

SECOND Call Global Change and Ecosystems – Complete overview

(in **bold** forest related opportunities for 2004)

Specific Programme: Integrating and Strengthening the ERA

Priority Area 6: Sustainable Development, Global Change and Ecosystems

Sub-priority 3: Global Change and Ecosystems

Call Identifier: FP6-2003-Global-2 (http://fp6.cordis.lu/fp6/call_details.cfm?CALL_ID=78)

Call period: 3 July 2003 – 9 October 2003 (for IP, NoE, STREP, CA)
3 July 2003 – 9 October 2003 and 17 February 2004 (for SSA)

Budget second Call 2004:

Instrument	E (millions)
IP and NoE	150
STREP, CA and SSA	30
Total	180

Areas of the second Call for Proposals (3 July 2003) related to Global Change and Ecosystems

Note: in general up to 1 project utilising a new instrument (NoE, IP) will be funded for each topic. The number of STREPs and CAs for the relevant topics and of SSAs is not limited.

Area	Objective	Topic category	Topic 2004 (SECOND call)	Instruments (to be implemented in 2004)
I. Impact and mechanisms of greenhouse gas emissions and atmospheric pollutants on climate, ozone depletion and carbon sinks	To detect and describe global change processes, associated with greenhouse gas emissions and atmospheric pollutants from all sources, to improve prediction and assessment of their global and regional impacts, evaluate mitigation options and improve the access of European researchers to facilities and platforms for global change research	I.1. Carbon and Nitrogen cycles: sources and sinks	1b. Assessment of marine carbon courses and sinks	1 IP or NoE (IP preferred)
		I.2. Atmospheric pollutants and their regional impacts	2b. Atmospheric pollutants and climate forcing	1 IP or NoE
		I.3. Climate dynamics and variability	3a. Hot spots in the earth system	1 IP or NoE
			3b. Coupled climate system	STREP and CA
			3c. Novel palaeoreconstruction methods	STREP and CA
		I.4. Prediction of climatic change and its impacts	Not open	
		I.5. Stratospheric ozone and climate interactions	5b. Aviation and surface transport impacts	1 IP or NoE (IP preferred)
I.6. Adaptation and mitigation strategies	Not open			

Area	Objective	Topic category	Topic area	Topic 2004 (SECOND call)	Instruments (to be implemented in 2004)
II. Water cycle, including soil-related aspects	To understand the mechanisms and assess the impact of global change, and in particular climate change, on the water cycle, water quality and availability, as well as soil functions and quality to provide the bases for management and technological tools for water systems, to mitigate the impacts.	II.1. Hydrology and climate processes	-	Not open	
		II.2. Ecological impact of global change, soil functioning and water quality	2.1. Impacts of global change on the ecology of surface water bodies	Not open	
			2.2. Water-soil system functioning and management	2.2b. Soil-groundwater protection	STREP and CA
		II.3. Integrate management strategies and mitigation technologies	3.1. Integrated water management at catchment scale	3.1b. Methodologies of Integrated Water Resource Management and Transboundary issues (through international partnership with candidate and developing countries and International Organisations)	1 NoE or IP
			3.2. Integrated urban water management and mitigation technologies	3.2a. Wastewater treatment for re-use	STREP and CA
			3.3. Management of scarce water resources and mitigation technologies	3.3b. New approaches to water stress	1 NoE or IP (IP preferred)
		II.4. Scenarios of water demand and availability	-	4.1a. Water scenarios for Europe and for neighbouring countries	1 NoE or IP (IP preferred)

Area	Objective	Topic category	Topic 2004 (SECOND call)	Instruments (to be implemented in 2004)
III. Biodiversity and ecosystems	To develop a better understanding of marine and terrestrial biodiversity and of ecosystem functioning, to understand and minimise the negative impacts of human activities on them, and to ensure sustainable management of natural resources and terrestrial and marine ecosystems as well as the protection of genetic resources.	III.1. Assessing and forecasting changes in biodiversity, structure, function and dynamics of ecosystems and their services, with emphasis on marine ecosystem functioning	1.5. Integrated research on ecosystems lying in the deeper ocean section	1 NoE or IP
		III.2. Relationships between society, economy, biodiversity and habitats	Not open	
		III.3. Integrated assessment of drivers affecting ecosystems functioning and biodiversity, and mitigation options	3.1. Develop models and simulations to assess and forecast changes in terrestrial and fresh water biodiversity and ecosystems (focus on European ecosystems)	1 NoE or IP
			3.2. Develop models at the level of the open ocean for assessing and forecasting the impacts of climate and anthropogenic forcing on pelagic ecosystem	1 NoE or IP
			4.2. Develop models for assessing and forecasting the impact of environmental pollution on fresh water and marine ecosystems and their biodiversity	1 NoE or IP
		III.4. Risk assessment, management, conservation and rehabilitation options in relation to terrestrial and marine ecosystems	4.3. Create an inventory of invasive species that threaten European terrestrial, freshwater and marine environments	STREP and CA
			4.4. Harmful algal blooms in European marine and brackish waters	STREP and CA

Area	Objective	Topic category	Topic 2004 (SECOND call)	Instruments (to be implemented in 2004)
IV. Mechanisms of desertification and natural disasters	To understand the mechanisms of desertification and natural disasters, including their links with climatic change so as to improve risk and impact assessment and forecasting, and decision support methodologies.	IV.1. Mechanisms of desertification	1b. Assessment of the vulnerability to desertification	1 NoE or IP (IP preferred)
			1c. Combating desertification (international cooperation with relevant regions (Africa, Asia, Latin America) is encouraged)	1 NoE or IP
		IV.2. Natural disasters	2c. Natural disasters (e.g. forest fire, floods, landslides) (potential for international cooperation)	STREP and CA

Area	Objective	Topic category	Topic area	Topic 2004 (SECOND call)	Instruments (to be implemented in 2004)
V. Strategies for sustainable land management, including coastal zones, agricultural land and forests	To contribute to the development of strategies and tools for the sustainable use of land, with emphasis on the coastal zones, agricultural land and forests, including integrated concepts for the multipurpose utilisation of agricultural and forest resources, and the integrated forestry/wood chain in order to ensure sustainable development at economic, social and at environmental levels.	V.1. Sustainable use of land	V.1.1. Land-use and landscapes in sensitive regions	1a. Enhanced impact assessment and management tools for sustainable land-use with a multifunctional approach	1 NoE or IP
			V.1.2. Integrated Coastal Zone Management considering spatial and temporal integration and stakeholders involvement for Sustainable Development	Not open	
		V.2. Qualitative and quantitative aspects of multi-functionality of agriculture and forestry/wood chain	V.2.1. Agriculture for sustainable development	1a. Farming system management and multifunctional use of agriculture and agroforestry to implement the Sustainable Development Strategy (participation of associated candidate countries is encouraged)	1 NoE or IP (IP preferred)
			V.2.2. Forestry/wood chain for sustainable development	Not open	

Area	Objective	Topic category	Topic 2004 (SECOND call)	Instruments (to be implemented in 2004)
VI. Operational forecasting and modelling including global climatic change observation systems	To make systematic observation of atmospheric, terrestrial and oceanic parameters, including those of climate, so as to improve forecasting of the marine, terrestrial and atmospheric environment, consolidate long-term observations for the modelling and in particular prediction, establish common European data bases and contribute to international programmes.	VI.1. Development of observing and forecasting systems	1a. Earth system observations	NoE
			1b. Co-operative projects on climate observation with non-EU countries	STREP

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VII. Complementary research	To focus on the development of advanced methodologies for risk assessment of processes, technologies, measures and policies, the appraisal of environmental quality, including reliable indicators of population health and environmental conditions and risk evaluation in relation to outdoor and indoor exposure.	VII.1. Development of advances methodologies for risk assessment	1.1. Integrated Risk Assessment	1.1a. Development of risk assessment methodologies	1 NoE or IP (IP preferred)
				1.1b. Methods for risk assessment of pharmaceuticals in the environment	STREP and CA
		VII.2. Appraisal of environmental quality, population health and monitoring tools	2.1. Methods for appraising environmental quality and health	2.1a. Assessment of global change-driven environmental factors linked to the risk of introducing or spreading emerging diseases in Europe	1 NoE or IP
				2.2. Environmental monitoring tools (standards, measurement and testing)	Not open

Area	Objective	Topic category	Topic 2004 (SECOND call)	Instruments (to be implemented in 2004)
VIII. Cross-cutting issues: sustainable development concepts and tools	To develop concepts and tools for facing the complex challenges expressed in the EU Strategy on Sustainable Development and the Johannesburg Summit and to characterise the sustainability dimension of the relevant policies.	VIII.1. Estimating thresholds of sustainability and externalities	1b. Thresholds of sustainability	1 NoE or IP (IP preferred)
			1c. Externalities (new accounting frameworks of externalities for sustainability assessment at both micro and macro level)	1 NoE or IP (IP preferred)
		VIII.2. Developing tools for integrated sustainability assessment and for the incorporation of sustainability in decision making processes	2c. Innovative methods and tools for Integrated Sustainability Assessment (participation of associated candidate countries is encouraged)	1 NoE or IP
			2e. Educational programmes on social and environmental tools for the implementation of the EU Strategy on Sustainable Development both at EU and international levels	STREP and CA

Area (instrument)	Objective	Topic 2004 (SECOND call)
Specific Support Actions (SSA)	To contribute to the implementation of the work programme, the analysis and dissemination of results or the preparation of future activities, with a view to enabling the Community to achieve or define its RTD strategic objectives.	European Network for Research in Global Change (ENRICH) to build and strengthen co-operation with partners in developing world on issues such as climate change, biodiversity, ecosystems, natural risks and hazards.
		Actions for associated candidate countries
		European contribution to climate related polar research
		Consolidate and impact assessment of results achieved in EU research projects relating to regional and urban sustainability aspects
		Call for tender in 2004: Providing scientific, technical and logistical support for the activities of the European Platform for Biodiversity Research Strategy (EPBRS)

Minimum number of participants

Instrument	Minimum number of participants
IP, NoE, STREP, CA	3 independent legal entities from 3 different member states (MS) or Associated States (AS), with at least 2 MS or Associated Candidate Countries (ACC)
SSA	1 legal entity, 1 from a MS or AS

Consortia agreements:

- Participants in IP and NoE are required to conclude a consortium agreement
- Participants in STREP, CA and SSA are encouraged but not required to conclude a consortium agreement

Links to other research topics

- Priority Global Change and Ecosystems (1.1.6.3) will contribute to Global Monitoring for Environment and Security (GMES), although main research contribution will come from Priority Aeronautics and Space (1.1.4)
- Natural disasters, Coastal management, Water management systems will be co-ordinated with Priority Information Society Technologies (1.1.2)
- Sustainable Development and foresight of the cross-cutting issue will be subject to co-ordination with Priority Citizens and Governance in a Knowledge-based Society (1.1.7), and co-ordinated with Sub-priority Sustainable Energy (1.1.6.1) and Sustainable Transport (1.1.6.2).
- Forestry/wood chain will be co-ordinated with Priority Nano-technology and Nano-sciences, Knowledge-based Multifunctional materials, New Production Processes and Devices (1.1.3)
- Integrated Risk Assessment will be co-ordinated with Priority Food Quality and Safety (1.1.5) – Environmental Health Risks, and with the Integrated Scientific Area Health and Environment (1.4.2)
- Agricultural research for SD as well as Complementary Research will be co-ordinated with Priority Food Quality and Safety (1.1.5)
- General co-ordination for all areas with Specific activities covering a wider field of research (Cross-cutting issues), including activities related to the EU Water Initiative which will be co-ordinated with the specific measures in support of INCO.

Estimated time table:

- IP and NoE evaluation: 2-stage. An outline proposal of about 20 pages shall be submitted before 9 October 2003. Indicative closure date second submission: 17 February 2004
- Other instruments: single-stage submission.
- Evaluation results: within 2-3 months after closure date
- First contract signature: before end 2004