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Community research

FP7 Cooperation Specific Programme

Theme 6: Environment (including climate change)

**Centro para el Desarrollo Tecnológico Industrial
CDTI
20 March 2007
Madrid, Spain**

**European Commission
Research DG
Directorate Environment
Environmental Technologies
Elena Domínguez**





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EU Funding programmes

- **Education**
 - Lifelong Learning Programme
- **Research- FRAMEWORK PROGRAMMES**
 - Seventh Framework Programme for research and development
- **Innovation**
 - Competitiveness and Innovation Programme
- **Structural and Cohesion Funds**



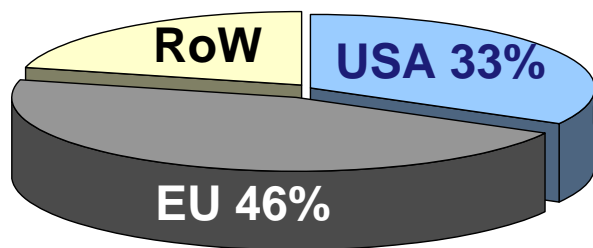


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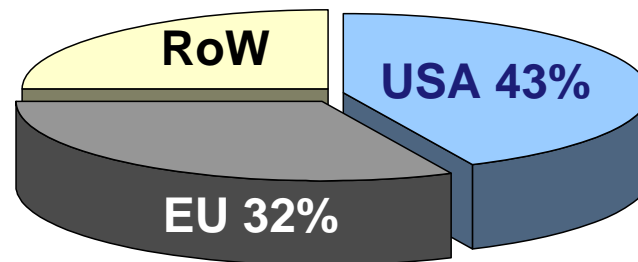
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EU research: quantity rather than quality

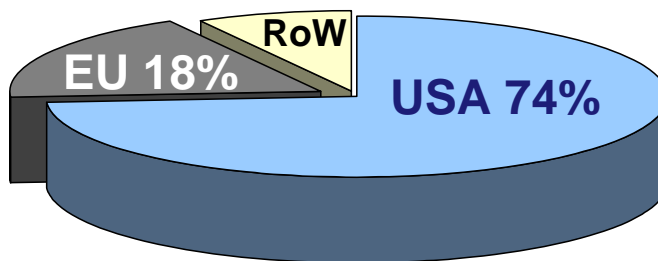
% of world scientific publications



% of citations



% of top 50 universities



Sources: UNESCO, Shanghai JT





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FP 6 European vs Spanish evaluation criteria


STREPs

Relevance	3/5 ~(17%)	24 (48%)	Historial científico del investigador principal y del resto del equipo de investigación
Potential Impact	3/5 ~(17%)	17 (34%)	Contribuciones científico-técnicas esperables del proyecto. Novedad y relevancia de los objetivos en relación con los objetivos de cada Convocatoria y al estado del conocimiento propio del área en el que se inscribe la solicitud
S&T Excellence	4/5 ~(17%)	9 (18%)	Viabilidad de la propuesta. Adecuación de la metodología, diseño de la investigación y plan de trabajo en relación a los objetivos del proyecto.
Quality of the Consortium	3/5 ~(17%)		Comentarios sobre la adecuación del presupuesto, el plan de difusión, la formación, otros.
Quality of the Management	3/5 ~(17%)		Observaciones confidenciales
Mobilisation of resources	3/5 ~(17%)		
Overall remarks			Curricula driven
Total	21/30	0/ 50	





FP7 /Collaborative projects Evaluation Criteria

1. S/T quality (in relation to the topics addressed by the call)	2. Implementation	3. Impact
<ul style="list-style-type: none">• Sound concept, and quality of objectives• Progress beyond the state-of-the-art*• Quality and effectiveness of the S/T methodology and work plan* <p><i>* Collaborative projects</i></p> <p>3/5</p>	<ul style="list-style-type: none">• Appropriateness of the management structure and procedures• Quality and relevant experience of the individual participants• Appropriate allocation and justification of committed resources*• Quality of the consortium as a whole* <p>3/5</p>	<ul style="list-style-type: none">• Contribution to impacts listed in the work programme under relevant topic/activity• Appropriateness of dissemination and/or exploitation of projects results, management IPR* <p>3/5</p> 



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Who evaluates proposals

How to become evaluator for FP7

Cooperation

- The Commission invites individuals to apply as prospective independent experts in order to be included in its database of experts for the Seventh Framework Programme
- <http://cordis.europa.eu/emmfp7>





FP7 /Budget breakdown non-nuclear research

- Total budget: 50.521 million € (current prices)
- Indicative breakdown:

2006	2007	2008	2009	2010	2011	2012	2013
5.044	5.082	5.579	6.119	6.932	7.968	8.925	9.913

- In 2013 expenditure 75% higher than in 2006
- 60% increase compared to FP6
- Sharp increase only from 2011



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FP7 Cooperation programme (collaborative research)

10 Themes

M€

1. Health	6 100/628	19 April
2. Food, agriculture & fisheries and biotechnology	1 935/192	2 May
3. Information Society and Communication Technologies -> ICT	9 050/1019	8 May
4. Nanosciences, nanotechnologies, Materials & new Production technologies -> NMP	3 475/364	4May1st
5. Energy	2 350/237	3 May
6. Environment (including climate change)	1 890/200	2 May
7. Transport (including aeronautics)	4 160/229	3 May
8. Socio-economic sciences & the humanities	623/58.5	10 May
9. Security	1 400/34.5	19 Jun
10. Space	1 430/80.3	31 May



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Upper funding limits

Eligible costs will be reimbursed accordingly to the type of action and/or activity

- **Research and technological development *activities*:** up to **50%** of eligible costs, or up to **75%** for:
 - *Non profit* public bodies
 - secondary and higher education establishments
 - research organisations
 - SMEs
 - Security related research, for highly reliable capabilities with impact on security of European citizens and targeted to a limited number of public users
- **Demonstration *activities*:** up to **50%**
- **Other *activities*** including management: up to **100%**





Funding rates Activities & Actions

Maximum reimbursement rates of eligible costs	Research and technological development (*)	Demonstration activities	Management of the consortium activities	Other activities (**)
Network of excellence	50% 75% (***)		100%	100%
Collaborative project	50% 75% (***)	50%	100%	100%
Coordination and support action			100% (****)	100% (****)

(*) Research and technological development includes operational activities directly related to the protection of foreground and coordination of research activities.

(**) Other activities means any "specific activity" covered by Annex I.

(***) For *beneficiaries* that are non profit public bodies, secondary and higher education establishments, research organisations and SMEs

(****) The reimbursement of indirect eligible costs, in the case of coordination and support actions, may reach a maximum 7% of the direct eligible costs, excluding the direct eligible costs for subcontracting and the costs of reimbursement of resources made available by third parties which are not used on the premises of the beneficiary.



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Some terminology

FP6 *vs* FP7

- “Contract” becomes “Grant Agreement”
- “Contractor” becomes “Beneficiary”
- “Instruments” become “Funding Schemes”
- “Audit certificate” becomes “Certificate on Financial Statement”





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Calls for proposals

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In the spotlight

ICT

[Visit the Information & Communication Technologies website](#)

Last updated on: 2007-01-03

Cooperation **Ideas** **People** **Capacities** **Euratom** **JRC**

Latest News
FP7 takes off
[Date: 2007-01-02]

The EU's largest ever funding programme for research and technological development, the Seventh Framework Programme (FP7), was launched on 1 January. [read more](#)

>> [more news](#)

Forthcoming Events

- [Potochnik and Schavan to open Germany's FP7 launch event](#)
Bonn, Germany
[Event Date: 2007-01-15]
- ['Infoweek' launches FP7](#) Switzerland
[Event Date: 2007-01-16]

What type of user are you?
The Seventh Framework Programme (FP7) is designed to support a wide range of participants... [read more](#)

Private company
Public organisation
Individual researchers
Outside the EU

Highlights

- [Calls for proposals under the provisional work programmes of the EC FP7 and the EURATOM FP7](#)
- [Call for proposals for organisations and individuals to establish database of FP7 experts](#)

What's next

- **International Cooperation and People calls** expected to be published next

[To follow the FP7 approval process view our flow chart](#)

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Recently Published Calls

- **Cooperation:** 2006-12-22: [FP7-AAT-2007-RTD-1](#), [FP7-AAT-2007-TREN-1](#), [FP7-ENERGY-2007-1-RTD](#), [FP7-ENERGY-2007-2-TREN](#), [FP7-ENV-2007-1](#), [FP7-ERANET-2007-RTD](#), [FP7-ERARESORG-2007-1-RTD](#), [FP7-HEALTH-2007-A](#), [FP7-ICT-2007-1](#), [FP7-ICT-2007-C](#), [FP7-KBBE-2007-1](#), [FP7-NMP-2007-CSA-1](#), [FP7-NMP-2007-LARGE-1](#), [FP7-NMP-2007-SMALL-1](#), [FP7-NMP-2007-SME-1](#), [FP7-SEC-2007-1](#), [FP7-SPACE-2007-1](#), [FP7-SSH-2007-1](#), [FP7-SST-2007-RTD-1](#), [FP7-SST-2007-TREN-1](#) and [FP7-TPT-2007-RTD-1](#)
- **Ideas:** 2006-12-22: [ERC-2007-StG](#)
- **People:** 2006-12-22: [FP7-PEOPLE-2007-1-1-ITN](#), [FP7-PEOPLE-2007-2-2-ERG](#), [FP7-PEOPLE-2007-4-3-IRG](#), [FP7-PEOPLE-2007-5-1-1-NIGHT](#) and [FP7-PEOPLE-2007-5-2-AWARDS](#)
- **Capacities:** 2006-12-22: [FP7-INCO-2007-1](#), [FP7-INCO-2007-4](#), [FP7-INFRASTRUCTURES-2007-1](#), [FP7-REGIONS-2007-1](#), [FP7-REGIONS-2007-2](#), [FP7-REGIONS-2007-3](#), [FP7-REGPOT-2007-1](#), [FP7-REGPOT-2007-2](#), [FP7-REGPOT-2007-3](#), [FP7-REGPOT-2007-4](#), [FP7-SCIENCE-IN-SOCIETY-2007-1](#), [FP7-SME-2007-1](#), [FP7-SME-2007-2](#) and [FP7-SME-2007-3](#)
- **Euratom:** 2006-12-22: [FP7-Fission-2007](#)

Search

Search term(s):

Call type :

- ☒ Call for proposal
- ☐ Call for tender
- ☐ Competitive call
- ☐ Call for expressions of interest

Activity Areas' Calls

Cooperation

- Health
- Food, Agriculture and Fisheries, and Biotechnology
- Information and Communication Technologies
- Nanosciences, Nanotechnologies, Materials and new Production Technologies
- Energy
- Environment (including Climate Change)
- Transport (including Aeronautics)
- Socio-economic sciences and Humanities
- Space
- Security
- General Activities - Annex IV

Ideas

- ERC

People

- PEOPLE

Capacities

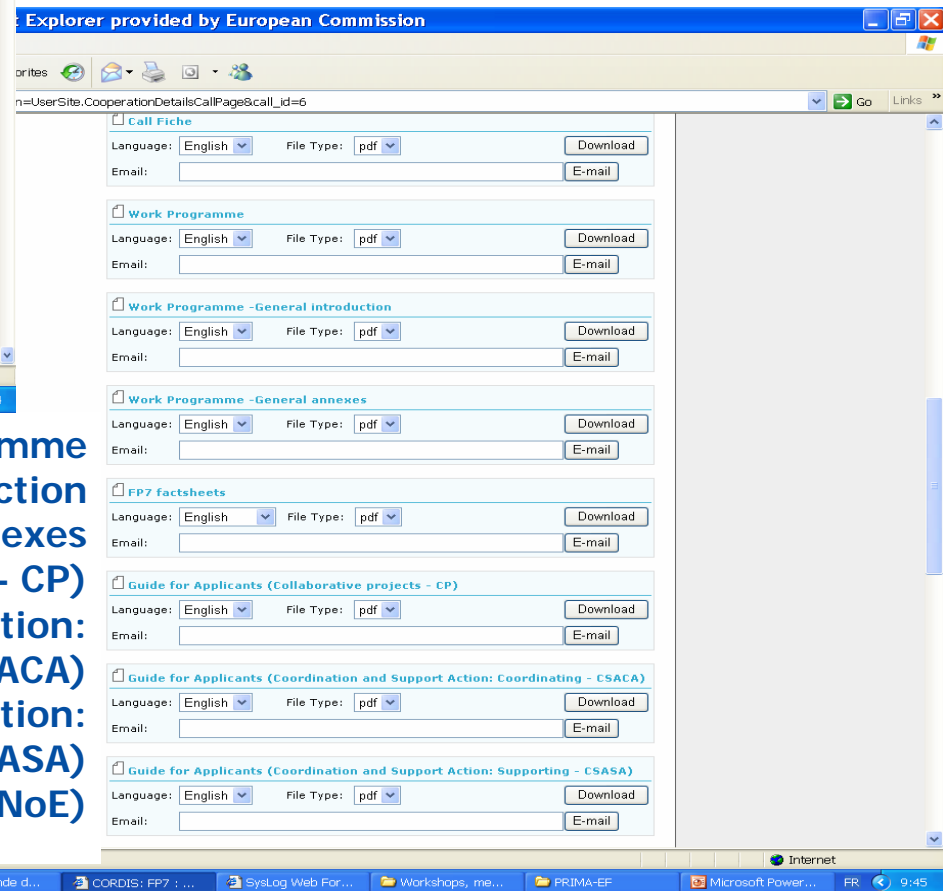
- Research Infrastructures
- Research for the benefit of SMEs
- Regions of Knowledge
- Research Potential
- Science in Society
- Coherent development of research policies
- Activities of International

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Calls for proposals FP7ENV2007-1

~ 200 million €
dead line 2 May 2007



- Work Programme
- Work Programme - General introduction
 - Work Programme - General annexes
- Guide for Applicants (Collaborative projects - CP)
- Guide for Applicants (Coordination and Support Action: Coordinating - CSACA)
- Guide for Applicants (Coordination and Support Action: Supporting - CSASA)
- Guide for Applicants (Networks of Excellence - NoE)



FP7 /Budget breakdown

Environment (incl climate change)

- Total budget: 1.890 million € (current prices)
- Indicative breakdown:

2006	2007	2008	2009	2010	2011	2012	2013
225	224	229	233	246	281	318	356

- In 2013 expenditure 75% higher than in 2006
- Sharp increase only from 2011



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FP7 / Theme Environment Policy framework (1)

- ✓ ***Environmental Research to support International commitments such as:***
 - UN FCCC and Kyoto Protocol and Montreal Protocols
 - UN Convention on Biological Diversity
 - UN Strategy for Disaster Reduction
 - World Summit on Sustainable Development
 - Intergovernmental panel for Climate Change (IPCC)
 - Group on Earth Observations (GEO)





FP7 / Theme Environment Policy framework (2)

- ✓ ***Environmental Research to contribute to EU environmental policies such as:***
 - European Climate Change Programme II
 - 6th Environmental Action Plan and associated Thematic Strategies (*air, waste, marine, soil, pesticides, urban*)
 - Action Plans on *Environmental Technologies* and *Environment and Health*
 - European Directives/Regulations – Water Framework, REACH (chemicals), CAFE (air quality), INSPIRE (env. data)
- ✓ ***Environmental Research to contribute to EU policies such as:***
 - Sustainable Development Strategy, International cooperation, Space, Innovation, Health, Regional Development

FP7 / Theme Environment Policy framework (3)

FP 7 activities should integrate within the research activity itself, when relevant:

- ✓ Support to Policy / Unforeseen policy needs
- ✓ Dissemination activities (research-policy, science-society)
- ✓ International cooperation in particular with INCO countries
- ✓ Socio-economic dimension
- ✓ SME participation
- ✓ Cross thematic topics

Coordination of national programmes ERA-NET, Art. 169 can be part of the activities



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FP7 / Theme Environment

Preparation of the Work Programme

- **Consultation/ preparatory stage (February-July 2006)**
 - Advice, consultations, written inputs from external sources (AG, FP6 PC, TPs, other stakeholders)
- **Consolidation stage (July-Sept 2006)**
 - First consolidated draft
 - Review of horizontal, cross-thematic issues
 - Further consultations with AG and FP6 PC
- **Adoption stage (Oct-Dec 2006)**
 - Oct-Nov – Interservice Consultation
 - Nov-Dec – FP7 PC Consultation
 - Dec – Commission adoption, publication of calls

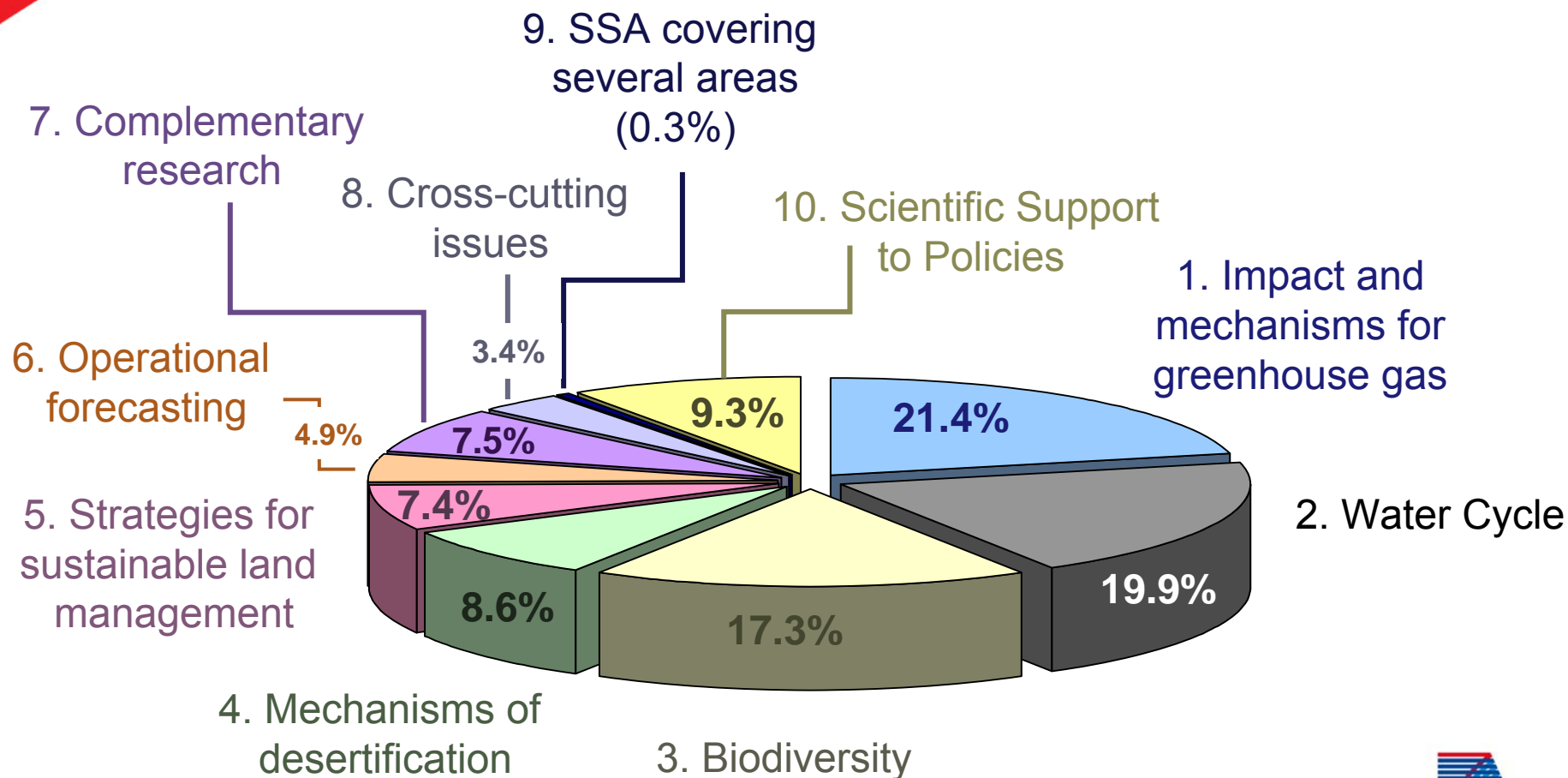




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Environmental research in FP6 & EU financial contribution



COOPERATION



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Environmental research in FP6 & EU financial contribution

1. Impact and mechanisms of greenhouse gas emissions and atmospheric pollutants on climate, ozone depletion and carbon sinks:	182.2 million €
2. Water cycle, including soil-related aspects:	169.4 million €
3. Biodiversity and ecosystems:	147.4 million €
4. Mechanisms of desertification and natural disasters:	73.6 million €
5. Strategies for sustainable land management, including coastal zones, agricultural land and forests:	63.2 million €
6. Operational forecasting and modelling including global climatic change observation systems:	41.9 million €
7. Complementary research:	63.8 million €
8. Cross-cutting issue: Sustainable Development concepts and tools:	29.0 million €
9. Specific support actions covering several areas (SSA)	2.2 million €
10. Scientific Support to Policies:	78.9 million €

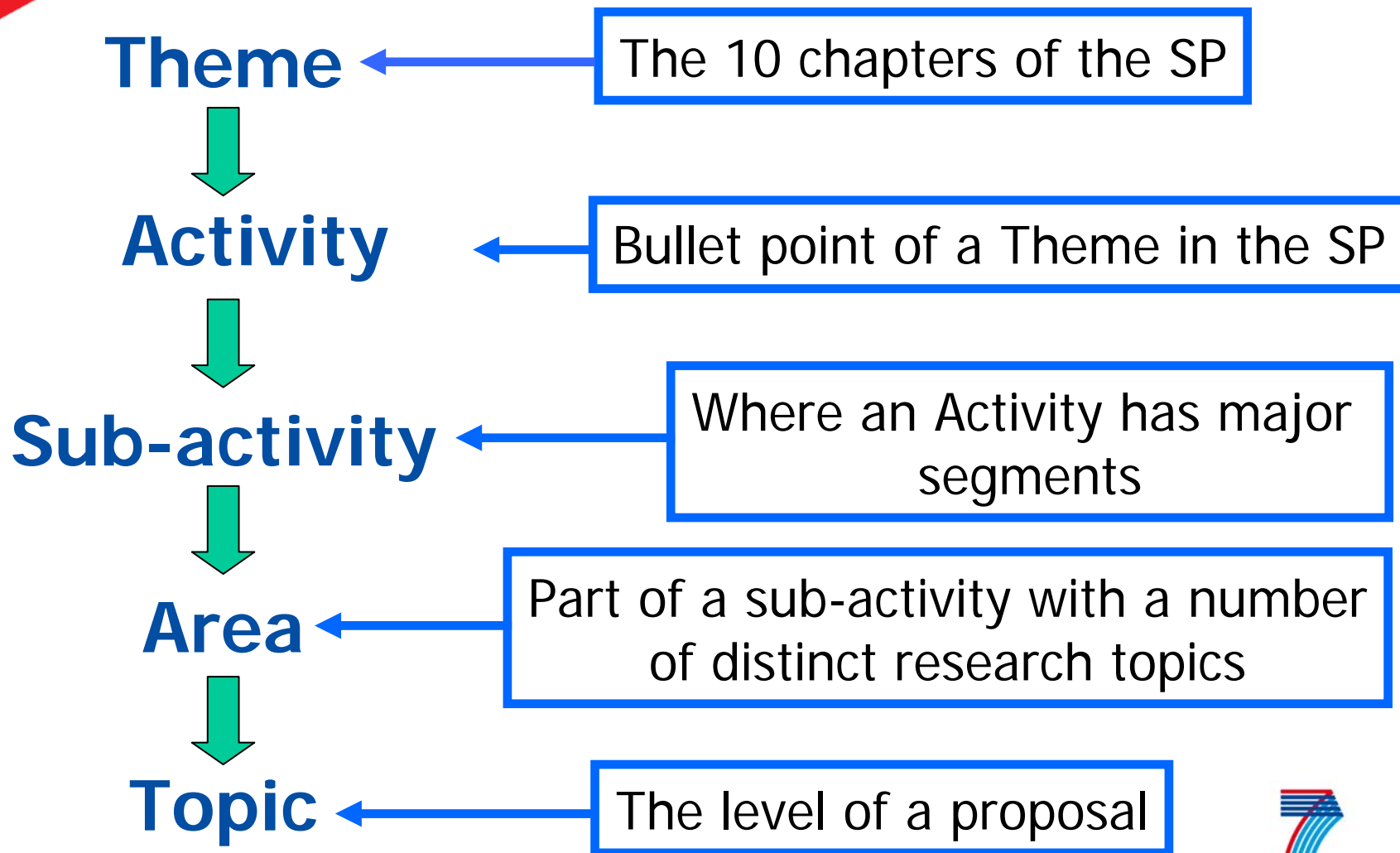




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Jargon Busting: Cooperation Environment





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FP7 / Theme Environment Structure

Activities

- Climate change, pollution and risks
- Sustainable Management of Resources
- Environmental Technologies
- Earth observation and assessment tools





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Environment (incl. Climate Change)

Activities

Sub-activities

Climate change, pollution and risks

- Pressures on environment and climate
- Environment and health
- Natural Hazards

Sustainable management of resources

- Conservation and sustainable management of natural and man-made resources & biodiversity
- Management of marine environments

Environmental technologies

- Technologies for observation, prevention, ... of the natural and man-made environment
- Protection ... of cultural heritage, human habitat
- Technology assessment, verification & testing

Earth observation and assessment tools

- Earth & ocean observation & monitoring methods for the environment and sustainable development
- Forecasting methods and assessment tools



Research topics description

Sub-activity 6.3.3. Technology assessment, verification and testing

Indicative available budget: 5 M€

Area 6.3.3.1 Risk assessment of chemicals and alternative strategies for testing

ENV.2007.3.3.1.1 In-silico techniques for hazard-, safety-, and environmental risk-assessment

The objective is to improve in-silico techniques, including Quantitative Structure Activity Relationships (QSAR) models for environmental risk assessment focusing on the eco-toxicological endpoints which are of highest relevance for the Replacement and Reduction of animal use in chemicals safety testing. On the one hand in-silico techniques should be developed and validated as screening tools; on the other hand they should address well defined toxicological end points of relevance for “Intelligent Testing Strategies”. **(SME-relevant and Policy relevant topic)**

Funding scheme: collaborative projects (small or medium-scale focused research projects)

Expected Impact: Contribution to the implementation of the REACH regulation through a significant reduction of animal tests in the testing of chemicals.



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Activity 6.1. Climate change pollution and risks

Sub-activity 6.1.1. Pressures on environment and climate

SME INCO Cross-Thematic Dissemination Policy and emerging RELEVANCE

<u>ENV.2007.1.1.1.1. Stability of the ThermoHaline Circulation</u>	LS					
<u>ENV.2007.1.1.2.1. Megacities, air quality and climate</u>	SM					
<u>ENV.2007.1.1.3.1. Ocean acidification and its consequences</u>	LS					
<u>ENV.2007.1.1.5.1. Climate change impacts and adaptation strategies in water policies</u>	CSA					
<u>ENV.2007.1.1.5.2. Climate change impacts on vulnerable mountain regions</u>	LS					
<u>ENV.2007.1.1.5.3. Past and future climate change impacts in the Parana-Plata river basin of South America</u>	SM					

Funding scheme	Collaborative projects (large-scale integrating projects)	LS
	Collaborative projects (small or medium-scale focused research projects)	SM
	Coordination and support actions (coordinating or supporting type)	CSA
	Coordination and support actions (coordinating type)	CSAc
	Coordination and support actions (supporting type)	CSAs
	Grant to a named beneficiary	Grant
	Research for the benefit of specific groups or coordination and support actions (coordinating or supporting type)	RB/CSA





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Activity 6.1. Climate change pollution and risks

Sub-activity 6.1.1. Pressures on environment and climate

SME **INCO** **Cross-Thematic** **Dissemination** **Policy and emerging** **RELEVANCE**

<u>ENV.2007.1.1.6.1. Full costs of climate change</u>	SM					
<u>ENV.2007.1.1.6.2. Effectiveness of adaptation and mitigation measures related to changes of the hydrological cycle and its extremes</u>	SM					
<u>ENV.2007.1.1.6.3. Impact and feed-backs of climate policies on land use and ecosystems in Europe</u>	SM					
<u>ENV.2007.1.1.6.4. Exploitation and dissemination of climate change research results and public perception</u>	CSAs					

Funding scheme

Collaborative projects (large-scale integrating projects)	LS
Collaborative projects (small or medium-scale focused research projects)	SM
Coordination and support actions (coordinating or supporting type)	CSA
Coordination and support actions (coordinating type)	CSAc
Coordination and support actions (supporting type)	CSAs
Grant to a named beneficiary	Grant
Research for the benefit of specific groups or coordination and support actions (coordinating or supporting type)	RB/CSA





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Activity 6.1. Climate change pollution and risks

Sub-activity 6.1.2. Environment and health

SME INCO Cross-Thematic Dissemination Policy and emerging RELEVANCE

<u>ENV.2007.1.2.1.1. Indoor air pollution in Europe: an emerging environmental issue</u>	SM					
<u>ENV.2007.1.2.1.2. Environmental factors and their impact on reproduction and development</u>	SM					
<u>ENV.2007.1.2.2.1. European network on human biomonitoring</u>	NoE					
<u>ENV.2007.1.2.2.2. European cohort on air pollution</u>	LS					
<u>ENV.2007.1.2.2.3. Health impacts of drought and desertification including socio-economic aspects</u>	SM					
<u>ENV.2007.1.2.3.2. Geographical information systems in support for environment and health research</u>	CSA					





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Activity 6.1. Climate change pollution and risks

Sub-activity 6.1.3. Natural hazards

SME **INCO** **Cross-Thematic** **Dissemination** **Policy and emerging** **RELEVANCE**

<u><i>ENV.2007.1.3.1.1. European storm risk</i></u>	SM					
<u><i>ENV.2007.1.3.2.1. Frame for better vulnerability assessment</i></u>	SM					
<u><i>ENV.2007.1.3.3.1. Assessing and managing volcanic threat</i></u>	SM					
<i>ENV.2007.1.3.3.2. Harmonising avalanche forecasting, risk mapping and warning</i>	SM					
<u><i>ENV.2007.1.3.3.3. Investigating Europe's risk from droughts</i></u>	CSA					
<u><i>ENV.2007.1.3.4.1. European (multi) hazard database analysis</i></u>	CSAs					





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Activity 6.2. Sustainable management of resources

Sub-activity 6.2.1. Conservation and sustainable management of natural and man-made resources and biodiversity

SME **INCO** **Cross-Thematic** **Dissemination** **Policy and emerging** **RELEVANCE**

<u>ENV.2007.2.1.2.1. Assessing the ecological status of water bodies</u>	LS						
<u>ENV.2007.2.1.2.2. River basin twinning initiatives as a tool to implement EU initiatives</u>	SM						
<u>ENV.2007.2.1.2.3. Temporary water bodies management</u>	SM						
<u>ENV.2007.2.1.2.4. Integrated resource management in international co-operation partner countries</u>	CSAs						
<u>ENV.2007.2.1.3.1. Geographical transect approach to desertification</u>	LS						





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Activity 6.2. Sustainable management of resources

Sub-activity 6.2.1. Conservation and sustainable management of natural and man-made resources and biodiversity

SME **INCO** **Cross-Thematic** **Dissemination** **Policy and emerging** **RELEVANCE**

<u>ENV.2007.2.1.4.1. Contribution of biodiversity to ecosystem services</u>	SM					
<u>ENV.2007.2.1.4.2. Use of natural resources: the impact on biodiversity, ecosystem goods and services</u>	SM					
<u>ENV.2007.2.1.4.3. Biodiversity values, sustainable use and livelihoods</u>	SM					
<u>ENV.2007.2.1.5.1. Urban metabolism and resource optimisation in the urban fabric</u>	SM					





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Activity 6.2. Sustainable management of resources

Sub-activity 6.2.2. Management of marine environments

SME **INCO** **Cross-Thematic** **Dissemination** **Policy and emerging** **RELEVANCE**

<u>ENV.2007.2.2.1.1. Development of advanced ecosystem models methodologies for the management and sustainable use of resources</u>	LS					
<u>ENV.2007.2.2.1.2. Ecology of important marine species</u>	SM					
<u>ENV.2007.2.2.1.3. Habitat-marine species interactions in view of ecosystem based management in the deep-sea</u>	LS					
<u>ENV.2007.2.2.1.4. Dynamic of marine ecosystem in a changing environment</u>	LS					
<u>ENV.2007.2.2.1.5. Deep ocean geophysical and biological processes</u>	CSAc					





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Activity 6.2. Sustainable management of resources

Sub-activity 6.2.2. Management of marine environments

SME **INCO** **Cross-Thematic** **Dissemination** **Policy and emerging** **RELEVANCE**

<u>ENV.2007.2.2.1.6. Investigating life in extreme environments</u>	CSAc					
<u>ENV.2007.2.2.1.7. Promoting access to information across marine themes</u>	CSAs					
<u>ENV.2007.2.2.1.8. Fostering improved co-operation between marine science and the private sector</u>	CSAs					
<u>ENV.2007.2.2.1.9. Access to and recovery of marine data from previous FP projects</u>	CSAs					



Activity 6.3. Environmental technologies

Sub-activity 6.3.1. ET for observation, simulation, prevention, mitigation, adaptation, remediation & restoration of the natural and man-made environment

SME **INCO** **Cross-Thematic** **Dissemination** **Policy and emerging** **RELEVANCE**

<u>ENV.2007.3.1.1.1. Innovative technologies and services for sustainable water use in industries</u>	LS					
<u>ENV.2007.3.1.1.2. Technologies for measuring and monitoring networks</u>	SM					
<u>ENV.2007.3.1.2.1. Development and improvement of technologies for data collection in (digital) soil mapping</u>	SM					
<u>ENV.2007.3.1.2.2. Development of technologies and tools for soil contamination assessment and site characterisation, towards sustainable remediation</u>	SM					

SME INCO Cross-Thematic Dissemination Policy and emerging RELEVANCE



Sub-activity 6.3.1. Environmental technologies for observation, simulation, prevention, mitigation, adaptation, remediation and restoration of the natural and man-made environment

SME **INCO** **Cross-Thematic** **Dissemination** **Policy and emerging** **RELEVANCE**

<u>ENV.2007.3.1.4.1. Networking and preparatory action in view of control of mercury in industrial processes and products</u>	CSAc					
<u>ENV.2007.3.1.5.1. Low resource consumption buildings and infrastructure</u>	CSAc					
<u>ENV.2007.3.1.5.2. Performance indicators for health, comfort and safety of the indoor built environment</u>	CSAc					



Sub-activity 6.3.2. Protection, conservation and enhancement of cultural heritage including human habitat

SME **INCO** **Cross-Thematic** **Dissemination** **Policy and emerging** **RELEVANCE**

<i>ENV.2007.3.2.1.1. Damage assessment, diagnosis and monitoring for the preventive conservation and maintenance of the cultural heritage</i>	SM							
<u><i>ENV.2007.3.2.2.2. Consolidation and dissemination of results related to cultural heritage</i></u>	CSAs							



Sub-activity 6.3.3. Technology assessment, verification and testing

SME **INCO** **Cross-Thematic** **Dissemination** **Policy and emerging** **RELEVANCE**

<i>ENV.2007.3.3.1.1. In-silico techniques for hazard-, safety-, and environmental risk-assessment</i>	SM					
<u><i>ENV.2007.3.3.1.2. Defining of a long-term research strategy for the full replacement of animal tests for repeat dose systemic toxicity</i></u>	CSAc					



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Activity 6.4. Earth observation & assessment tools for sustainable development

Sub-activity 6.4.1. Earth and ocean observation systems and monitoring methods for the environment & sustainable development

SME **INCO** **Cross-Thematic** **Dissemination** **Policy and emerging** **RELEVANCE**

<u>ENV.2007.4.1.1.1. Monitoring of the carbon cycle at global level</u>	CSAc						
<u>ENV.2007.4.1.1.2. Contribution to a global biodiversity observation system</u>	SM						
<u>ENV.2007.4.1.2.1. Coordination of national earth observation programmes in view of their long-term integration and sustainability</u>	CSAc						
<u>ENV.2007.4.1.2.2. Contributing to the development of a worldwide network of in-situ observatories for seismogenic hazards</u>	SM						
<u>ENV.2007.4.1.2.3. Dissemination and broadcasting of scientific data and information</u>	CSAs						





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Activity 6.4. Earth observation & assessment tools for sustainable development

Sub-activity 6.4.1. Earth and ocean observation systems and monitoring methods for the environment & sustainable development

SME **INCO** **Cross-Thematic** **Dissemination** **Policy and emerging** **RELEVANCE**

<u>ENV.2007.4.1.3.1. Application of Earth Observations to environmental and health issues</u>	CSAs					
<u>ENV.2007.4.1.3.2. Monitoring the ocean interior, seafloor, and subseafloor</u>	SM					
<u>ENV.2007.4.1.3.3. Development of a Global Soil Observing System</u>	SM					
<u>ENV.2007.4.1.4.1. Georesource information system for Africa</u>	CSAs					
<u>ENV.2007.4.1.4.2. Improving observing systems for water resource management</u>	SM					
<u>ENV.2007.4.1.4.3. GEONETCast applications for developing countries</u>	CSAs					
<u>ENV.2007.4.1.5.1. Support to the 2007 activities of the GEO Secretariat</u>	Grant					





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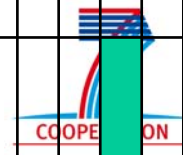
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Activity 6.4. Earth observation & assessment tools for sustainable development

Sub-activity 6.4.2. Forecasting methods and assessment tools for sustainable development taking into account different scales of observaion

SME **INCO** **Cross-Thematic** **Dissemination** **Policy and emerging** **RELEVANCE**

<u>ENV.2007.4.2.1.1. Methodologies for scaling down to the regional and local level the analysis of policy impacts on multifunctional land uses and the economic activity</u>	SM					
<u>ENV.2007.4.2.1.2. Improved tools to analyse the sustainable development implications of the EU financial perspective revision (2008-2009)</u>	SM					
<u>ENV.2007.4.2.1.3. Tools for impact assessment of sustainable development policies in international collaboration partner countries</u>	SM					
<u>ENV.2007.4.2.2.1. Bridging mainstream indicators of economic performance with sustainable development objectives</u>	SM					
<u>ENV.2007.4.2.3.1. Policies to promote sustainable consumption patterns</u>	SM					
<u>ENV.2007.4.2.3.2. Engaging civil society in research on sustainable development</u>	RB/ CSA					





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Activity 6.5. Horizontal actions

Sub-activity 6.5.1. Dissemination and horizontal activities

SME **INCO** **Cross-Thematic** **Dissemination** **Policy and emerging** **RELEVANCE**

<u>ENV.2007.5.1.1.1. Transnational co-operation among NCPs</u>	CSAc						
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References in OJ

Calls: OJ C316 22 December 2006

FP7: OJ L412 30 December 2006

Euratom: OJ L400 30 December 2006

SPs: OJ L400 30 December 2006

Rules: OJ L391 30 December 2006 (EC)
OJ L400 30 December 2006 (Euratom)





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Further information

EU research:

<http://europa.eu.int/comm/research>

Seventh Framework Programme:

http://europa.eu.int/comm/research/future/index_en.cfm

Information on research programmes and projects:

<http://cordis.europa.eu/fp7>

RTD info magazine:

<http://europa.eu.int/comm/research/rtdinfo>

Information requests:

research@ec.europa.eu






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FAQs service

<http://ec.europa.eu/research/index.cfm?pg=enquiries&cat=x&lg=es>



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Inicio

Buscar

Navegar

- Índice
- Mapa del sitio

Pregunte

- Preguntas frecuentes
- Servicio de consultas

Reciba

- RSS

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ENV.2007.1.1.1.1. Stability of the Thermohaline Circulation

Integrated observation and process studies in key regions (e.g. the Arctic and sub-Arctic), modelling and palaeo-studies to assess the risk of the breakdown or sudden reduction of the thermo-haline circulation. Feedback with stability of ice-sheets in polar regions, changes and variability in atmospheric circulation and the hydrological cycle should be included. The participation of international cooperation partner countries (e.g. Russia) is encouraged. This topic is also a contribution to the International Polar Year.

Funding scheme: collaborative projects (large-scale integrating projects) (Community contribution from 4 up to 10 million Euros)

Expected impact: *Much improved quantification of the risk, time horizon and possible scenarios for Thermohaline Circulation breakdown and related abrupt/rapid climatic change; understand the influence of ice sheets melting on THC; predict the THC in the future.*

ENV.2007.1.1.2.1. Megacities and regional hot-spots air quality and climate

Impacts of air pollution from megacities and large air-pollution “hot-spots” in Europe and elsewhere. Integrated research on emissions, their local impacts with special emphasis on air quality and associated risks, and their regional to global impacts. Assessment of mitigation options and quantification of impacts from polluted air-masses on larger scale atmospheric dynamics (physics and chemistry, hydrological processes, long-range/hemispheric transport etc.) as well as other important feedbacks between air quality, climate and climate change. The participation of international cooperation partner countries is encouraged.

Funding scheme: collaborative projects (small or medium-scale focused research projects)

Expected impact: A better quantification of air quality, mitigation options and availability of more reliable tools for prediction of air pollution in cities. Support to EC Thematic Strategy on Air Pollution and Air Quality regulation. Better quantification on regional and global links between air pollution, climate and climate change necessary to underpin mitigation other policy initiatives.



ENV.2007.1.1.3.1. Ocean acidification and its consequences

Temporal and spatial changes of ocean acidification due to increasing CO₂ uptake. Quantification of the impacts of the acidification on marine biota and their physiology, and marine ecosystems. Feedback to the carbon and other key element cycles, to climate change and the Earth system over the next decades to centuries. Process and experimental studies and field work should be integrated in biogeochemical, ocean sediment, circulation and climate models.

Funding scheme: collaborative projects (large-scale integrating projects)

Expected impact: *Impacts of ocean acidification on ocean ecosystems and related feedback to the carbon cycle; determination of pH tipping points; a better understanding and description of the carbon cycle in coupled ocean-climate models.*

ENV.2007.1.1.5.1. Climate change impacts and adaptation strategies in water policies

The aim is to study European and international adaptation measures and strategies related to climate change impacts and how these are taken into account in water policies. The project should bring together scientific and policy experiences on the existing and/or missing links between climate change and water management. It will contribute to; the identification of research needs on climate change impacts on water cycle and resources; to the development and application of methodologies for adaptation measures to climate change; to the development of scenarios of water demand and to potential implementation on water policies. **(Policy relevant topic)**

Funding scheme: coordination and support actions (coordinating type or supporting type)

Expected impact: *To provide a coherent framework on adaptation strategies of climate change impacts on water. The project will also give the fundamentals on the European/international adaptation strategies that water policy has to take into account when considering climate change impacts. Furthermore, it will support the implementation of the EU water policy, including its relation to other sectors and policies, and the identification research gaps in the field.*



ENV.2007.1.1.5.2. Climate change impacts on vulnerable mountain regions

The impacts of climate change on physical, biological and socio-economic systems of mountain regions should be quantified from time periods covering next decades to a century including field campaigns and modelling studies. Emphasis should be given to water and energy supply, melting of glaciers, tourism, forestry and agricultural production, and services from semi-natural and natural (pristine) ecosystems. Research should also address the resulting social and economic impacts. Focus should be on regions with particularly high vulnerability in Europe and worldwide. Participation of international partner countries is encouraged.

Funding scheme: collaborative projects (large-scale integrating projects)

Expected impact: Identification of key criteria to identify sensitive mountain areas vulnerable to climate change taking into account sectors and impacts. Know-how and integrated models and methodologies to quantify climate change impacts that can be applied in different vulnerable mountain regions of the world.



ENV.2007.1.1.5.3. Past and future climate change impacts in the Parana-Plata river basin of South America

Observations and modelling studies at both regional and continental scale to quantify past and predict future climate changes and impacts in the Parana-Plata basin. Emphasis in climate change impacts should be given to floods, hydrological systems, land-use and agriculture, deforestation and needs to assess the social and economic implications. Adaptation measures to future climate risks and impacts should be also considered.

(Specific International co-operation action)

Funding scheme: collaborative projects (small or medium-scale focused research projects)

Expected impact: *Strengthening of the cooperation between European and South American multidisciplinary research communities by studying climate change impacts in a basin which largely involves the greater part of the population, economy, agriculture, hydropower production of the five major South American countries concerned.*

Improved prediction capacity of the climate change impacts, which will result in economic, environmental and social benefits for the region.

ENV.2007.1.1.6.1. Full costs of climate change 1/2

Quantification of damage, adaptation and mitigation costs for global emission scenarios including those that stabilize atmospheric concentrations covering countries important in international climate negotiations. This includes a coherent, up-to-date representation of socio-economic drivers. Emissions of reactive gases and, air pollutants as well as changes in land cover must be considered. Mitigation costs are to reflect (induced) technological change and need to include non CO2 greenhouse gases and sinks and consider recent abatement technologies. Emphasis should be on better estimates for damage and adaptation costs. Damage estimates are to include market damage, non-market damage, catastrophic events and damage related to changes in air-quality (co-benefits). Damage needs to be expressed in physical terms and, to the extent possible, monetary terms and needs to cover all relevant sectors. Explicit treatment of uncertainty is essential. Energy aspects need to be covered. The participation of international partners is encouraged. **(Policy relevant topic)**

Funding scheme: collaborative projects (small or medium-scale focused research projects)





Expected impact: *More complete, updated assessment of cost of mitigation, adaptation and damage of climate change, especially with respect to market and non-market damages, damages related to catastrophic events and damage due to changes in air-quality. Input to and support for EU policies on climate change in international negotiations and support for air pollution policy.*



ENV.2007.1.1.6.2. Effectiveness of adaptation and mitigation measures related to changes of the hydrological cycle and its extremes

Quantify the efficiency (cost and benefits) of current and novel adaptation and mitigation measures related to changes of the hydrological cycle and its extremes in Europe. Analysis of the social and economic implications. Develop (adaptive) management strategies (including considerations on resilience and mitigation measures) for risks caused by long term changes of the hydrological cycle taking into account economic and social pressures (e.g. population and GDP growth, land use) under current and future climate conditions.

Funding scheme: collaborative projects (small or medium-scale focused research projects)

Expected impact: *Quantitative assessment of the efficiency of current and future adaptation and mitigation measures to hydrological changes and related extremes in Europe. Support for EU and non-EU research activities and policies as a response to climate change, in particular on adaptation.*

ENV.2007.1.1.6.3. Impacts and feed-backs of climate policies on land use and ecosystems in Europe. 1/2

Research should assess the impacts of climate (and other sectoral) policies on land use and ecosystems and the resulting feed-back on the climate system. Regional climate models should be coupled with land use models to improve the representation of explicit biophysical and economic mitigation and adaptation strategies in agriculture and forestry. Improved methodologies should include explicit crop/trees growth models that have sufficient, sub-national spatial detail to estimate the responses and adaptation possibilities of crops and trees to both scenarios of extreme climate events and changes in weather patterns. Models should include scenarios for the distribution and pressures from socio-economic drivers with sufficient geographical details. Impacts of climate mitigation measures need to be covered with sufficient details on bioenergy sources and pathways. Research should help in assessing and evaluate the impacts of alternative policy scenarios and estimating the associated costs and benefits of the policies. **(Policy relevant topic)**

Funding scheme: collaborative projects (small or medium-scale focused research projects)





ENV.2007.1.1.6.3. Impacts and feed-backs of climate policies on land use and ecosystems in Europe. 2/2

Expected impact: *Assessment of the efficiency of current and future land use adaptation and mitigation processes, including carbon sinks and biomass/-fuel production. Identification of the adaptation induced by policies, in particular by the Common Agricultural Policy, Rural development Strategy, EU Forestry Strategy and Forest Action Plan, and in general EU policies on climate change.*

ENV.2007.1.1.6.4. Exploitation and dissemination of climate change research results and public perception

This action mainly organised as a large Conference should promote the exploitation of EU research results in the area of climate change, to discuss public knowledge and perception of research, and responses regarding the risks associated with climate change. This action will address adaptation to climate change, in particular concerning the possible and expected social impacts, the awareness of citizens to research results and society's preparedness. The conference will bring together actors from different disciplines.

Funding scheme: coordination and support actions (supporting type)

Expected impact: An in depth discussion on the exploitation and dissemination of research results related to climate change, the public knowledge and perception of the research results and suggestions for necessary related actions. The proposals should be able to demonstrate that they will be able to obtain the widest audience to the Conference through registered participants from different disciplines and through tl media, and that they will be able to obtain a wide and balanced participation for all European countries and beyond.



ENV.2007.1.2.1.1. Indoor air pollution in Europe: an emerging environmental health issue

The aim is to provide systematic information about indoor air pollutants across Europe and their potential long-term health impacts. The project will carry out epidemiological and toxicological studies on mechanisms linking exposure to indoor air pollution under different conditions and health effects, with special attention to pollutants specific to indoor air environments, vulnerable groups and multiple exposures. The studies can include innovative measurement strategies, sampling techniques, modelling and database building on concentration of indoor air pollutants.

Funding scheme: collaborative projects (small or medium-scale focused research projects)

Expected impact: *New mechanistic and pollutant concentration data, harmonised models and sampling approaches to estimate indoor air pollution and related health impacts, taking into account socio-economic factors. Improved risk assessment data (e.g., validated biomarkers), usable in regulation and biomonitoring, communicated to relevant stakeholders (e.g., city planning, construction). Support for policies such as the Thematic Strategy on Air Pollution, Thematic Strategy on Urban Environment, and Environment and Health Action Plan.*



ENV.2007.1.2.1.2. Environmental factors and their impact on reproduction and development

The aim will be to assess environmental influences on long-term reproductive health and developmental parameters using integrated environmental and health data. The issues of long latencies of effects following exposures at critical time points and interplay between multiple factors (e.g., mixtures of contaminants) should be considered. Developing tools of toxicogenomics and -proteomics including validated biomarkers should be integrated with statistical and modelling studies usable in biomonitoring and epidemiological studies (e.g., European wide parent-child birth cohort). Emphasis should be on contaminants with widespread potential for exposure and persistence. In vitro and animal models should be taken advantage of where possible. International collaboration beyond the EU will be encouraged. The role of gender should be taken into account.

Funding scheme: collaborative projects (small or medium-scale focused research projects)

Expected impact: *New mechanistic and toxicological data on how environmental contaminants affect long-term reproductive and developmental parameters including transgenerational effects. Policy support for the implementation of the Sustainable Development Strategy, the Environment and Health Action Plan and the Community Strategy on Endocrine Disruptors. The project should support improved risk assessment of endocrine disruptors.*

ENV.2007.1.2.2.1. European network on
human biomonitoring^[1]

The aim is to carry out activities to coordinate and harmonise research and protocols on data collection, methodologies and models, in view of integrating human biomonitoring data with health/environment monitoring data and to allow for extrapolation of human biomonitoring results with health effects. The project will include validation of precise and non-invasive biomarkers of exposure, effect, and susceptibility, and can include small-scale pilot studies. Account should be taken of recent initiatives in the field, including relevant pollutant selection, and it should support the aims of the EU Environment and Health Action Plan on human biomonitoring. It can propose priorities for exposure reduction strategies and should provide recommendations for consideration of ethical issues in the pilot study. **(Policy relevant topic).**

Funding scheme: network of excellence

Expected impact: Coordinated approach to human biomonitoring in Europe and development of validated biomarkers usable for human biomonitoring, discussed with relevant government bodies and regulatory authorities. Policy support for the implementation of the Environment and Health Action Plan, especially research aspects of Action 3 (human biomonitoring pilot project).

^[1] Please also see 'Health' theme Topic HEALTH-2007-2.1.1-1: Networking biobanking initiatives across Europe: developing standards and norms for existing and future human sample biobanks.

ENV.2007.1.2.2.2. European cohort on air pollution

The aim will be to increase our knowledge on especially long-term health effects caused by air pollution from different sources and to develop more reliable biomarkers of exposure and effect, usable in regulatory settings and biomonitoring. Particular vulnerable groups (children, elderly etc), genetic susceptibilities including gender and socioeconomic factors should be taken into account. Combined exposures (air pollution, noise, chemicals etc) should be considered and exposure models validated. Harmonised study protocols should be developed. Links to other international research initiatives are encouraged.

Funding scheme: collaborative projects (large-scale integrating projects)

Expected impact: *New and improved epidemiological and risk assessment data (e.g., validated biomarkers) that regulators can use, made available in the public domain. Policy support for the implementation of the Thematic Strategy on Air Pollution, Thematic Strategy on Urban Environment and the Environment and Health Action Plan.*

ENV.2007.1.2.2.3. Health impacts of drought and desertification including related socio-economic aspects

The aim is to use Geographic Information Systems (GIS) approaches to identify populations, especially those in the International Collaboration Countries around the Mediterranean basin, with potential exposure to environmental hazards resulting from drought and water scarcity including desertification and dust (storms). Exposure data will be linked to relevant disease outcomes, e.g., vector and waterborne diseases. The study shall consider the valuation of socio-economic factors such as those related to land use and urbanisation. Links should be established to ongoing research and other international activities, in particular those in support of the UN Convention to combat Desertification and the Global Earth Observation (GEO) initiative. **(Specific**

International co-operation action)

Funding scheme: collaborative projects (small or medium-scale focused research projects)

Expected impact: *New and improved data on human health and socioeconomic impacts of water scarcity caused by advancing desertification, communicated in easily accessible form in the public domain and discussed with governmental and non-governmental stakeholders for consideration for their own planning and adaptation/remediation strategies. Support to international initiatives such as GEO and the UN Convention to combat Desertification to solve emerging environmental issues at regional level*

ENV.2007.1.2.3.2. Geographical information systems in support for environment and health research

The aim will be to create a coordination action to explore how environmental and health data can be best used to produce risk maps for selected health outcomes by using high-resolution Geographic Information Systems (GIS) approaches, focusing mainly on ground observation. The project will stimulate epidemiological and statistical approaches for elucidating the geographic relationship between environmental risks and exposures and related diseases of high public health relevance. Statistical methods will be developed to account for uncertainty due to potential confounding factors, e.g., measurement errors and missing data. Interdisciplinary studies incorporating the expertise of biostatisticians, epidemiologists, environmental scientists, medical geographers and computer specialists will be necessary. **(Policy relevant topic)**

Funding scheme: coordination and support actions (coordinating or supporting type)

Expected impact: *New and improved methods to evaluate risks on selected environmental factors contributing to important environmental disease(s) through use of GIS technologies. Also in support for the implementation of Global Earth Observation System of Systems (GEOSS) initiative and the Environment and Health Action Plan.*

Storms trigger, on different spatial and temporal scales, natural hazards related to heavy wind, water, snow and ice precipitation, storm surges and landslides.

Research is needed to: analyse past Euro-pean storm events based on a homogeneous database of occur-rence and related socio-eco-nomic dam-ages, study key circulation structures and changes in dangerous storm occur-rence with size and time and their connection to climatological proxy indicators. Analyse and map storm related risks in sensitive European regions taking into account intensity, spatial extent, dura-tion, hazard interaction effects. Consider re-gional climate change impacts using output from related research activities. Contribute to the development of a prob-abilistic mapping and early warning and information system for the multiple risks triggered by storms, supporting long-term disaster reduction as well as timely relief operations.

Funding scheme: collaborative projects (small or medium-scale focused research projects)

Expected impact: *Capitalisation and integration of knowledge and know-how; enhanced capacity for disaster anticipation. Better identification, in interaction with key stakeholders, of the sensitive regions of Europe in order to enable preparedness.*

ENV.2007.1.3.2.1. Frame for better vulnerability assessment

For natural hazards and disasters, vulnerability related concepts are not yet well documented and quantitatively understood. A conceptual framework and appropriate methods are required to better assess vulnerability to hazards of society, and of built and natural environments. Capacity to assess social, economic and ecological damages has to be improved and key variables for the determination of vulnerability for the various elements at risk must be identified. Risk scenarios, with emerging indicators and indices, should be established, using a probabilistic approach where appropriate, accounting for uncertainties, depending both on the temporal and the spatial scale. Testing of the applicability of the vulnerability assessment scheme should also be explored. No specific hazard is suggested, proposers should justify the choice(s) made.

Funding scheme: collaborative projects (small or medium-scale focused research projects)

Expected impact: Achieve a standard approach for a better estimation and measure of vulnerability related to natural hazards; improved risk estimation and better promotion- of disaster resilience.

ENV.2007.1.3.3.1. Assessing and managing volcanic threat

The research work will contribute to the work of scientists and civil protection to enhance a common strategy to fight volcanic threat. Within a multidisciplinary context and capitalising on previous and ongoing research, the project should improve volcanic risk assessment and management capacities in justified active volcanic regions in and outside Europe. The project should develop common new methodologies, risk criteria, protocols, procedures and scenarios to evaluate and manage volcanic hazards and risks. Uncertainties, possible multi-risks effects need to be considered. The project should also improve tools and prevention methods useful for end users such as territorial planning, innovative risk mapping and help the development of mitigation guidance. Focused educational and information products should facilitate the dissemination of prevention/ protection action. **(Specific International co-operation action)**

Funding scheme: collaborative projects (small or medium-scale focused research projects)

Expected impact: *Enhance guidance for effective integrated approach toward volcanic risk. Advance state-of-the-art in harmonisation of approaches and protocols, acquisition of tools and methods to support alert and civil protection authorities and stakeholders, in Europe and outside Europe, especially in ICPC. Sharing and transfer of know how to threatened regions and support to the UN strategy for disaster reduction efforts.*

ENV.2007.1.3.3.2. Harmonising avalanche forecasting, risk mapping and warning

Assess the snow cover variability and its influence on the release probability of avalanches. Compare and improve statistical and modelling tools and forecasting systems. Develop harmonized and innovative hazards, vulnerability and risk mapping methodologies, interregional information systems and warning procedures for EU mountain regions. Develop coordinated risk assessment methods and procedures in the EU countries. Improve and develop common statistical methods for quantifying the uncertainty in hazard mapping and risk analysis. Develop methods to take into account the role of risk control measures in hazard zone mapping. Promote educational and training programmes in order to generate best practices, guidelines and common procedures and expertise.

Funding scheme: collaborative projects (small or medium-scale focused research projects)

Expected impact: Improved rationalisation and enhance coordination of the scientific approaches towards avalanches forecasting and risk management capacity in the mountain regions of Europe. Improvement of the prevention strategies that will be of direct use for end users such as civil protection authorities.

ENV.2007.1.3.3.3. Investigating Europe's risk from droughts

Establish a network to assess the state of the art in research related to droughts in Europe, to identify research needs as a contribution to the development of a European drought policy in regard to Europe's risks and vulnerability. Climate trends also should be taken into account. Analyse key studies and initiatives, within Europe and in relevant areas outside Europe, to assess and estimate the economic, social and environmental impacts of droughts. **(Policy relevant topic)**

Funding scheme: coordination and support actions (coordinating or supporting type)

Expected impact: Short to long term vision on the research needs and potential contributions to a European drought policy taking into account current climate change knowledge, social and economic implications and interactions with other policies. Provide information on possible impacts of droughts and guidance for stakeholders in the area of planning, implementation and scenarios.



ENV.2007.1.3.4. 1. European (multi) hazard database analysis

Analyse the different European/regional/national natural hazard databases. Provide information on the temporal period covered by each database on their information content and on data policy/access rights. Assess the compatibility of different databases. Identify weaknesses of current databases and provide suggestions for development of an EU-wide multi hazard database keeping in mind minimum accuracy, coverage and completeness standards. Identify and analyse relevant case studies and projects dealing with quantitative multi-hazard assessment enabling the analysis and development of best practices in this field.

Funding scheme: coordination and support actions (supporting type)

Expected impact: *Enable an exhaustive analysis of all existing and missing datasets and information necessary for disaster assessment; establishment of a conceptual structure that will help the natural hazards communities in their research efforts and in a long term perspective. Stimulate synergy and exchange with existing national efforts.*

ENV.2007.2.1.2.1. Assessing the ecological status of water bodies 1/2

Development of *methodologies, models, integrated indicators and multi-species metrics to be used in integrated assessment of the ecological status* of water bodies to evaluate and quantify the combined effects of pressures due to global change (land use, pollution, climate change) and catchment management measures. All surface water categories should be addressed, however, new data collection should focus on lakes, transitional and coastal waters.

Inter-calibration of methodologies used for biological quality assessment, definition of reference conditions and thresholds for ecological quality classes to promote EU-wide harmonisation in the area and to underpin the characterisation and status classification of the water bodies. Specific attention must be paid to uncertainties, their quantification and inclusion in the assessment of the current state of the water body and in the predicted outcomes of management measures including their cost-effectiveness.

(Policy relevant topic)

Funding scheme: collaborative projects (large-scale integrating projects)





ENV.2007.2.1.2.1. Assessing the ecological status of water bodies 2/2

Expected impact: *The research should contribute in a concrete way to the implementation of the Water Framework Directive and assist the member states to establish the programme of measures as foreseen by WFD and the subsequent assessment of these measures. Intercomparison of methodologies is expected in view of identifying the most relevant one(s) for a coherent implementation by all member states.*

ENV.2007.2.1.2.2. River basin twinning initiatives as a tool to implement EU water initiatives

Integrated water resources management research activities carried out on twinned catchments/river basins from Europe and catchments from international cooperation partners to underpin the implementation of Integrated Water Resources Management (IWRM) in these countries in compliance with EU Water Initiative objectives and Millennium Development Goals targets. **(Specific International co-operation action)**

Funding scheme: collaborative projects (small or medium-scale focused research projects)

Expected impact: Support to EU Water Initiative in the context of international cooperation. Such collaborations will have to pay particular attention to constructive engagement with the entire spectrum of societal actors. Accrued emphasis has to be placed on communicating the research process and its results to all societal actors to make the research policy relevant and enhance its impact. Target areas for the 2007 call: Africa and South America.

ENV.2007.2.1.2.3. Temporary water bodies management

Research on temporary water bodies, their spatial extent and their temporal dynamics in semi-arid (Mediterranean) and arid climatic/hydrologic conditions. Assessment of the role of temporary (ephemeral) water bodies in the dynamics of nutrients, toxic substances and organic matter. Assessment and management of flood risk for temporary (ephemeral) water bodies. The participation of Mediterranean Partner countries is encouraged.

Funding scheme: collaborative projects (small or medium-scale focused research projects)

Expected impact: Better understanding of the dynamics of temporary water bodies by researchers, water managers and environmentalists, research. S&T support to the development of integrated water resource management strategies by relevant national and regional authorities in line with the EU Water Framework Directive in geographical areas where these temporary water bodies play an important role in the aquatic systems.

ENV.2007.2.1.2.4. Integrated resource management in international co-operation partner countries

Contribution to the development and testing of innovative concepts for natural resource management including water, agriculture resource and energy resource, in developing countries with respect to safeguarding and or fostering economic development in a restricted biosphere. Contribution for developing integrated analytical approaches and decision support systems which should allow stakeholders and decision makers to meet the often contradictory challenge of integrated resource planning without compromising natural resources of future generations. Targeted countries for the 2007 call: Latin America. **(Specific International co-operation action)**

Funding Scheme: coordination and support actions (supporting type)

Expected impact: *Fostering participatory and constructively engaged international co-operation in the field of integrated resource management in order to support attaining the Millennium Development Goals (MDG) targets and the need to preserve and use resource in the most possible way and getting research results considered by the spectrum of societal actors in Latin American cooperation partner countries.*

ENV.2007.2.1.3.1. Geographical transect approach to desertification

Research should focus on development of protection and restoration methods, strategies and measures, as well as best practices, operational analytical methods and modelling studies to combat desertification and land degradation: 1)

Furthering knowledge of processes (geographical transect approach taking into account the links between physical and socioeconomic processes) in particular evaluating the costs and benefits of any measures that could be proposed and 2)

Knowledge transfer, addressing the stakeholders, including the institutional level.

(Specific International Co-operation Action).

Funding scheme: collaborative projects (large-scale integrating projects)

Expected impact: *S&T support to EU stakeholders and the relevant organisations in partner countries for developing and/or improving their strategies, planning and implementation plans against desertification and thus contribute directly to the UNCCD Convention for desertification, to the EU Soil Thematic strategy and to the science programme of the "Committee for Science and Technology (CST)" the mandate of which is to support scientifically COP (Conference Of The Parties) with information and advice on scientific and technological matters relating to combating desertification and mitigating the effects of drought*

ENV.2007.2.1.4.1. Contribution of biodiversity to ecosystem services 1/2

Understanding how biological diversity terrestrial, inland waters and marine - at European and international levels - contributes to ecosystem goods and services and to livelihoods. Based on major trends in biodiversity and patterns of species interactions, work should contribute to better understanding of the values of and human dependence on biodiversity, the implications of change, and an initial evaluation of the costs and social and environmental consequences of not halting biodiversity loss. In addition, it should be considered how these values can be realised through payments for ecosystem services (PES) such as habitats banking. Institutional contexts, cost and benefits of strategies to preserve, restore and use biodiversity in a more sustainable way should also be assessed. The topic is important in the context of European competitiveness and sustainable development in Europe and elsewhere because the loss of biodiversity will impact upon the provision of goods and services. Major economic sectors depending/impacting on biodiversity have to be considered (agriculture, forestry, fisheries, transport, trade, tourism, industry).

Funding scheme: collaborative projects (small or medium-scale focused research projects)





ENV.2007.2.1.4.1. Contribution of biodiversity to ecosystem services 2/2

Expected impact: Better quantification of the cost of losing biodiversity, e.g. in terms of products and services, use and non-use values, and ultimately in terms of reduced productivity and welfare. Increased understanding by researchers, regional planners and political and economic actors, including civil society organisations active in the economic sectors under consideration through public access to information should make it possible to develop inclusive management strategies that will protect or restore ecosystems and help maintain the provisions of the ecosystem services upon which economic competitiveness and welfare depend. Communicating research process and results in a constructively engaged way to the full spectrum of societal actors is of utmost importance to maximise its policy relevance and impact.

ENV.2007.2.1.4.2. Use of natural resources: the impact on biodiversity, ecosystem goods and services

1/2

Improve understanding of how the use of and trade in natural resources at European and international levels affects biodiversity (marine, inland waters and terrestrial), ecosystem goods and services and the resilience and resistance of ecological-economic systems, and develop or improve methods to measure and value biodiversity and ecosystem resilience and detect when ecosystems are approaching the limits of their natural functioning or productive capacity. Establish and improve mechanisms and methods to determine the sustainability of various intensities of use of components of biodiversity and of ecosystems. This topic complements the preceding one. It relates to competitiveness, which depends on the state of biodiversity and ecosystem. Results will be shared effectively with citizens and other societal actors in ways that facilitate general understanding and impact on social, economic and environmental planning and decision making. Participation of ICPC is encouraged.

Funding scheme: collaborative projects (small or medium-scale focused research projects)





ENV.2007.2.1.4.2. Use of natural resources: the impact on biodiversity, ecosystem goods and services

2/2

Expected impact: *Assessment of the impact of the use and abuse of natural resources on biodiversity, the ways in which systems (ecosystem services) may respond and how resource use could be made more ecologically sustainable. The results should allow governmental and non-governmental actors to discuss and develop viable policy options and should support their implementation. Results will have to be communicated effectively to citizens and other societal actors in Europe and in other parts of the world in ways that facilitate general understanding and impact on social, economic and environmental planning and decision making.*

ENV.2007.2.1.4.3. Biodiversity values, sustainable use and livelihoods 1/2

Increase knowledge of the cultural, social, spiritual, economic and other values of biodiversity. Improve understanding of public beliefs, perceptions, attitudes and preferences regarding biodiversity and the drivers of biodiversity change, and how they influence human behaviour and public policy. Improve and assess value-based strategies to promote sustainable livelihoods and lifestyles, and to reduce the vulnerability of livelihoods, while conserving and husbanding biodiversity and securing income to rural marginal areas. Improve understanding of and capacity to deal with conflict over the multifunctional uses and preservation of ecosystems and components of biological diversity, and contribute to the development of policy instruments and tools for conflict reconciliation. Understanding the link between loss of biological and cultural diversity at global and local levels. **(Specific International co-operation action)**
Funding scheme: collaborative projects (small or medium-scale focused research projects)



EUROPEAN
COMMISSION

Community research

ENV.2007.2.1.4.3. Biodiversity values, sustainable use and livelihoods 2/2

Expected impact: *Constructive engagement with a broad selection of social groups and their governmental and non-governmental representatives in order to enable serious consideration and uptake of information generated from this work to improve their capacity to design policies that take into account the true social (economic and non-economic) value of biodiversity.*



ENV.2007.2.1.5.1. Urban metabolism and resource optimisation in the urban fabric 1/2

Devising innovative strategies for decoupling the impact from resource use from economic development and optimising the urban planning and design in order to accommodate increasing demand for space and resources while reducing material and energy consumption. In an industrial ecology perspective, all relevant physical flows through European urban systems will be identified and the associated environmental impacts will be evaluated. The analysis will address the different scales (from regional to site level) and the effect of individual actors' perspectives and behaviour and more generally the economic, institutional and regulatory factors should also be assessed. Economic and institutional instruments to influence individual behaviour and relevant material flows will be evaluated with respect to the physical, environmental and socio-economic impacts.

Funding scheme: collaborative projects (small or medium-scale focused research projects)





ENV.2007.2.1.5.1. Urban metabolism and resource optimisation in the urban fabric 2/2

Expected impact: Contribution to the development of new strategies and tools for a more sustainable use of energy and materials in urban planning. These achievements should be considered by urban planners, infrastructure developers and social networks. This should lead to reducing wastes and saving raw materials, without impacting negatively on economic development and social welfare. Support to the implementation of the Thematic Strategies on the urban environment, sustainable use of resources and the prevention and recycling of waste and the related Directives is also expected.

ENV.2007.2.2.1.1. Development of advanced ecosystem models and methodologies for the management and the sustainable use of resources 1/2

Develop methodologies based on existing data and knowledge about ecosystem functioning, processes and patterns, aiming at conservation, sustainable management and exploitation of marine resources and their environment (ecosystem management approach). Data from different sources should be integrated, including oceanographic, geophysical, geological, sedimentary, hydrological, ecological, biological, microbiological, social and economic data. Synthesizing methodologies comprise dynamic models, indicator frameworks, inter-operable data management systems and public information systems. The project should also include synthesis of knowledge about social and economic impacts of different management strategies. The methodologies should serve as tools to support conservation, management and sustainable use of resources, including fish and their environment (ecosystem management approach). The knowledge synthesis should therefore include development of communication modalities which could operationalise knowledge on marine ecosystems in the public debate and in policy decision making. Participation of International Cooperation Partner Countries is encouraged.

Funding scheme: collaborative projects (large-scale integrating projects)



ENV.2007.2.2.1.1. Development of advanced ecosystem models and methodologies for the management and the sustainable use of resources 2/2

Expected impact: *An improved knowledge base for the conservation and sustainable use of marine ecosystems and their resources. Engagement with key governmental and non-governmental actors which lead to the development of innovative approaches and modern participatory management tools for the restoring and sustainable use of marine ecosystems and their consideration for practical implementation. This work should contribute to EU orientations in the field of marine Protection Strategy, the proposed Marine Policy, the Common Fisheries Policy and the international agenda for the rebuilding of degraded marine ecosystems by 2015 (Johannesburg Plan of Implementation) and more generally the protection of the Sea and the sustainable use of the Oceans.*

ENV.2007.2.2.1.2. Ecology of important marine species

Increase knowledge on the ecology and role (including life cycle) of commercially important marine species and/or groups of species with significant ecological functions (keystone species). Special attention should be given to the life cycle and the migration patterns which for some key species remain virtually unknown. The work should be done having in mind the need for developing conservation measures and restoration options of key species in their ecosystem context.

Funding scheme: collaborative projects (small or medium-scale focused research projects)

Expected impact: Public access in easily understandable formats to the knowledge base of scientists, fisheries manager, fishermen and civil society organisations involved in conservation efforts that are necessary to develop operational and innovative tools for the protection and/or a more sustainable use of the marine species. This research should contribute to the effective implementation of the EU Common Fisheries Policy and to the EU Environmental Policy.

ENV.2007.2.2.1.3. Habitat-marine species interactions in view of ecosystem based management in the deep-sea

The link between marine species, including fish and deep-sea habitats is still poorly known. A better understanding of this relationship is essential for the evaluation of the impact of marine protected areas on fisheries, within the broader framework of a regional ecosystem-based management approach. Research will focus in the first instance on: i) the identification and modelling of the ecosystem function of cold water coral reef habitats and description of the ecological interaction between reefs and fish species of commercial interest; ii) the assessment of quantitative and qualitative fisheries effects upon these habitats, and impact upon associated fish species and productivity. Participation of International Co-operation Partner Countries is encouraged.

Funding Scheme: collaborative projects (large-scale integrating projects)

Expected impact: Publicly accessible results in easily understandable presentations. Beyond the better understanding of deep-water ecosystems, this activity should expand the knowledge base for the implementation of an ecosystem approach to deep-sea fisheries management, as well as developing options by governmental and non-governmental actors for protection, governance and management of deep-sea resource, including fisheries.

ENV.2007.2.2.1.4. Dynamic of marine ecosystem in a changing environment 1/2

Investigate how marine ecosystems respond to and evolve with a changing environment. The scenarios to be considered should address in an integrated manner the main driving factors, essentially changes in climate patterns, ocean circulation, pollution, invasive alien species and ocean acidification (a particularly important process), as well as the impact of fisheries. The project will investigate the response of marine ecosystems to the combined effects of the many changing parameters and anthropogenic action e.g. acidification, eutrophication, temperature, light and nutrients, overfishing, invasive alien species. The focus should be on the consequences for marine organisms and population dynamics, the likely impacts on resource management, products and services

Funding Scheme: collaborative projects (large-scale integrating projects)



ENV.2007.2.2.1.4. Dynamic of marine ecosystem in a changing environment 2/2

Expected impact: *the research should improve the knowledge base on marine ecosystems and the way they are impacted by the many driving forces, either anthropogenic or natural. This should provide input to governmental and non-governmental actors in the development of innovative tools and strategies for the rebuilding degraded marine ecosystems, protection and the sustainable use of the sea and its resources, in the perspective of the ecosystem approach. It should also improve the knowledge base for protection and management scenarios aimed at reconciling the interests of the many economic groups benefiting from the marine resource (including coastal). The topic is in support to EU Marine Strategy and should consider the long-term ecological objectives. It is also relevant to the EU Maritime Policy and the EU Common Fisheries Policy.*



ENV.2007.2.2.1.5. Deep Ocean geophysical and biological processes

The work to be undertaken within the perspective of a “Deep-Sea Frontier” initiative should lead to providing fundamental knowledge in many domains ranging from history, monitoring and prediction of geohazards to sustainable exploration and options for the conservation and sustainable use of deep sea resources. The project will aim to develop the actions required to implement a fully functional European Deep-Sea Frontier Initiative based upon an agreed road map. The truly European Deep-Sea Frontier project could be launched at mid FP7 (at the earliest).

Funding scheme: coordination and support actions (coordinating type)

Expected impact:

An agreed road map capable of leading to the implementation of a fully functional European Deep-Sea Frontier Initiative. The networking of the various research communities – ocean drilling, ocean margins, underwater observatories, climate change - thereby enabling them to build and demonstrate the foundations required for integrated pan-European research to be undertaken into the complex and interlinked physical, geological, chemical, ecological, biological and microbial processes that take place in the deep sea.



ENV.2007.2.2.1.6. Investigating Life in Extreme Environment

Furthering the knowledge of life in extreme environments (including polar and extreme terrestrial environments). The information exchange and networking of the community involved with scientific activities in extreme environments should be improved in order to facilitate interactions between scientists, technologists as well as programmes and projects. Large scale multidisciplinary events (conferences, workshops, forums) should be organised regularly in order to build and maintain a dynamic European research community in the domain of investigating life in extreme environments.

Funding scheme: coordination and support actions (coordinating type)

Expected impact: Building and strengthening the interdisciplinary network of EU scientific institutions addressing Life in Extreme Environment, thereby facilitating interactions between them (and between the EU and the rest of the world). The development of a strategic research agenda and the required options to implement it. These actions should build the ERA in this emerging area of research. This work could also provide input to the development of the ERC priorities.



EUROPEAN
COMMISSION

Community research

ENV.2007.2.2.1.7. Promoting access to information across marine themes 1/2

Widely disseminate and provide easy access to all FP information of potential interest to the marine stakeholder community (public and private), in particular from FP6 and FP7. 1) promote communication between all marine actors involved in on-going FP projects and compile information on FP projects as required by the decision-makers; 2) give added value to the marine FP projects by the dissemination of information on their results; 3) enhance public outreach and education activities in the marine research domain.

Funding scheme: coordination and support actions (supporting type)





ENV.2007.2.2.1.7. Promoting access to information across marine themes 2/2

Expected impact: *This project should contribute to one of the primary recommendations of the recent Commission Green Paper “Towards a future Maritime Policy for the Union: A European vision for the oceans and seas” i.e.: “the EU could consider setting up a European Marine Observation and Data Network which would provide a sustainable focus for improving systematic observation (in situ and from space), interoperability and increasing access to data”. This action will contribute to this objective by putting dispersed information sources, with emphasis on research results, from various actors into a publicly accessible and analysable format, connect these actors with the public and private domain, including the educational sectors and reduce transaction costs for doing innovative research by building more effectively on existing (but often inaccessible) information.*

ENV.2007.2.2.1.8. Fostering improved co-operation between marine science and the private sector

It is clear that co-operation between marine scientists, the oil & gas industry and the telecommunication sector is growing. Such developments open up a new perspective for cooperation between the commercial sector and environmental R&D. The marine science community and the private sector should be encouraged to find areas of synergy where common initiatives can be developed, e.g. oceanography, underwater observatories, gas hydrates, data management and information services, etc.

Funding scheme: coordination and support actions (supporting type)

Expected impact: improved knowledge transfer (dissemination and exploitation) in order to implement innovative approaches aimed at protecting, restoring and/or using marine systems and resource in a more sustainable way. Direct involvement of the main stakeholders in the public and private sectors. An effective interface to the public and private sectors to enable widespread understanding and acceptance of marine science and private sector activities.

ENV.2007.2.2.1.9. Access to and recovery of marine data from previous FP projects

To investigate whether data from previously funded EC projects has been properly archived and maintained and whether this data is freely available. To identify the reasons why datasets may not have been maintained and whether any barriers to data access exist. Wherever possible, this project should recover and make available data that has not been made accessible or is no longer accessible.

Funding scheme: coordination and support actions (supporting type)

Expected impact: *The proposal for this activity is motivated by the recent Commission Green Paper "Towards a future Maritime Policy for the Union: A European vision for the oceans and seas". One of the primary recommendations of this Green Paper is that "the EU could consider setting up a European Marine Observation and Data Network which would provide a sustainable focus for improving systematic observation (in situ and from space), interoperability and increasing access to data". This action will contribute to this objective by providing increased free and easy data access in a stable long-term institutional context.*

ENV.2007.3.1.1.1. Innovative technologies and services for sustainable water use in industries 1/2

This large-scale action should aim at the development and implementation of new, reliable and cost-effective 'clean' water technologies for helping European industries to reduce water use, mitigate environmental impacts, and better manage health and safety risks, while improving their product quality and process stability. Proposals should consider adaptive solutions, within an integrated water resources management approach, which include monitoring, information management systems and cross-sectoral technologies for reducing wastes and by-products (e.g. separation technologies). Issues of industrial cooling, scaling and (bio)fouling, and monitoring of critical compounds in process water streams should be given due consideration. Project consortia should consist of at least 50% of industrial partners representing various industries, inclusive of relevant SMEs, and at least 50% of the requested EC contribution should be in benefit of industrial partners. **(SME-relevant topic)**

Funding scheme: collaborative projects (large-scale integrating projects) (Community contribution from 4 up to 10 million Euros)





ENV.2007.3.1.1.1. Innovative technologies and services for sustainable water use in industries 2/2

Expected impact: *Substantial reduction of fresh water needs in the considered industrial processes and of effluent discharge to the environment. More efficient use of limited water resources by integrating process technologies in different industrial branches for cascades of water usage, towards closed water cycles, adapted to the quality requirements of different industries. Improved process stability and product quality by improved and/or more constant water quality.*

ENV.2007.3.1.1.2. Technologies for measuring and monitoring networks

Technologies to assess the chemical and ecological status of water bodies for cost-effective monitoring campaigns need to be developed. Priority will be given to miniaturised sensing systems and wireless network technology for the deployment of essentially self-sustaining wireless sensor networks aimed at spatial and temporal water quality assessment. Emphasis should be put on the development of stable chemo- and bio-sensors with low maintenance requirements. Hardware components comprising smart (bio)materials and microchip technologies for sensing a wide range of parameters - including those required for the Water Framework Directive reporting- are to be developed with supporting software applications. A relevant participation of industrial partners as well as of SMEs is requested. **(SME-relevant topic)**

Funding scheme: collaborative projects (small or medium-scale focused research projects)

Expected impact: Substantial reduction of labour-intensive field sampling and measuring campaigns as well as fewer errors during data collection and transcription of results. The temporally and spatially dense data provided by these technologies is expected to reveal previously unobservable phenomena. The action should lead to strengthening the European industrial competitiveness in this field.

ENV.2007.3.1.2.1. Development and improvement of technologies for data collection in (digital) soil mapping

Development, implementation and validation of new field, remote and proximal observation technologies capable to improve, accelerate and objectify the collection of soil data, allowing at the same time a non destructive approach. This action should provide improved technologies for measuring soil properties, including physical and hydrologic properties, capable to give information about several soil functions. Well known techniques, such as electromagnetic induction (EMI) or georadar, should be improved and validated, and other possible geophysical (such as magnetic or micro-seismic) and spectroscopic techniques should be explored. Data processing tools are needed for enhancement and correction of source data. The participation of industrial partners, and in particular of SMEs, is essential. The projects should support the implementation of the Soil Thematic Strategy. **(SME-relevant and Policy relevant topic)**

Funding scheme: collaborative projects (small or medium-scale focused research projects)

Expected impact: *Improvement of spatial analysis of soils and soil functions, in relation to indicators for degradation threats. A substantial improvement in technologies for acquiring soil data is expected in terms of spatial resolution, measurement precision, reliable correlation with main soil functions and operational/economical feasibility.*

ENV.2007.3.1.2.2. Development of technologies and tools for soil contamination assessment and site characterization, towards sustainable remediation

Technologies and tools for site characterisation and monitoring of contaminated soils should be improved including combinations of geophysical systems, chemical analysis, statistical analysis, biomarkers and/or modelling with particular attention to less-invasive (e.g. minimize drilling) and depth-oriented tools, to bio-availability of contaminants and to spatio/temporal heterogeneity of soils. Tools for detection of local, primary or secondary sources should be developed in view of more source-oriented sustainable remediation technologies. This action should foresee the participation of industrial partners, and in particular of SMEs. The projects should support the implementation of the Soil Thematic Strategy. **(SME and Policy-relevant topic)**

Funding scheme: collaborative projects (small or medium-scale focused research projects)

Expected impact: *Improvement in effectiveness of remediation/mitigation technologies for contaminated sites through a more favourable cost/benefit ratio of site characterisation and monitoring, and a more precise and reliable site characterisation and monitoring design. The projects should support the implementation of the Soil Thematic Strategy.*

ENV.2007.3.1.3.1. Development of integrated waste management technologies for maximising material and energy recovery/recycling of the organic (humid) fraction of municipal solid waste 1/2

Research activities on the integration between different processes for the treatment of biodegradable waste are needed, looking also at the potential consequences deriving from their large scale implementation on C balance and the release of greenhouse gases. The research shall cover processes treating source-separated biodegradable wastes as well as the organic (humid) fraction coming from a pre-treatment stage. The co-treatment of organic waste deriving from other sources may be also considered. It is requested the demonstration of at least five different integration schemes implemented in different European regions, accompanied by Life Cycle Assessment studies, Life Cycle Social analysis and externality/Life Cycle Costing analyses. LCA studies shall be ISO 14040 conform and data shall be provided according to data format and quality requirements set up by the European Platform for LCA. Other tools for process evaluation (e.g. entropy and exergy analysis, material and energy flow analysis, cost-effectiveness analysis, etc.) could be applied. Consortia should be constituted by a balanced mix of research institutions, industrial partners (with a relevant share of SMEs), municipalities and other end-users. **(SME-relevant and Policy relevant topic)**

Funding scheme: collaborative projects (large-scale integrating projects) (Community contribution from 4 up to 10 million Euros)





EUROPEAN
COMMISSION

Community research

ENV.2007.3.1.3.1. Development of integrated waste management technologies for maximising material and energy recovery/recycling of the organic (humid) fraction of municipal solid waste 2/2

Expected impact: *The results should provide solid "field data" to evaluate how the diversion targets foreseen in the Landfill Directive 99/31/EC can be reached in different regions of Europe. Improved knowledge on the environmental, economic, and social implications of source separation on the recovery/recycling of biodegradable waste. Increase of materials and energy recovery and GHG reduction by integration of different technologies.*



ENV.2007.3.1.3.2. New technologies for waste sorting 1/2

New/improved technologies for the sorting process of environmentally and economically important waste material flows (e.g. plastic polymers, WEEEs, Automotive shredder residues, etc.) need the implementation of new/improved automatic identification units, including sensors and measuring technologies for the quality assessment of sorted or unsorted fractions related to utilisation. A Life Cycle Assessment study (ISO 14040 conform), Life Cycle Social analysis and externality/Life Cycle Costing analyses shall be carried out. LCA data shall be provided according to data format and quality requirements set up by the European Platform for LCA. This action should foresee the participation of at least 50% (in terms of number of partners and budget) of industrial partners, with a relevant presence of SMEs. **(SME-relevant topic)**

Funding scheme: collaborative projects (small or medium-scale focused research projects)



ENV.2007.3.1.3.2. New technologies for waste sorting 2/2

Expected impact: *This action should contribute to improve the quality and homogeneity of the materials that have to be recovered, recycled or treated, being these key aspects in determining the final output of any waste-related process and the related environmental impacts. In case of thermal treatments for energy production, this should lead to a reduction of deposits and corrosion problems and an increase in energy efficiency. The evaluation of the impact of the proposed projects will be based on the quantitative and qualitative amelioration of the selected fluxes with respect to today's state-of-the-art technologies. The action should lead to strengthening the European industrial competitiveness in this field.*

ENV.2007.3.1.3.3. Networking and preparatory action in view of developing cost-effective, environmentally-safe waste treatment technologies and services adapted to the needs of developing countries, within a targeted life cycle approach 1/2

The need of appropriate and cost-effective technologies for developing countries, will be addressed through an action for networking among research centres, industries and end-users. The existing Environmental Impact Assessment methods and impact categories will be reviewed and assessed considering the peculiar geographical context. The feasibility of developing new specific impact categories and Life Cycle Impact Assessment methods will also be considered. The social and health related consequences of implementing new technologies for waste sorting and treatment in these regions should be properly considered and evaluated. This action should be focussed on Asian countries, where the fast-growing municipal waste generation is accompanied by an even more dramatic growth of industrial wastes (also considering those produced elsewhere but treated in this geographical area). **(SME-relevant topic - Specific International co-operation action)**
Funding scheme: coordination and support actions (coordinating type)





ENV.2007.3.1.3.3. Networking and preparatory action in view of developing cost-effective, environmentally-safe waste treatment technologies and services adapted to the needs of developing countries, within a targeted life cycle approach 2/2

Expected impact: *Significant contribution to strengthening of formal and informal networks existing in Asia on waste treatment. Substantial integration in these networks of new actors like local waste processors and regulators. Better understanding of the specific surrounding conditions (environmental, economic, and social) and potential consequences of the existing and proposed waste treatment technologies.*

ENV.2007.3.1.4.1. Networking and preparatory action in view of control of mercury in industrial processes and products

The Mercury strategy foresees a progressive ban of Mercury, already included among the Priority Hazardous Pollutants of the Water Framework Directive. There are a number of areas of concern about this pollutant to be explored, including safe disposal of existing and future mercury stocks, control of mercury emissions (e.g. coal-combustion and small scale gold mining), substitution of mercury in products and processes, etc.

This coordination action should help structuring the scientific and industrial communities and preparing the ground for future and more focused research projects by identifying the most appropriate and effective research needs in this field in the short to medium term. The participation of industrial partners, and SMEs, is essential. **(SME-relevant and Policy relevant topic)**

Funding scheme: coordination and support actions (coordinating type)

Expected impact: *The results of this research activity should provide scientific support to achieve the objectives of the mercury strategy, The identification of focused research needs in mercury will help to plan and prioritise research activities and resources in the short term, contributing to the phasing-out of this priority hazardous pollutant.*

ENV.2007.3.1.5.1. Low resource consumption buildings and infrastructure^[1]

1/2

This coordination activity aims at promoting and facilitating the uptake of new or improved technologies for the built environment which reduce the life-cycle environmental impact associated to the use of multiple, natural and non-renewable resources (water, primary raw materials, energy, land) and the generation of waste. The reduction of use of hazardous substances in the building sector is also to be considered. Analysis of case-studies across Europe, pre-normative research, standards, training needs, directives and regulatory framework, and policy recommendations should be considered together with non-technical barriers to the uptake of environmental technologies. Economic and institutional instruments to influence the choice of building and infrastructure technologies should be evaluated with respect to their potential physical and socio-economic impacts. This coordination action should serve as basis for establishing some consensus regarding further industrial research. **(SME-relevant and Policy relevant topic)**

Funding schemes: coordination and support actions (coordinating type)

^[1] This action will be executed in coordination with and complementary to the 'Nanosciences, Nanotechnologies, Materials and new production Technologies' – NMP Theme in relation to technologies for the built environment and cultural heritage.





ENV.2007.3.1.5.1. Low resource consumption buildings and infrastructure^[1]

2/2

Expected impact: *Promotion and uptake of sustainable environmental technologies for a resource efficient built environment. This coordination action should provide support for policy in line with the Directives on energy, pollution prevention, landfill, waste, etc*

ENV.2007.3.1.5.2. Performance indicators for health, comfort and safety of the indoor built environment^[1]

This coordination activity will help to enable the application of new design and technologies that improve the impact of the indoor built environment on health, comfort, feeling of safety and positive stimulation (including those for people with impaired cognitive, sensorial or motor capacity). For this, it will be necessary to review current standards across Europe. This will require firstly drawing up of an inventory of current performance indicators used in design and construction of the built environment and identifying areas where new indicators for health and safety (including accessibility and indoor environmental quality) should be developed. Finally, recommendations for design and technologies can be formulated. This coordination action should provide support for policy in the line with Directives on Construction Products (CPD) and on Energy Building Performance together with the European Environment & Health Action Plan. **(SME-relevant and Policy relevant topic)**

Funding schemes: coordination and support actions (coordinating type)

Expected impact: *Optimal, healthy and comfortable indoor environment integrated within a sustainable, low-energy built-environment.*

^[1] This action will be executed in coordination with and complementary to the sub-activity 'Environment and Health' of the Environment (including Climate Change) Theme, as well to the 'Nanosciences, Nanotechnologies, Materials and new Production Technologies' – NMP Theme in relation to technologies for the built environment and cultural heritage.



ENV.2007.3.2.1.1. Damage assessment, diagnosis and monitoring for the preventive conservation and maintenance of the cultural heritage^[1]

This action should deliver new or improved non destructive technologies for the damage assessment, diagnosis and monitoring of the cultural heritage. Each project should primarily focus on complex assemblies and not on individual materials. Where particular emphasis is given in a project to movable cultural heritage then due account should be given to its environment and the immovable heritage context in which it is to be found. Likewise, for a project focusing on the immovable heritage, due consideration should be given to its environment and the movable heritage that it may host. Cooperation among scientists, conservators, restorers, industry and SMEs should lead to guidelines for preventive conservation. The participation of Mediterranean Partner Countries, in particular, is encouraged. **(SME-relevant topic)**

Funding scheme: collaborative projects (small or medium-scale focused research projects)

Expected impact: *More cost-effective preventive conservation and maintenance, applicable to a wide variety of cultural assets and to different environmental conditions. The developed methodologies should be broadly accepted and used beyond the EU.*

^[1] This action will be executed in coordination with and complementary to the 'Nanosciences, Nanotechnologies, Materials and new production Technologies' – NMP Theme in relation to technologies for the built environment and cultural heritage.





ENV.2007.3.2.2.1. ERA-NET^[1] for the preservation of the tangible cultural heritage

This ERA-NET should aim to implementing the networking of research programmes in this field and provide an added value to existing National research programmes on cultural heritage through coordination. The action should give added value to the national activities implemented in this domain and set up an appropriate framework to coordinate them, complementing the European coordination already on-going for national activities in the field of intangible and digital heritage. This action should as well help to promote favourable educational, training and knowledge transfer, and facilitate the inclusion of cultural heritage protection in the EU legislation.

Funding scheme: coordination and support actions (coordinating type) (Community contribution up to 2 million Euros)

Expected impact: *The proposals should demonstrate how the coordination activities will prevent the duplication of efforts while improving complementarities and synergies, in application of article 151 of the EC Treaty, also for the harmonisation and acceptability of technologies and methodologies applicable to cultural heritage.*

^[1] This topic is subject to a joint call for ERA-NETs across the themes – See Annex 4 4

ENV.2007.3.2.2.2. Consolidation and dissemination of results related to cultural heritage

This action, mainly organised as a large European Conference in principle in 2008, should promote the exploitation and spin off of EU research results, through demonstration of new technologies tools and devices developed by the SMEs and industry in close cooperation with scientists and for benefit of end-users, conservators and restorers, managers and owners of the cultural patrimony. The proposer must be supported by the National Authorities of the EU country where the Conference will be held. The participation of Third Countries organisations is welcome.

Funding scheme: coordination and support actions (supporting type)

Expected impact: *Proposals should be able to demonstrate in a credible way how they will maximise the outreach of the variety of actions that they will propose, how they will be able to obtain the widest audience to the Conference through registered participants and through the media, and how they will be able to obtain a wide and balanced participation from all European countries and beyond.*

ENV.2007.3.3.1.1 In-silico techniques for hazard-, safety-, and environmental risk-assessment^[1]

The objective is to improve in-silico techniques, including Quantitative Structure Activity Relationships (QSAR) models for environmental risk assessment focusing on the eco-toxicological endpoints which are of highest relevance for the Replacement and Reduction of animal use in chemicals safety testing. On the one hand in-silico techniques should be developed and validated as screening tools; on the other hand they should address well defined toxicological end points of relevance for “Intelligent Testing Strategies”. **(SME-relevant and Policy relevant topic)**

Funding scheme: collaborative projects (small or medium-scale focused research projects)

Expected Impact: *Contribution to the implementation of the REACH regulation through a significant reduction of animal tests in the testing of chemicals.*

^[1] This action will be executed in co-ordination with and complementary to the 'Health' Theme within a common programme on Replacement, Reduction and Refinement of Animal Testing.

ENV.2007.3.3.1.2 Defining a long-term research strategy for the full replacement of animal tests for repeat dose systemic toxicity^[1]

In the long run a significant effort should be made to fully replace animals in the testing of chemicals, with focus on the development of alternative methods for the assessment of repeat dose systemic toxicity without compromising safety aspects. This extremely challenging long-term goal needs to be carefully planned through a number of high-level workshops and experts meetings in order to develop the corresponding long-term research programme. This should be achieved through a coordination activity, networking European and national activities on the subject. (**SME-relevant topic**)

Funding scheme: coordination and support actions (coordinating type)

Expected Impact: *This co-ordination action is expected to result in a focused European RTD programme with the long-term goal to phase out animal tests.*

^[1] This action will be executed in co-ordination with and complementary to the 'Health' Theme within a common programme on Replacement, Reduction and Refinement of Animal Testing.



ENV.2007.4.1.1.1. Monitoring of the carbon cycle at global level

To contribute to an effective monitoring of the carbon cycle at global level as recommended by GCOS in supporting the European participation to an international CO₂ research monitoring project. The research will contribute to building an integrated global approach that combine both remote and in-situ observations and to promote close collaboration with the international carbon cycle research community; The project should rely on existing European activities in the domain of CO₂ monitoring and bring them onto the global level through collaboration activities with similar projects in other continent/countries. As such the project should support the European activities needed to ensure a proper collaboration at global level and involve international partnership.

Funding scheme: coordination and support actions (coordinating type)

Expected impact: significant progress towards a global carbon observation system by linking the European Earth Observation research initiatives relevant to carbon cycle assessment with similar existing initiatives in other continents/countries as a contribution to GEO.



ENV.2007.4.1.1.2. Contribution to a global biodiversity observation system

Facilitate the European contribution to the development of a global biodiversity observation system that is spatially and topically prioritized, based on analysis of existing information, identifying unique or highly diverse ecosystems and those supporting migratory, endemic or globally threatened species, those whose biodiversity is of socio-economic importance, and which can support the strategy adopted for monitoring biodiversity trends in the UN Convention on Biological Diversity. The project should facilitate the development of the multi-institutional biodiversity observation network in collaboration with Global Biodiversity Information Facility and ensure that it links to data sets of ecological and other related observation systems in particular the LTER and LTSE networks. International Co-operation is encouraged.

Funding scheme: collaborative projects (small or medium-scale focused research projects)

Expected impact: significant progress towards a Global Biodiversity Observation System through collaboration between the European Earth Observation research initiatives relevant to ecosystems and species of merit with complementary initiatives in other continents/in as a contribution to GEO.



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Community research

ENV.2007.4.1.2.1. Coordination of national earth observation programmes in view of their long-term integration and sustainability

The aim is to foster collaboration between national research programmes in the domain of Earth Observation across several of the nine GEO societal benefit areas, in bringing together both in-situ and space observing systems. The action should develop and strengthen the coordination and collaboration between national and regional terrestrial, atmospheric, and oceanic observation programs collecting more specifically in-situ data. It should demonstrate a significant added value for the GEO societal benefit areas by increasing synergies between the terrestrial, atmospheric and oceanic observation programs and pave the way towards the long-term convergence, integration and sustainability of the observation programmes.

Funding scheme: coordination and support actions (coordinating type)

Expected impact: Prepare the ground for an integrated sustained European earth observing system with improved interoperability between existing observation systems, optimised information management and data sharing for understanding, modelling and predicting environment phenomena; availability of adequate data sets such as long time series, real-time data, including considering the geographic coverage needed in formats that facilitate access in the public domain for a wide range of users so that citizens, regulators, educators, companies etc. can use research results for a wide range of potential applications.

The action should in particular explore the feasibility of an ERA-NET for a latter



ENV.2007.4.1.2.2. Contributing to the development of a worldwide network of in-situ observatories for seismogenic hazards 1/2

To develop the European capacity in view of investigating earthquake mechanisms at depth close to the seismic source relying on previous European research activities on seismically active sites. The project should take into account the current development of the Network of Research Infrastructures for European Seismology (NERIES). Such a project should contribute to deliver the basic knowledge, including with respect to the role of fluids, through a cross-cutting approach for earthquake, and landslides, tsunamis and volcanic related events. Such a project should contribute to proceed with long term experimentation in connection with the establishment of a European in-situ seismic observatory located on a major active fault zone. In the GEO context the project should take into consideration other key subsurface seismic observatories situated on active sites around the world and organise the research activities together with those existing experiments outside Europe, and ensure the communication of data as well as their access and interoperability by the wider science community. International co-operation is encouraged.

Funding scheme: collaborative projects (small or medium-scale focused research projects)





EUROPEAN
COMMISSION

Community research

ENV.2007.4.1.2.2. Contributing to the development of a worldwide network of in-situ observatories for seismogenic hazards 2/2

Expected impact: *specification derived from basic knowledge on active seismic zone for the development of monitoring systems in seismogenic zones as required within GEO for multihazard seismogenic risks, interoperability between seismic monitoring systems, information management and data and optimisation of information for understanding, and modelling seismogenic zone.*





ENV.2007.4.1.2.3. Dissemination and broadcasting of scientific observation data and information

The project should enable identifying FP6/ FP7 initiatives willing to broadcast and disseminate research data. The goal of the action would be to operate through the project the dissemination and the broadcasting of the environmental data produced by various FP projects and to explore and develop a scheme through which the broadcasting and dissemination becomes sustainable. The project should rely on and network existing initiatives in the different sectors of environment dealing with data exchange and dissemination. The project should develop an approach which should be compatible with the one developed within GEO (Group on Earth Observation), focussing on relevant GEO Societal Benefit Areas.

Funding schemes: coordination and support actions (supporting type)

Expected impact: better availability and access to earth observation data and products made available through FP6/FP7 research projects



ENV.2007.4.1.3.1. Application of Earth Observations to environmental and health issues

To promote and explore in Europe the application of Earth observations, in particular the integration space-based observations with in-situ data, to improve human health as an emerging field in which GEO can facilitate significant progress by forging new connections between the Earth observation and health sectors at all levels. Activities should focus on: 1. Identifying and further refining human health user requirements for Earth observations; 2. Improving the Earth observation sector's understanding of these requirement; 3. Demonstrating the utility of Earth observations for human health needs; 4. Raising awareness of the availability and potential uses of Earth observations for human health.

Funding scheme: coordination and support actions (supporting type)

Expected impact: potential impact depends on the awareness, understanding and active participation of information users in governmental and non-governmental organisations in the definition and use of information in formats compatible with their operational modes. User needs will determine the development of European Earth Observation systems and related activities in the area of environmental and health needed for GEOSS where observing/monitoring systems are lacking or need to be significantly completed.

ENV.2007.4.1.3.2. Monitoring the ocean interior, seafloor, and subseafloor

To contribute to develop and bring into the global context the European contribution to observing and monitoring systems for the Ocean Water Column, Ocean Seafloor and Subseafloor. The project should rely on existing European initiatives such as MerSea, Eur-Oceans, ESONET, HERMES and international ones like ARGO in order to contribute to developing the global ocean observatory system together with other existing initiatives (for instance the Neptune one). The project should support and complement existing collaboration activities in order to add missing scientific components and partners, develop or improve common data exchange protocol, exchange of technical know-how and user requirement specification, respectively this aims to ensure an optimal use of the available resources and to optimise existing project strategies. This initiative should build upon existing science, engineering and financial plans to develop such a global system, working together with relevant participants from the private sector.

Funding scheme: collaborative projects (small or medium-scale focused research projects)

Expected impact: development of the European component of the Global Ocean interior Observation system and related activities needed for GEOSS where observing/monitoring systems are lacking or need to be significantly completed

ENV.2007.4.1.3.3. Development of a Global Soil Observing System

Conduct research activities needed for the European contribution to the completion of the World Soil and terrain database (SoTer) in view of developing the emerging global soil observatory. The project should build on already existing European contribution towards the above objectives in particular in view of filling the gaps occurring from different countries (e.g. developing countries). It should also include elaborating methods to analyse, quantify and record soil status with respect to the multiple pressures affecting soil ecosystems. The project should contribute integrating the European efforts in providing a regional pilot platform which would be linked to the World Soil and terrain database and other GEO relevant initiatives in involving the adequate international partnership, and in compliance with the objectives of the EU Soil Thematic Strategy.

Funding scheme: collaborative projects (small or medium-scale focused research projects)

Expected impact: development of European Earth Observation systems and related activities as a major component of a future Global Soil Observing System for GEOSS where observing/monitoring systems are lacking or need to be significantly completed.

ENV.2007.4.1.4.1. Georesource information system for Africa

To set-up the preparatory phase for the building of an information system containing and making available African Geological resources including groundwater, energy, raw material and mineral resources (georesources) that are/have been collected through numerous initiatives by both African countries, regional, international and European Organisations collectively, and are a unique archive of Africa related geoscientific observation data which primarily need to be shared with African partners. The preparatory phase of this initiative should comply with the objectives of GEOSS and the EU development policy for the use of the Georesource data which are primarily to be shared with the African countries. The project should include participants from the African countries with experience in management of georesources, and exploring potential future application for the other ACP countries. **(Specific**

International co-operation action)

Funding scheme: coordination and support actions (supporting type)

Expected impact: *safeguarding/protecting observation data for Georesources in Africa as well as helping exploiting the relevant observing systems*



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Community research

ENV.2007.4.1.4.2. Improving observing systems for water resource management

Bring together research activities supporting the production of a number of new products for improving the water resource management in countries suffering from drought and floods (e.g. ACP countries) in the domain of precipitation, soil moisture, evaporation, evapotranspiration and other water cycle variables, by in-situ observations and the planned space mission contributing to the GEO initiative. Specific attention should be given through the project to clouds and precipitation that are at the heart of Earth's water cycle and to elaborating scenarios for observations at both the local and global scale which would enable better precipitation forecasts. The project should involve participants from the developing countries with experience in extreme precipitation events.

(Specific International co-operation action)

Funding scheme: collaborative projects (small or medium-scale focused research projects)

Expected impact: improved integrated monitoring systems for water resource management in developing countries, considered for deployment in the countries concerned and used at least at pilot scale.





ENV.2007.4.1.4.3. GEONETCast applications for developing countries

To test, with the collaboration of developing countries, the GEONETCast concept currently developed through GEO by which environmental satellite and in situ data and products from participating data providers within GEO would be transmitted to all users through a global network of communications satellites, using a multicast access controlled broadband capability. The project should address a limited number of pilot cases through which environmental data transmission and exchange covering some or all of the 9 societal benefit areas of GEO could be operated by using the GEONETCast protocol and involving European projects participants and International Co-operation Partner Countries (ICPC). **(Specific International co-operation action)**

Funding scheme: coordination and support actions (supporting type)

Expected impact: *relevant organisations in the developing countries start using broadcast environment data received through GEONETCast pilot cases and benefit from development of the people capacity in those countries to use GEONETCast in local/national planning and decision making.*





EUROPEAN
COMMISSION

Community research

ENV.2007.4.1.5.1. Support to the 2007 activities of the GEO Secretariat

To ensure the implementation of the GEOSS according to its annual work plan and the continuity of the participation of Europe in GEO, the Commission will pay a yearly contribution to GEO Secretariat (Hosted by World Meteorological Organisation).

Funding scheme: Grant to a named beneficiary (0.6 M €)





ENV.2007.4.2.1.1. Methodologies for scaling down to the regional and local level the analysis of policy impacts on multifunctional land uses and the economic activity

Innovative methodologies utilising modelling techniques (i.e. microsimulation, multi-agent, simplified cellular automata) are requested to scale down the analysis of policy impacts on multifunctional land uses as well as on the economic activity, from the EU or national level to the regional (and eventually local) scale, with special emphasis on new Member States as well as on Accession and Candidate Countries. The project will consider eco-system and biodiversity functionalities in the analysis at disaggregated level. Methods will also include participatory approach and will take into account stakeholder perspectives. The improved methodologies will seek to enhance the scope of strategic environmental assessment (SEA), sustainability impact assessment (SIA) and environmental impact assessments (EIA).

Funding schemes: collaborative projects (small or medium-scale focused research projects)

Expected impact: *enhanced analysis of possible policy impacts (in particular related to rural development and to Cohesion Policy and Pre-Accession Aid) on sustainable development by the different Commission services.*



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Community research

ENV.2007.4.2.1.2. Improved tools to analyse the sustainable development implications of the EU financial perspective revision (2008-2009)

Existing models (macro economic, econometric, general and partial equilibrium) will be improved to allow the simulation of budget scenarios (level, burden sharing and allocation) and measure their impacts on the environment, social and economic dimensions as well as identify the possible externalities. Strong attention should be paid to the consideration within the models of the main European policies: agriculture, fisheries, research and innovation, Cohesion Policy and Pre-Accession Aid. **(Policy relevant)**

Funding scheme: collaborative projects (small or medium-scale focused research projects)

Expected impact: *facilitated revision of the financial perspectives by the different Commission services.*





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Community research

ENV.2007.4.2.1.3. Tools for impact assessment of sustainable development policies in international collaboration partner countries

*The purpose is to further develop tools for analysing key elements of sustainable development policies at the macro- and meso-economic levels, with particular attention to the effects of co-operation and trade policies as well as to the impacts of the delocalisation of EU activities. The participation of ICPC partners should be predominant in the project. **(Specific International co-operation action)***

Funding scheme: collaborative projects (small or medium-scale focused research projects)

***Expected impact:** improved EU international development and research agendas through a better understanding of consequences of sustainable development policies in ICPC countries.*



ENV.2007.4.2.2.1. Bridging mainstream indicators of economic performance with sustainable development objectives

The aim of this project is to propose strategies to further align mainstream economic performance indicators with the objectives of the renewed sustainable development strategy. The project will review and update the existing critical analysis of Gross Domestic Product as an indicator of economic development. It will review in particular its shortcomings for measuring progress towards the objectives of the sustainable development strategy, such as intra- and inter-generational equity, protection of public health, environmental degradation, and depletion of natural resources. The study will also investigate to what extent these analyses and their conclusions have been taken up by institutions (e.g. UN, World Bank, OECD, EU and national), and the reasons behind it. Proposals for alternative indicators will also be scrutinized. The research will assess to what extent these indicators perform with regards to the goals of the Lisbon strategy (employment and competitiveness) while taking into account the issues related to the objectives of the sustainable development strategy. The research will formulate recommendations for composite mainstream indicators compatible with sustainable development to extend core systems of national income accounting. It will provide concrete examples of estimations across countries, as well as a roadmap for their implementation. Sensitivity analysis will be included in the methodology, as well as validation processes, in particular through participatory methods.

Funding scheme: collaborative projects (small or medium-scale focused research projects)

Expected impact: improved follow up of progress towards the objectives of the renewed EU sustainable development strategy



ENV.2007.4.2.3.1. Policies to promote sustainable consumption patterns

The impact of policy instruments on consumption patterns, with special regard to their sustainability, will be systematically analysed. These instruments include public procurement, market based instruments, fiscal policies and other regulation instruments at EU and Member State level.

The conditions of failure and success of sustainable consumption strategies will also be carefully analysed. The research will build on previous work and mobilise all relevant disciplines including social sciences. Collective behaviour, consumers' attitudes, business strategies and institutional settings will be scrutinised. The international dimension of the sustainability of consumption patterns will be explored.

Based on these two types of results (impact of policies on consumption patterns and outcome of sustainable consumption strategies), options to enhance sustainable consumption patterns will be proposed. They will include a detailed presentation of policies and operational instruments, among which foreseen monitoring practices. Their expected impact will be assessed through quantitative and qualitative methods.

Funding scheme: collaborative projects (small or medium-scale focused research projects)

Expected impact: *improved sustainability of consumption patterns in Europe and enhanced contributions to the renewed EU sustainable development strategy and the Lisbon agenda. Enhanced EU contribution to the Marrakech process.*



ENV.2007.4.2.3.2. Engaging civil society in research on sustainable development

Civil society organisations[1] are invited to provide new insights, complementary to those of the scientific community and industry, to identify gaps in knowledge and in the research agenda for sustainable development. On this basis, CSOs will outsource research activities to RTD performers in fields such as the decoupling between economic growth and environmental damage and/or the interplay between social, economic and ecological systems. The focus will be on indicators, assessment tools and policy strategies, and how their efficiency can be increased taking into account visions and interests of different stakeholders as well as handling of the multiple dilemmas to which policy-makers are confronted. Exploratory actions of small scale to prepare future partnerships can also be envisaged.

Funding schemes: Research for the benefit of specific groups or coordination and support actions (coordinating type or supporting type)

Expected impact: *increased involvement of civil society organisations in research, and consequently, increased contribution of research to sustainable development. These projects will allow also the creation of partnerships between civil society organisations and research organisations.*

[1] The definition of civil society organisation is included in the presentation of the funding schemes (page 7-8).



ENV.2007.5.1.1.1. Transnational co-operation among NCPs 1/2

Reinforcing the network of National Contact Points (NCP) for the Seventh Framework Programme under the Theme "Environment (including Climate Change), by promoting trans-national co-operation. The action will focus on identifying and sharing good practices. This may entail various mechanisms such as benchmarking, joint workshops, training, and twinning schemes. Practical initiatives to benefit cross-border audiences may also be included, such as trans-national brokerage events. The specific approach should be adapted to the nature of the theme and to the capacities and priorities of the NCPs concerned.

Special attention will be given to helping less experienced NCPs rapidly acquire the know-how accumulated in other countries. Proposals are expected to include all NCPs who have been officially appointed by the relevant national authorities. Other participants from the EU and associated countries are ineligible. If certain NCPs wish to abstain from participating, this fact should be explicitly documented in the proposal. The action should also involve official FP7 contacts from the international cooperation partner countries. It is expected that the project should in any case finish before March 2013.

Funding scheme: coordination and support actions (coordinating type)





EUROPEAN
COMMISSION

Community research

ENV.2007.5.1.1.1. Transnational co-operation among NCPs 2/2

Expected impact: *an improved NCP service across Europe, therefore helping simplify access to FP7 calls, lowering the entry barriers for newcomers, and raising the average quality of submitted proposals. A more consistent level of NCP support services across Europe. More effective participation of organisation from third countries, alongside European organisations, in line with the principle of mutual benefit.*

