR NATURFORSKNING	NO
2	HELMHOLTZ-ZENTRUM FUER UMWELTFORSCHUNG GMBH - UFZ	DE
3	FUNDACAO DA FACULDADE DE CIENCIAS E TECNOLOGIA DA UNIVERSIDADE NOVA DE LISBOA	PT
4	Vrije Universiteit, independent entity of "Vereniging voor christelijk hoger onderwijs, wetenschappelijk onderzoek en patientenzorg" VU (IVM)	NL
5	International Institute for Environment and Development	UK
6	SUOMEN YMPARISTOKESKUS	FI
7	Pós-Graduacão de Ciencias Sociais em Desenvolvimento, Agricultura e Sociedade - Universidade Federal Rural do Rio de Janeiro	BR
8	Institute of Economics at the State University of Campinas	BR
9	Centro Agronómico Tropical de Investigación y Enseñanza	CR

Activity Code: ENV.2009.4.2.3.2 **Funding Scheme:** CP-FP **Duration (Months):** 36

Title: POLICY ADDRESSING CLIMATE CHANGE AND LEARNING ABOUT CONSUMER BEHAVIOUR AND EVERYDAY LIFE

Proposed EC Grant: 1.330.626 €

Abstract:

At the heart of this project lies the development, trialling and operationalisation of a tool (STAVE), designed to support the work of policy-making for sustainability in real-world settings. The tool will support processes of knowledge brokerage, promoting the appropriate application of existing research findings, and the generation of new knowledge which is focused on specific policy objectives. In substantive terms, the project responds to recent work on sustainable consumption, which has provided compelling arguments about the difficulties entailed in seeking to address anthropogenic climate change by attempting to shift patterns of consumer behaviour. The project will take the form of a series of collaborative problem-focused interventions with policy-makers which will engage with their current work in these areas. STAVE will allow these policy-makers to examine the nature and validity of assumptions about human sensibilities, reasoning and action that are incorporated into the development of policy. The project will yield detailed guidance on how best to utilise STAVE across a variety of organisational and policy-specific environments. It will also generate important insights into the mechanisms by which different sources of knowledge are utilised in the practical activity of policymaking; and into the nature of lay citizens' practical reasoning and everyday activities, as they relate to the sustainability of their patterns of consumption.

Partners:

N	Partner Legal Name	Country
1	CENTRO DE INVESTIGACIONES ENERGETICAS, MEDIOAMBIENTALES Y TECNOLOGICAS-CIEMAT	ES
2	UNIVERSITAT AUTONOMA DE BARCELONA	ES
3	CARDIFF UNIVERSITY	UK
4	UNIVERSITY OF SURREY	UK
5	LONDON SCHOOL OF ECONOMICS AND POLITICAL SCIENCE	UK
6	INSTITUT SYMLOG	FR
7	DIALOGIK GEMEINNUETZIGE GESELLSCHAFT FUER KOMMUNIKATIONS- UND KOOPERATIONSFORSCHUNG mbH	DE
8	Försvarshögskolan, Swedish National Defence College	SE
9	SC MedaResearch SRL	RO
10	AMPHOS XXI CONSULTING SL	ES

Activity Code: ENV.2009.4.2.3.2 **Funding Scheme:** CP-FP **Duration (Months):** 36

Title: Enhancing connectivity Between Research and Policymaking in Sustainable Consumption

Proposed EC Grant: 1.482.292 €

Abstract:

The project "CORPUS - Enhancing Connectivity Between Research and Policymaking in Sustainable Consumption" aims to develop novel approaches to knowledge brokering (KB) between policy-making and research. It will foster evidence-based policy-making at the example of sustainable consumption by applying and testing a combination of online and offline KB methods. It will stimulate community-building across the involved researchers and policy-makers to arrive at a self-sustaining process of knowledge management in sustainable con-sumption policies. The CORPUS Web Platform is to become a central reference point for high quality information and networking among European professionals working with sustainable consumption. It will provide a space for incubating and nurturing knowledge to be shared among researchers and policy-makers through private domain, and scientific results to be disseminated in the public domain, and a transparent, effective interaction (dialogue) between scientists and policy-makers. The Interaction Exercises in three priority areas of sustainable consumption (food, mo-bility, housing) will explore novel modalities of knowledge brokerage through different forms of face-to-face dialogues. They provide specifically tailored arenas for personal exchange, infor-mation provision, and offline community-building. Since community-building is crucial for successful and ongoing knowledge exchange, a sepa-rate work package is dedicated to building of relationships, governing the network, and stimulat-ing engagement of participants. Another work package provides resources for initial fine-tuning and recurrent adaptations of the process and ensures the transferability of the projects results by systematically reflecting the empirical experiences against the background of knowledge management theory. Related to that, a built-in evaluation further enhances continued learning on the knowledge brokerage approach taken within CORPUS.

Partners:

N	Partner Legal Name	Country
1	INSTITUT FUR OKOLOGISCHE WIRTSCHAFTSFORSCHUNG GmbH -IOW	DE
2	Bundesministerium für Land- und Forstwirtschaft, Umwelt- und Wasserwirtschaft	AT
3	COPENHAGEN BUSINESS SCHOOL	DK
4	Danish Topic Centre on Waste	DK
5	VRIJE UNIVERSITEIT BRUSSEL	BE
6	Planète Publique	FR
7	The Regional Environmental Center for Central and Eastern Europe	HU
8	STRATEGIC DESIGN SCENARIOS SPRL	BE
9	STATENS INSTITUTT FOR FORBRUKSFORSKNING	NO
10	WIRTSCHAFTSUNIVERSITAT WIEN	AT
11	Ministry of the Environment	FI

Activity Code: ENV.2009.5.1.0.1 **Funding Scheme:** CSA-SA **Duration (Months):** 36

Title: Scoping China's Environmental Research Excellence and major Infrastructure: Foresight, Potentials, and Roadmaps

Proposed EC Grant: 993.233 €

Abstract:

SPRING is a supporting action under EU FP7 Environment theme, with the main objective of creating and providing a solid basis for future EU-China collaboration in environmental research. SPRING will identify common needs and opportunities, analyse potential topics of research cooperation and initiatives, map competences and potentials of Chinese research organisations and major infrastructure, investigate strategic development plans and initiate roadmaps for future collaborations.SPRING will analyse the hurdles, barriers, and cornerstones that need to be addressed to enable better research engagement by EU researchers to China, and vice versa. It will improve the visibility of research initiatives and strengths of Chinese regions to a wider audience in Europe. The project will create and maintain a web portal that will serve as a bilateral contact point, showcasing past projects and present project, and also update strategic plans for EU-China cooperation.

Partners:

N	Partner Legal Name	Country
1	THE UNIVERSITY OF EXETER	UK
2	Applied Research and Communications Fund	BG
3	Center for International Climate and Environmental Research - Oslo	NO
4	TSINGHUA UNIVERSITY	CN
5	Chinese Research Academy of Environmental Sciences	CN
6	China Institute of Water Resources and Hydropower Research	CN
7	Tianjin University	CN
8	UNIVERSITY OF BRISTOL	UK
9	PEKING UNIVERSITY	CN

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

Title: Mountain Sustainability: Transforming Research into Practice, regional development, new communication tools

Proposed EC Grant: 847.000 €

Abstract:

The goal of mountain.TRIP is to provide stakeholders, end-users and practitioners with readily accessible and understandable forms of research-based information relevant to sustainable development in mountain regions. Mountain.TRIP will start where other EU projects have finished, translating research findings into useful information and developing relationships between users and researchers. EU research projects generally focus on elucidating truths, not on communicating these truths to practitioners or the interested public. Research projects often produce valuable results, methods, tools and instruments, but at the end of the project neither time nor money remain to disseminate these results among practitioners and to the interested public. Furthermore, research results usually exist in forms recognized by the research community but not easily or quickly assimilated by communities of practice. Mountain.TRIP will close the gap that currently exists between EU project findings and the needs of policy- and decision-makers, stakeholders in economy and environment, planners and administrators, non governmental organisations, end-users, and other members of groups representing the interests of citizens and industry of the most important mountain regions of Europe. Mountain.TRIP will not just disseminate research results but will rather synthesize results from multiple EU projects while adapting the format of that synthesis through continuous interaction with practitioners to meet their needs. The project uses multiple innovative mechanisms to ensure effective interaction with practitioners.

Partners:

N	Partner Legal Name	Country
1	OESTERREICHISCHE AKADEMIE DER WISSENSCHAFTEN	AT
2	UNIVERSITAET BERN	CH
3	UNIWERSYTET JAGIELLONSKI.	PL
4	ECOLOGIC - INSTITUT FUER INTERNATIONALE UND EUROPAEISCHE UMWELTPOLITIK gGmbh	DE
5	Euromontana	FR
6	Perth College	UK

Activity Code: ENV.2009.5.1.0.2 **Funding Scheme:** CSA-SA **Duration (Months):** 49

Title: KNOwledge from Science to SOcitieS

Proposed EC Grant: 868.500 €

Abstract:

KNOSSOS seeks to address the gap between science and society in the field of environmental research with a focus on policy makers and civil society, who are the main recipients of the project. We propose to take stock of available research results that are useful for policy-making. KNOSSOS will then add a knowledge management system, with innovative tools to guarantee fast and easy access to relevant information. This initial phase will also yield collaborative workshops on evidence-based policy making and training for policy makers in the field of environmental research. KNOSSOS puts an emphasis on disseminating research findings beyond Europe: through a number of 'Knowledge Fairs' as side events of international conferences, but also by including DG Research findings in one of the world's largest collections of Environmental Science Research, the Online Access to Research in the Environment (OARE). In order to ensure swift uptake of European environmental research into policy making, KNOSSOS, with its partner The Club of Rome, will issue monthly policy briefs for European, national and international policy makers. Aiming for enhanced visibility of European environmental science, KNOSSOS will appoint Environmental Science Ambassadors to the EU member states, endowed with a mission to raise public awareness about emerging environmental issues. KNOSSOS' strength lies in the composition of its consortium: UNEP, the world's leading environmental authority, joins forces with the Club of Rome, a renowned think tank with an strong reputation in giving policy advice; and with GLOBE EU/Europe, an excellent partner in training policy-makers and disseminating deliverables. KNOSSOS will have an impact on both policy makers and civil society in and beyond Europe. Our goal is to make European environmental science not only understandable, but also actionable and a preferred reference for all who seek information to pressing ecological questions of our time.

Partners:

N	Partner Legal Name	Country
1	United Nations Environment Programme	KE
2	The Club of Rome - European Support Centre	AT
3	GLOBE EU	BE
4	GLOBE Europe	BE

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

Title: European Marine Research Knowledge Transfer and Uptake of Results

Proposed EC Grant: 782.000 €

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:

N	Partner Legal Name	Country
1	AquaTT UETP Ltd	IE
2	EurOcean Foundation	PT

Activity Code: ENV.2009.5.1.0.2 **Funding Scheme:** CSA-SA **Duration (Months):** 36

Title: Conservation Genetic Resources for Effective Species Survival

Proposed EC Grant: 991.816 €

Abstract:

Genetic biodiversity is recognised by the Convention on Biological Diversity and the EC Biodiversity Strategy as one of three essential elements of living diversity, yet it is poorly represented at the policy level, compared to the two other components, species and ecosystems. The CONGRESS consortium aims to rectify this situation by delivering dissemination tools which European policy makers can conveniently use to incorporate genetic biodiversity into their policy framework. The six work packages of this project fall into two components, with WPs 1 – 5 concerned with the provision of a one-stop, community-enabled web portal, comprising 1) databases containing information on academics and professional end-users, relevant publications and genetic data for key European species (wild and domestic); 2) a simulation tool to allow biodiversity managers to assess the power of genetic data in highlighting processes which may result in genetic erosion; 3) a decision matrix module, which will allow end-users to establish the optimal policy and management options for a population, species or community, given the genetic data which have been produced; and 5) a knowledge pack and series of information leaflets, translated into the main European languages, which can potentially be assembled into a manual. The sixth WP comprises a series of dissemination and exchange workshops carried out across all regions of the European Union and including a transborder workshop and hands-on demonstration meeting in Eastern Europe. CONGRESS will integrate and enhance these work packages by using the workshops as forums for discussion of the contents of the portal and will be, from the outset, guided by an end-user advisory group drawn from throughout the EU, who will oversee the development of these tools and ensure their utility for the community who will benefit from them.

Partners:

N	Partner Legal Name	Country
1	CARDIFF UNIVERSITY	UK
2	CENTRE NATIONAL DE LA RECHERCHE SCIENTIFIQUE (CNRS)	FR
3	CONSEJO SUPERIOR DE INVESTIGACIONES CIENTIFICAS	ES
4	UNIVERSITY OF DURHAM	UK
5	FONDAZIONE EDMUND MACH	IT
6	UNIVERSITA DEGLI STUDI DI FERRARA	IT
7	ALBERT-LUDWIGS-UNIVERSITAET FREIBURG	DE
8	Københavns Universitet	DK
9	Koninklijke Maatschappij voor Dierkunde van Antwerpen	BE
10	STICHTING NATIONAAL NATUURHISTORISCH MUSEUM NATURALIS	NL
11	QUEEN MARY AND WESTFIELD COLLEGE, UNIVERSITY OF LONDON	UK
12	TURUN YLIOPISTO	FI
13	Institute of Vertebrate Biology - Academy of Sciences of the Czech Republic	CZ