

BMW\_F<sup>a</sup>

 **PROVISO**

 **FFG**

Vienna, September 2009

# **Success Stories**

**Austrian participation in FP6  
in the field of Environment**

## **Preface Johannes Hahn Federal Minister for Science and Research**

It is my pleasure, to acknowledge successful Austrian scientists who have acted as coordinators and participants in European environmental research projects. Entering fruitful partnerships with European and international scientific "frontrunners", in order to achieve high excellence in research and reach out for our national objective to position Austria in the European and global research landscape, is a promising way.

Science, research and development are main contributors to a society's wealth and a country's future capabilities. During the last years, Austria has been increasing its budget for research, innovation and development significantly. We also support enhanced interaction between research and industry to foster innovations, problem-solving technologies and concepts.

The European Framework Programme with its multinational and interdisciplinary projects and high scientific excellence requires international and intercultural cooperation and networking. Participation includes mastering the challenges of working with great heterogeneity of the research, private and institutional communities. Researchers report in their success stories that a number of young scientists could enhance their educational careers during the projects, which emphasises the researchers function as role model for the future generation of scientists. Thematically, a variety of grand challenges of our time such as climate change impacts, sustainable development, biodiversity, water issues and land management, energy questions, technological and socio-economic solutions, are addressed in the presented projects.

I congratulate and thank all Austrian participants for their efforts, which finally led to success, as well as for their scientific and personal achievements in the scientific community and wish you all the best for your future.



A handwritten signature in blue ink, appearing to read 'Hahn', written in a cursive style.

Dr. Johannes Hahn  
Federal Minister for Science and  
Research

## **Preface Henrietta Egerth Austrian Research Promotion Agency**

The Austrian Research Promotion Agency (FFG) is – since its founding in year 2004 – established as a competent partner in the national and international research funding landscape. FFG provides to Austrian research organisations (industry, SMEs, universities), on the one hand financial support for research and on the other hand individual services, like consulting, partner search and technology transfer, both at national and international level.

With the Division of European and International Programmes (EIP), FFG acts as Austria's "National Contact Point" for the EU Framework Programme for research, technological development and demonstration activities. FFG's mission is in this respect to support researchers with tailor-made support along the whole project circle. Our activities range from awareness measures, to detailed project development coaching, and proposal checks, as well as networking activities at European and international level. Our main aim is to facilitate and strengthen the success of Austrian companies and universities in European research programmes. Our way to offer the full range of NCP services on a

qualitative high level was and is so far very effective.

This brochure is dedicated to the wider field of environmental research within the 6<sup>th</sup> Framework Programme and shows impressively that the respective Austrian research sector has proven its excellence and innovative character in the four-year period of FP6. Austrian research organisations participated in 107 projects in the area of environmental research. Although Austrian participation can be found in a plentitude of topics and research areas, a clear strength in the field of water management and sanitation can be identified.

Many research areas where Austria was so successful in FP6 remain also highly important in the current 7<sup>th</sup> Framework Programme. In this sense the presented Austrian research organisations can be seen as forerunners for actual and future European projects in the field of environment.

In the very competitive 7<sup>th</sup> Framework Programme, the right choice of experienced partners is even more crucial. Consult this brochure as a first step in finding a competent partner. As National Contact Point organisation we would be glad to further support all your efforts in finding an appropriate Austrian research partner.



Dr. Henrietta Egerth  
Managing Director of FFG

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## Introduction

During the last decades environmental issues have become more and more important to unravel, aiming to achieve a sustainable and environmentally friendly Europe. Tackling environmental problems, of course, requires extensive collaboration and a coordinated approach at the pan-European and international level.

The authors' motivation in producing the present brochure was to provide the European research community with a description of the expertise and know-how accumulated in Austria, through participation in the 6<sup>th</sup> EU Framework Programme for Research and Technological Development (FP6).

Within this brochure we present a collection of projects in which Austrian organisations have been successfully funded within the FP6 in the wider field of "Environment". In total, short descriptions of 107 projects with Austrian participation in the environment relevant FP6 priorities and areas of:

- "Global Change and Ecosystems" (SUSTDEV),
- "Scientific Support to policies" (SSP),
- "Specific measures in support of international co-operation" (INCO),
- "Horizontal research activities involving SMEs"
- ERA-NET priorities and areas, as well as are presented in the following pages.

The project descriptions are listed according to the thematic area in which the proposals were submitted. Contact details like the project-website, or the name of the Austrian participant can be used to obtain in depth information regarding project results and know-how.

The project descriptions are preceded by a special part of the brochure in which several Austrian success stories are presented. With these few selected short summaries of projects coordinated by Austrian organisations, the coordinators give insight on how they perceive their success, and describe the most central results of their FP6 adventure.

Coordinating a European project stands not only for innovative, applied research but also for a big effort orchestrating the coordination and collaboration with the partners. In many cases the networks built during such a project continue and are a fruitful inspiration origin for further collaboration and follow-up projects which in turn close the gap to develop sustainable ideas for an environmental friendly Europe.

A wide range of innovative research topics are portrayed, in which Austrian project coordinators and partners present the diversity of Austria's research and innovation landscape. However, project participation is by no means equally

distributed among the different thematic areas in the relevant programme priorities. The figure on the next page illustrates the distribution of Austrian participation in FP6.

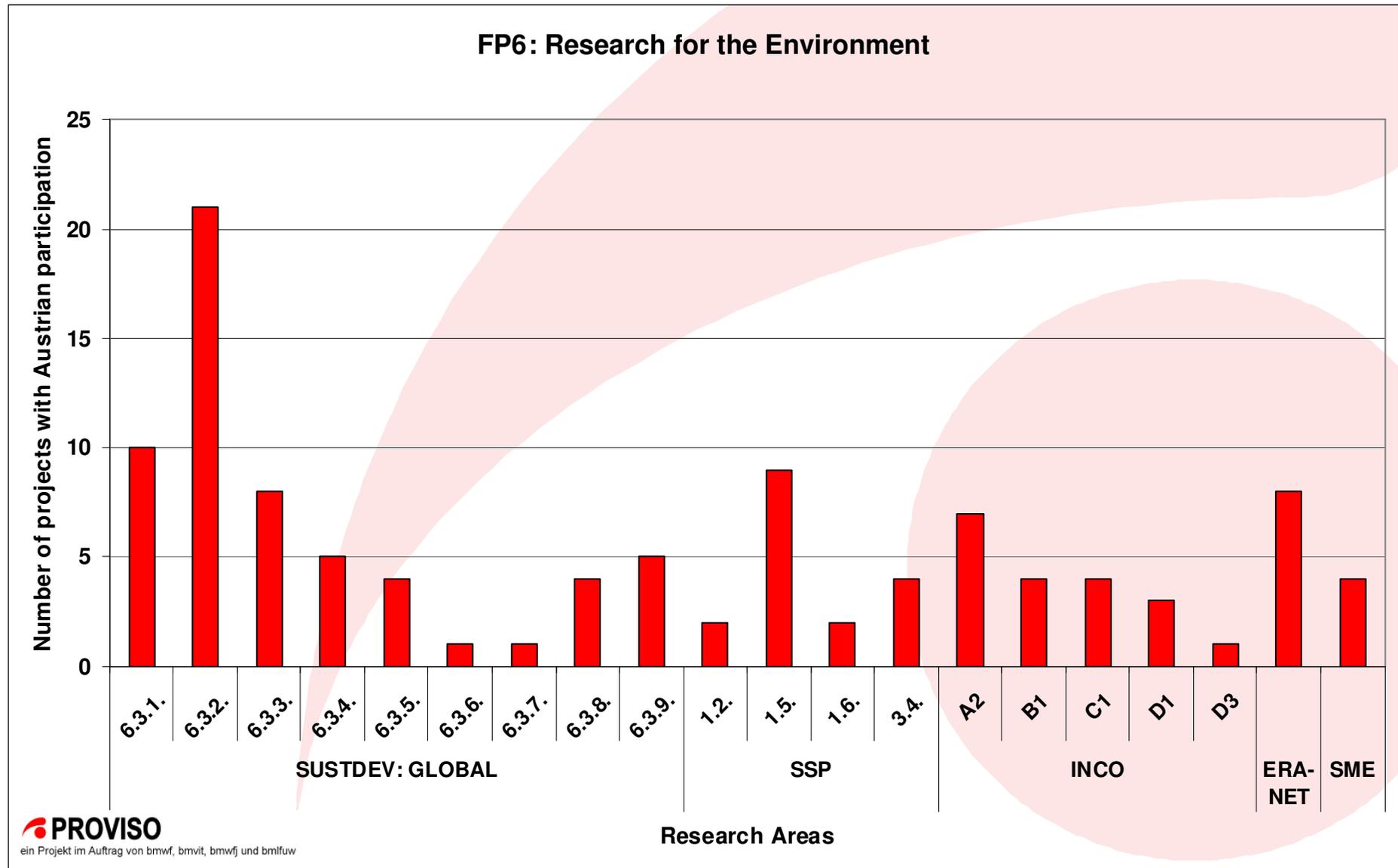
A clear strength, when it comes to Austrian know-how is reflected in the numerous projects in the field of "Sustainable water cycle management", this water-cycle focus can also be traced in most of the INCO projects.

The second most 'popular' thematic area is that of "impact and mechanisms of greenhouse gas emissions" complemented by an Austrian lead ERA-NET in the field of climate change.

All data found in this brochure were provided by the European Commission and further processed by PROVISO and the Austrian Research Promotion Agency. Furthermore the data in the project descriptions were validated and supplemented by the Austrian project participants.

We hope you enjoy paging through the brochure, finding inspiration, ideas and why not, new partners for starting your next European research project. The National Contact Points in FFG and the Programme Delegate in BMWF will be happy to support you.

## Distribution of Austrian project participation



## RESEARCH AREAS

Theme	Topic	Number of projects with Austrian participation
SUSTDEV: GLOBAL	6.3.1. Impact and mechanisms of greenhouse gas emissions and atmospheric pollutants on climate, ozone depletion and carbon sinks	10
	6.3.2. Water cycle including soil-related aspects	21
	6.3.3. Biodiversity and ecosystems	8
	6.3.4. Mechanisms of desertification and natural disasters	5
	6.3.5. Strategies for sustainable land management, including coastal zones, agricultural land and forests	4
	6.3.6. Operational forecasting and modeling including global climatic change observation systems	1
	6.3.7. Complementary Research	1
	6.3.8. Cross-cutting issue: Sustainable Development concepts and tools	4
	6.3.9. Specific support actions (covering several areas)	5
SSP	<i>8.1.B.1. Sustainable management of Europe's natural resources</i>	
	1.2 Tools and assessment methods for sustainable agriculture and forestry management	2
	1.5 Environmental assessment (soil, water, air, noise, including the effects of chemical substances)	9
	1.6 Assessment of environmental technologies for support of policy decisions, in particular concerning effective but low-cost technologies in the context of fulfilling environmental legislation	2
	<i>8.1.B.3. Underpinning the economic potential and cohesion of a larger and more integrated European Union</i>	
3.4 Forecasting and developing innovative policies for sustainability in the medium and long term	4	
INCO	<i>A. Developing Countries (DEV)</i>	
	A2. Natural resources	1
	A2.1. Managing humid and semi-humid ecosystems	2
	A2.3. Managing arid and semi-arid ecosystems	4
	<i>B. Mediterranean Partner Countries (MPC)</i>	
	B1. Environment	1
	B1.1 Comprehensive policy for integrated water planning	1
	B1.3 Advanced water treatment, re-use and energy implications	2
	<i>C. Western Balkan Countries (WBC)</i>	
	C1. Environment	1
	C1.1 Integrated management of regional water resources planning and policy	1
	C1.2 Industrial and municipal wastes	1
	C1.3 Renewable energy and hybrid systems	1
	<i>D. Russia and the other New Independent States (Russia+NIS)</i>	
	D1. Environmental protection	3
D3. Health protection	1	
ERA-NET	Environment and Energy	7
	Environment and Energy / International Cooperation	1
SME	8 (Environment / Waste management)	4

## Success stories

### ***ROSA (Resource-Orientated Sanitation concepts for peri-urban areas in Africa)***

University of Natural Resources and Applied Life Sciences Vienna (BOKU)

### ***GLOCHAMORE (Global Change in Mountain Regions)***

University of Vienna

### ***Green Concrete (Development of gravel turf consisting of recycled construction materials as an economical and ecological method for permeable and absorptive surface consolidation most suitable for parking areas)***

University of Natural Resources and Applied Life Sciences Vienna (BOKU)

### ***GEO-BENE (Global Earth Organisation-Benefit Estimation: Now, Next and Emerging)***

International Institute for Applied Systems Analysis (IIASA)

### ***EFl+ (Improvement and spatial extension of the European Fish Index)***

University of Natural Resources and Applied Life Sciences Vienna (BOKU)

### ***CIRCLE (Climate Impact Research Co-ordination for a Larger Europe)***

Umweltbundesamt GmbH (UBA)

### ***Assess-HKH (Development of an assessment System to Evaluate the Ecological Status of Rivers in the Hindu Kush-Himalayan Region)***

University of Natural Resources and Applied Life Sciences Vienna (BOKU)

### ROSA (Resource-Orientated Sanitation concepts for peri-urban areas in Africa)

"Sanitation" refers to the principles and practices relating to the collection, removal or disposal of liquid and solid waste. **The main objective of a sanitation system is to protect and promote human health by providing a clean environment and breaking the cycle of disease.** In order to be sustainable a sanitation system has to be not only economically viable, socially acceptable and technically and institutionally appropriate, but it should also protect the environment and the natural resources. Resource-oriented sanitation systems recognize human excreta and water from households as a resource (and not as a waste), which should be made available for re-use. The project ROSA which was coordinated by the University of Natural Resources and Applied Life Sciences Vienna, promotes resource-oriented sanitation concepts as a route to sustainable and ecologically sound sanitation in order to meet the UN Millennium Development Goals (MDGs) which call for halving the proportion of people without access to safe drinking water and basic sanitation by 2015.



**Instrument:** STREP **Duration:** 3 Years

**Budget:** 2.9 Mio €

**EU-Contribution:** 2.9 Mio €

**Coordinator:** University of Natural Resources and Applied Life Sciences Vienna (BOKU); Institute of Sanitary Engineering and Water Pollution Control; Austria (Dr.Günther Langergraber)

**Internet:** <http://rosa.boku.ac.at>

These concepts were applied in four cities in East-Africa, namely Arbaminch (Ethiopia), Nakuru (Kenya), Arusha (Tanzania) and Kitgum (Uganda). For the model cities, strategic sanitation & waste plans (SSWPs) were developed according to the local requirements.

*"Starting a local collaboration for such a project can be very demanding at the beginning. To tackle with that the project was set-up by the European partners, whereas most of them have known the local partners already. This made it easier to get things on the right track."* (Dr. Langergraber, ROSA Coordinator)

Within the project a part of the SSWPs were developed in peri-urban areas, where there is a lot of research need for resource-oriented sanitation. Research topics addressed within ROSA were targeting the gaps for the implementation of these concepts in peri-urban areas.



In two of the pilot-cities, Nakuru and Arba Minch, our efforts were **crowned with success.** In these cities projects for large-scale implementation of the Strategic Sanitation and Waste Plans have already been initiated.

Throughout the whole project it was crucial to **include the municipalities as project partners which are actually the key for the sustainable development of the implementation of sanitation** to create a local ownership. On the other hand the main difficulties in implementing this project were given due to the slow procedures of the local municipalities. Other unforeseen challenges like the riots due to the election in Kenya caused serious problems and delays in the Kenyan pilot city.

**A very important issue was to educate and train the local staff in different training courses** which was conducted either by the European partners or local trainers. In addition there were several international courses on sanitation which were attended by personnel from partner organisations as well as the chance for local students to participate within the project as part of the local-team. Overall it was the first project in which local universities were working on practical problems in sanitation in their cities.



*"Although it is quite hard to get a FP project it is worth to try. One can learn a lot from the way how problems are solved in different countries and overall working with international partners and being exposed to different cultures is very inspiring."* (Dr. Langergraber, ROSA Coordinator)

## GLOCHAMORE (Global Change in Mountain Regions)

Mountains are an important part of the global system. Because of their vertical extent, mountain climates differ from those in nearby lower elevations, as do the essential natural resources, such as water, associated with them. Their verticality also generates tremendous habitat and species diversity over short horizontal distances.

The GLOCHAMORE project responded to the increasing need to understand the causes and impacts of Global Changes in mountain regions. It has been developed to guide managers of Mountain Biosphere Reserves (MBRs) and scientists in planning and implementing global change research. Specifically, the **GLOCHAMORE project aimed to 1)** develop an integrative research strategy for detecting signals of global environmental changes in mountain environments, **2)** defining the impacts of these changes on mountain regions as well as lowland areas dependent on mountain resources and **3)** facilitating the development of sustainable resource management regimes for mountain regions.



**Instrument:** SSA **Duration:** 2 Years

**Budget:** 448.265 €

**EU-Contribution:** 350.000 €

**Coordinator:** University of Vienna; Institute for Ecology and Nature Conservancy; Austria (Univ. Prof. Mag. Dr. Georg Grabherr)

**Internet:** [www.gloria.ac.at/res/gloria\\_home/](http://www.gloria.ac.at/res/gloria_home/)

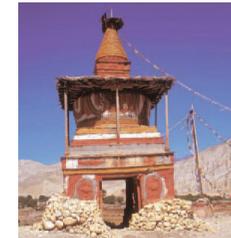
Within the project several specific environmental issues were addressed. Our main topics to be evaluated were the global change impacts in mountains areas on climate, land use, the cryosphere (snow, glaciers, permafrost), water systems, ecosystem functioning and services, biodiversity, hazards, health determinants and outcomes afflicting humans and livestock, mountain economies society and global change.

*“With some exceptions GLOCHAMORE was not designed as a project for data collection, but for **developing strategies for both data (mostly long-term observations) and for sustainable development.**”* (Univ. Prof. Mag. Dr. Georg Grabherr GLOCHAMORE Coordinator)



Although **difficulties** arose in the beginning phase when a key person of a core partner group (Mountain Research Initiative MRI) quit the position and an intermittently too limited budget, which could be bridged through personnel efforts of the GLORIA coordination team, the initially difficult situation turned out to be a successful cooperation among the teams. At all the former FP5 project GLORIA-Europe (on warming-induced ecological and biodiversity impacts in alpine regions) was not only a predecessor of GLOCHAMORE, but the institution and team of the GLORIA coordination also was coordinating the latter.

**Educational and training** aspects played and play an important role, on the one hand among thematic experts in the respective countries (e.g. training of field research teams), on the other hand through the interplay among researchers, biosphere managers and local communities.



Finally the GLOCHAMORE Open Science Conference, held at Perth/Scotland in autumn 2005, was perfectly organised and attended by several hundred participants. It not only resulted in a book publication, the **“Perth Declaration”** but also through a busy ongoing follow-up process and conference planned for autumn 2010 again at Perth.

Importantly the main achievement of the project the “Perth-Declaration” and the Mountain Research Strategy did not remain a piece of paper, but was developed further beyond the end of the project through UNESCO-MAB/MRI where the implementation process continues with the currently promoted project “Global Change in Mountain Sites” (GLOCHAMOST). Furthermore research baselines already were implemented in parts, e.g. GLORIA observation sites in most of the selected biosphere reserves.

**Green Concrete (Development of gravel turf consisting of recycled construction materials as an economical and ecological method for permeable and absorptive surface consolidation most suitable for parking areas)**

The project focused on the suitability of recycling materials for the construction of gravel turf. Gravel turf is an ecological and economical technology for surface consolidation, particularly suitable for parking areas. Recycling materials from the demolition of buildings is an easy available resource. Until now, the suitability as well as applicability of these materials is very restricted. Gravel turf is a biosphere, which allows natural water circulation, infiltration and evaporation; it improves the microclimate and thus the quality of life in urban areas. Furthermore by absorbing precipitation, gravel turf relieves the burden on the sewage system, prevents flood damages and fosters the renewal of groundwater in urban areas and opens a new market for companies within this field.



**Instrument:** SME **Duration:** 2 Years

**Budget:** 958122 €

**EU-Contribution:** 867.411 €

**Coordinator:** University of Natural Resources and Applied Life Sciences Vienna (BOKU); Department of Civil Engineering and Natural Hazards; Institute of Soil Bioengineering and Landscape Construction (IBLB); Austria (Professor Dr. Florin Florineth)

**Internet:** [www.greenconcrete.eu](http://www.greenconcrete.eu)

The **main achievement** of the project implied the elaboration of the scientific and technical basis for the broad application of gravel turf. During the project 2300m<sup>2</sup> of gravel turf at four different test sites, matching 184 parking places were constructed. More than 750 tons of natural gravel and quality certified recycled construction materials have been used and investigated comprehensively.

Due to the fact that a research project is always a dynamic process it was **essential to have a good management team and a well thought work plan to keep the focus on the core project aims**. Another **difficulty** was that project partners usually have different levels of experience, working speed and attitude towards accuracy. The project management is accountable to keep the partners together by continuous and intensive mediation work and bid for mutual sympathy and support.

*“Especially scientists tend to loose track in a thematically broad and interesting field. Regularly held telephone conferences including the scientists and management are very meaningful to monitor the project progress, make decisions and push the project forward.”*  
(Professor Dr. Florin Florineth)



The **consortium building process** was greatly assisted by the fact, that six of the SME partners already have known each other from research projects in collaboration with the RTDs. The other six SME partners has been known to the existing consortium members and accordingly acquired for the project.



Two master theses have been written at the University of Natural Resources and Applied Life Sciences, Vienna in course of the project. The students have been fully integrated in the project, as equal team members and the input and work contributed by both of them have been very valuable to the project. At the moment another master thesis is authored, continuing the investigations and delving on certain other aspects.

*“The IBLB benefits in three ways of projects like this. First, the network has been enlarged and strengthened. Second, the collaboration with SMEs guarantees the practical and economic applicability of applications. Third, the competence of IBLB staff in setting up and conducting international research projects is strengthened. For the mentioned benefits the IBLB is certainly willing to contribute in future SME research projects.”*  
(Professor Dr. Florin Florineth)

## **GEO-BENE (Global Earth Organisation- Benefit Estimation: Now, Next and Emerging)**

Global earth observations (GEO) are instrumental to achieve sustainable development goals and are major drivers of how the socio-technology environment system is managed. Until the start of GEO-BENE an integrated economic, social and environmental assessment of the nine benefit areas of GEO (Disasters, Health, Energy, Climate, Water, Weather, Ecosystems, Agriculture and Biodiversity) has not been carried out.

In this respect the **aim of GEOBENE** was to **develop methodologies and analytical tools to assess societal benefits of GEO using quantitative and qualitative information.** Benefit assessment tools that were developed around spatially explicit information applying deterministic and stochastic approaches and various model structures were applied to global data sets assessing benefit functions using harmonised socio-economic and technology scenarios. The resulting concise policy conclusions from modelling exercises aimed in supporting the implementation of international agreements.



**Instrument:** STREP, **Duration:** 3 Years

**Budget:** 3.384.500 €

**EU-Contribution:** 2.499.583 €

**Coordinator:** International Institute for Applied Systems Analysis (IIASA); Austria (Dr. Michael Obersteiner)

**Internet:** [www.geo-bene.eu](http://www.geo-bene.eu)

Throughout the project, detailed case studies regarding the potential benefit improvement within the nine Societal Benefit Areas of the GEO domain were addressed whereas the main focus was put on environmental issues, such as: wild land fires, earthquakes, biodiversity hotspots and ecosystems services.

*“About 10-15 models, operating on regional and on global scale,- of both bio-physical and economical nature, have been created or further developed during the GEO-BENE project.”* (Dr. Michael Obersteiner GEO-BENE Coordinator)



The résumé which can be drawn out of the project results, indicate that investment into enhanced and better coordinated future earth observation systems (e.g. data collection and sharing) can lead to tremendous cost reductions and beside that to significant social and environmental benefits.

The GEO-BENE consortium turned out to be well selected and pro-active throughout the entire life time of the project, resulting in getting even further than projected in the proposal.

*“Research partners were mainly members from earlier project coordination by IIASA’s Forestry Programme (e.g. INSEA, FP6) which was very productive and although it turned out to be a big challenge to deal with a great heterogeneity of the entire research and institutional community, it was a challenge to work successfully in a widely non-binding-agreement environment.”* (Dr. Michael Obersteiner GEO-BENE Coordinator)

During the project there were plenty of bi-lateral exchanges of researchers within the consortium (e.g. people going from IIASA to NIES in Japan for several months, and other researchers from different institutes relevant to the project coming to work with the IIASA team). Furthermore several PhD students who meanwhile finished their studies were working on the project and finally were employed as regular IIASA scholars.



The **main achievement** was the preparation of tools and methodologies for analyzing the societal benefits of GEOSS, which should be applied in a follow-up project. Several tools already have been taken over directly in related projects by the coordinator and some of the partners. Such an example is [www.geo-wiki.org](http://www.geo-wiki.org) –a Google-Earth-based validation tool for land cover products.

### EFI+ (Improvement and spatial extension of the European Fish Index)

The European Water Framework Directive (WFD) requires a standardised, fish-based protocol for assessing the ecological status of rivers. Between 2001 and 2004 the EC-funded FAME project aimed at development, evaluation and implementation of standardised fish-based methods to assess the ecological status of running waters in Europe. The main output of FAME was the European Fish Index (EFI), the first standardised fish-based assessment method applicable across a wide range of European rivers. The EFI employs a number of environmental descriptors to predict biological reference conditions and quantifies the deviation from reference conditions on a statistical basis. The EFI was developed for Western and Northern Europe and calibrated against a rough estimate of human pressure status. Although a wide range of river types was included in the development of the EFI, very large rivers were underrepresented. EFI is now used and tested in several European countries within the national monitoring programmes of the WFD.



**Instrument:** STREP, **Duration:** 2 Years

**Budget:** 1.320.723 Mio €,

**EU-Contribution:** 899.960 Mio €

**Coordinator:** University of Natural Resources and Applied Life Sciences Vienna (BOKU); Institute of Hydrobiology and Aquatic Ecosystem Management; Austria (Prof. Dr. Stefan Schmutz)

**Internet:** <http://efi-plus.boku.ac.at>

The new European Fish Index (EFI+) provides a user-friendly web-based assessment tool compliant with the WFD. Calibrated and tested in 15 European countries the EFI+ reveals that more than half of European running waters fails the “good ecological status” as defined in the WFD, whereas water pollution, channelization and hydro power are the main reasons for a degraded ecological status.

The quality of an assessment method depends on the amount and quality of data to calibrate the method. Fish data from field samples are very expensive and therefore availability and access are limited. While institutions usually deny to exchange data at the national level the EFI+ project encouraged 14 partners to **establish and share a common European database** with 30 000 samples of 14 000 sites including information on 6 million individual fish.



*“The experiences from the former project FAME helped a lot to submit and coordinate EFI+. However, EFI+ was only funded for two years which is too short for an EU project of such a dimension.”*

(Prof. Dr. Stefan Schmutz)

During the length of the project a number of students working either on their **master** or **PhD thesis** took the opportunity to make their first steps into the international scientific community. To present results to a high ranked group of experts is quite a challenge for young scientists. But the overwhelming friendly and stimulating atmosphere inside the team helped the students to achieve their first merits.

Two end-user **workshops** in UK and Romania with 80 participants from the scientific, administrative and business sector were organised.

With the help of the web-based software <http://efi-plus.boku.ac.at> the participants were able to calculate successfully the ecological status for their own data and a site sampled during the workshop.



*“Luckily FAME and EFI+ not only fostered professional partnerships among many European countries but also stimulated long-lasting private contacts and relationships. At least two couples evolved out of the projects!”*  
(Prof. Dr. Stefan Schmutz)

## CIRCLE (Climate Impact Research Coordination for a Larger Europe)

Climate change is increasingly seen as one of the greatest issues the world will face in the 21<sup>st</sup> century. Whatever the success of mitigating climate change may be, certain impacts are unavoidable and European countries will need to adapt to those impacts.

Their adaptation responses must be informed by a coherent body of research and it is CIRCLE's prime objective to contribute to such efforts by aligning national research programmes using a complete application of the ERA-Net principles. CIRCLE adopts an interdisciplinary approach that allows the exchange of knowledge and experiences between research groups, including the integration of the various disciplines concerned, like climatology, meteorology, hydrology, biology, soil sciences, marine sciences and forestry, building technologies, sociology and medicine.



**Instrument:** ERA-NET-CA, **Duration:** 4 Years  
**Budget:** 2.765.999 Mio €,  
**EU-Contribution:** 2.765.999 Mio €  
**Coordinator:** Umweltbundesamt GmbH (UBA); Austria (Dipl.-Geogr. Martin König)  
**Internet:** <http://www.circle-era.net/>

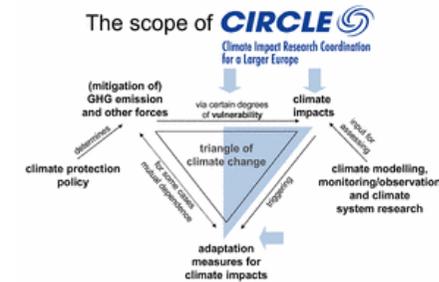
During the project 20 CIRCLE partner countries (18 with contractors and 10 observers) have networked and aligned their (Climate Change Impact, Adaption and Vulnerability) CCIAV research agendas by joint strategies, joint calls (of about 4.5 mio € budget) and a clear commitment for the future. The environmental issues addressed during the project were the CCIAV on a transnational research policy level and stimulating the setting up of geographical focal networks (CIRCLE MEDiterranean, CIRCLE Nordic, CIRCLE CEE, CIRCLE Mountain Countries).

Within the CCIAV the research funders and managers created a strong network facing all positive (CC high on political agenda, many CCIAV programmes coming up) and negative (shifts in research budgets due to economic downturn) implications. A **main goal** was to make information on national CCIV programmes public, a strategic focus on our main fields for future cooperations and derive technical tools for launching joint calls. Furthermore to get over the bureaucratic hurdles for joint calls and launching three of them.



It was a **real challenge** to overcome the pure national points of view and to develop a real CIRCLE mission. The success was mainly due to having a very concise and structured work plan and by realising that a common CIRCLE vision helps all national research agendas in creating synergies by saving duplications and tackle climate impacts by transnational cooperation.

Even now CIRCLE is just preparing a joint call for climate impacts and adaptation measures in mountain regions with at least 1.8 mio € funding in which Austria takes part.



During the project a **staff exchange programme** was implemented. The Portuguese partner stayed at the Umweltbundesamt in Vienna for five months. This was an ideal setting since the Portuguese partner will take over the coordination for the follow up project CIR<sup>2</sup>CLE that was submitted in April 2009. This enables a really smooth hand over of the CIRCLE to CIR<sup>2</sup>CLE.

*“CIRCLE filled really a gap in the market and thus it helped to enlarge and empower the network significantly. Having such a big network throughout Europe involved also a process of mutually learning the different (legal, financial and cultural) constraints of the partners.”*  
 (Dipl.-Geogr. Martin König)

### Assess-HKH (Development of an assessment System to Evaluate the Ecological Status of Rivers in the Hindu Kush-Himalayan Region)

Rivers in the Hindu Kush-Himalayan (HKH) region are subject to manifold pressures (e.g. organic pollution, waste dumping, river damming).

Pollution significantly reduces the biodiversity in rivers. The water quality deteriorates and the self purification capacity diminishes, which finally compromises its usage for drinking water supply. To guarantee a sustainable water management, new, integrative tools are needed to detect and measure the degree of the various sources of pollution. Due to the lack of bio-assessment in Asia the **ASSESS-HKH project can be regarded as a pilot study for the HKH region in the field of biological river quality monitoring.**



**Instrument:** STREP **Duration:** 3 Years

**Budget:** 1.329.412€

**EU-Contribution:** 1.329.412€

**Coordinator:** University of Natural Resources and Applied Life Sciences Vienna (BOKU); Dept. of Water Atmosphere, Environment; Inst. Of Hydrobiology and Aquatic Ecosystem Management; Austria (Univ.Prof.Dr. Otto Moog)

**Internet:** [www.assess-hkh.at](http://www.assess-hkh.at)



As **main scientific achievements**, three methods for monitoring the ecological status of rivers with different levels of precision were developed: a rapid field bio-assessment, the HKHscreening; a region specific biotic score, the HKHbios and the multimetric based HKHindex method, which presents the highest level of precision. Furthermore a software for data input and calculations of results (ECODAT) was computed.

The “scientific heart” of the software is the HKH taxa catalogue which is the first activity to collect a zoological species inventory of the rivers and streams in the HKH region. All products of ASSESS-HKH are freely available for the public via the ASSESS-HKH website.

Moreover in the field of implementing the project results, several activities beyond the project have already been undertaken or are in progress (e.g. Pakistan and Bhutan explore the possibilities to establish regular water quality monitoring).

*“From the scientific perspective a further cooperation with the partners would be interesting, e.g. to refine the methods, to cover more river types in the HKH region and/ or to extend the studies to regions adjacent to countries covered so far. As the administrative time and effort for the ASSESS HKH project was so huge, co-operation with a smaller consortium or with single partners would be better.”* (Univ.Prof.Dr. Otto Moog)

Difficulties in the project implementation arose mainly from the administrative point of view, as the Asian partners did not have any experience with EU-funded projects and EU administration. To circumvent this, an internal quarterly reporting system was established to ensure the detection of problems at the earliest stage possible. At each project meeting, a specific session was dedicated to financial questions and financial reporting and the personal contact came out to be crucial to solve problems successfully and the thoroughly planned kick off meeting was a major step for the success of the project.



Within this project the co-ordinating institution-BOKU- has a long term cooperation with the Katmandu University (KU) in Nepal. Several students have enrolled their PhD thesis at BOKU in the field of water related research. Amongst them Dr. Subodh Sharma is now Professor at KU. During a workshop were several institutions working on water issues were participating Prof. Moog and Prof. Sharma agreed to establish a co-operation and to look for funds to develop assessment systems for the quality of rivers. Asian partners were found via personal contacts mainly via the KU.

**SUSTDEV: Global change and ecosystems  
(Projects with Austrian participation)**

***3.1: Impact and mechanisms of greenhouse gas emissions and atmospheric pollutants on climate, ozone depletion and carbon sinks***

***3.2: Water cycle including soil-related aspects***

***3.3: Biodiversity and ecosystems***

***3.4: Mechanisms of desertification and natural disasters***

***3.5: Strategies for sustainable land management, including coastal zones, agricultural land and forests***

***3.6: Operational forecasting and modelling including global climatic change observation systems***

***3.7: Complementary Research***

***3.8: Cross-cutting issue: Sustainable Development concepts and tools***

***3.9: Specific support actions (covering several areas)***

<b>Project-No.</b>	505572	<b>Instrument</b>	IP	<b>Funding from</b>	
<b>Call</b>	FP6-2002-Global-1	<b>Duration [months]</b>	60	<b>EU-Frameworkprogramme [EUR]</b>	16.310.000
<b>Activity Code</b>	SUSTDEV-2002-3.1.1				
<b>Acronym</b>	CARBOEUROPE-IP	<b>Homepage</b>	<a href="http://www.carboeurope.org/">http://www.carboeurope.org/</a>		

**Name**            **ASSESSMENT OF THE EUROPEAN TERRESTRIAL CARBON BALANCE**

#### **Abstract**

The overarching aim of the CarboEurope-IP is to understand, quantify and predict the terrestrial carbon balance of Europe and the uncertainty at local, regional and continental scale. This is achieved by

- (1) executing a strategically focussed set of surface based ecological measurements of carbon exchange;
- (2) further enhancement of an atmospheric high precision observation system for CO<sub>2</sub> and other trace gases;
- (3) execution of a regional high spatial resolution experiment, and
- (4) integration of these components by means of innovative data assimilation systems and modelling.

The key innovation of the CarboEurope-IP is solving the scientific challenge of quantifying the terrestrial carbon balance at different scales and with known, acceptable uncertainties. The increase in spatial and temporal resolution of the observational and modelling program will allow for the first time a consistent application of a multiple constraint approach of bottom-up and top-down estimates to determine the terrestrial carbon balance of Europe with the geographical patterns and variability of sources and sinks. CarboEurope-IP aims at providing a system for full carbon accounting for the European continent, and it will further investigate the main controlling mechanisms of carbon cycling in European ecosystems, such as climate, land management, and nitrogen deposition, and provide future projections of the Carbon Cycle. CarboEurope-IP integrates and expands the research efforts of 65 European institutes. CarboEurope-IP addresses basic scientific questions of high political relevance.

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<b>Project-No.</b>	505345	<b>Instrument</b>	SSA	<b>Funding from</b>
<b>Call</b>	FP6-2002-Global-1	<b>Duration [months]</b>	24	<b>EU-Frameworkprogramme [EUR]</b> 289.656
<b>Activity Code</b>	SUSTDEV-2002-3.4.1			
<b>Acronym</b>	NEU-CO2-III	<b>Homepage</b>	<a href="http://www.chem.uu.nl/nws/www/nenergy/">http://www.chem.uu.nl/nws/www/nenergy/</a>	

**Name**            **Non-energy use and CO<sub>2</sub> emissions**

### Abstract

A significant fraction of fossil fuels is consumed as non-energy use, i.e. as feedstock for the manufacture of synthetic materials and chemical products, e.g. plastics, paints, solvents, lubricants and bitumen. In the long run, these products contribute substantially to CO<sub>2</sub> emissions. In Western Europe, non-energy use represents 11-12% of the total amount of fossil fuels for final consumption. In other parts of the world, the manufacture of non-energy products is increasing very rapidly, e.g. in China. CO<sub>2</sub> emissions from non-energy use continue to be a major source of uncertainty in national greenhouse gas (GHG) emission accounting. The NEU-CO<sub>2</sub> network has been working on this issue since 1999. In this proposal the continuation of the network is applied for (Phase III).

Given the success of the network to date, the goals of Phase III are:

- to expand the existing network by a Chinese, German, South Korean & South African partner;
- to develop the so-called Simplified Approach, which requires much less data than the NEAT model (developed in Phase I&II) and can hence be applied worldwide more easily;
- to apply it to all countries represented in the NEU-CO<sub>2</sub> network and to evaluate the accuracy of the results by comparison with detailed country-specific estimation methods;
- to pool bottom-up information on materials with complicated pathways in production, use and waste management such as solvents and lubricants;
- to monitor the experience made with the improved IEA/EUROSTAT energy balance questionnaire and to make further steps towards harmonisation;
- to initiate and accompany national analyses similar to those for the Netherlands, Austria & Flanders in Belgium;
- to contribute to rewriting of the IPCC Guidelines for National GHG emission inventories in order to improve the terminology, remove ambiguity & contradictions and to introduce improved estimation methods;
- to disseminate the results by two workshops, the website & other means.

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<b>Project-No.</b>	017841-2	<b>Instrument</b>	IP	<b>Funding from</b>	
<b>Call</b>	FP6-2004-Global-3	<b>Duration [months]</b>	60	<b>EU-Frameworkprogramme [EUR]</b>	16.600.000
<b>Activity Code</b>	SUSTDEV-2004-3.1.1.1				
<b>Acronym</b>	NitroEurope IP	<b>Homepage</b>	<a href="http://www.nitroeuropa.eu/">http://www.nitroeuropa.eu/</a>		

**Name**            **The nitrogen cycle and its influence on the European greenhouse gas balance.**

### Abstract

The Nitro Europe IP - or NEU for short - addresses the major question: What is the effect of reactive nitrogen (Nr) supply on net greenhouse gas budgets for Europe?

The objectives are:

- (1) to establish robust datasets of N fluxes and net greenhouse-gas exchange(NGE) in relation to C-N cycling of representative European ecosystems, as a basis to investigate interactions and assess long-term change;
- (2) to quantify the effects of past and present global changes (climate, atmospheric composition, land-use/land-management) on CN cycling and NGE;
- (3) to simulate the observed fluxes of N and NGE, their interactions and responses to global change/land-management decisions, through refinement of plot-scale models;
- (4) to quantify multiple N and C fluxes for contrasting European landscapes, including interactions between farm-scale management, atmospheric and water dispersion, and consideration of the implications for net fluxes and strategies;
- (5) to scale up Nr and NGE fluxes for terrestrial ecosystems to regional and European levels, considering spatial variability and allowing assessment of past, present and future changes;
- (6) to assess uncertainties in the European model results and use these together with independent measurement/ inverse-modelling approaches for verification of European N<sub>2</sub>O and CH<sub>4</sub> inventories and refinement of IPCC approaches.

These objectives are met by a program that integrates:

- (a) an observing system for N fluxes and pools, (b) a network of manipulation experiments, (c) plot-scale C-N modelling, (d) landscape analysis, (e) European up-scaling and (f) uncertainty and verification of European estimates.

Cross-cutting activities address management, databases, training & dissemination. NEU will advance the fundamental understanding of C-N interactions at different scales and deliver: process-based models, landscape-level assessments, European maps of C-N pools, Nr fluxes and NGE, and independent verification of GHG inventories, as required under the Kyoto Protocol.

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<b>Project-No.</b>	505337	<b>Instrument</b>	NoE	<b>Funding from</b>	
<b>Call</b>	FP6-2002-Global-1	<b>Duration [months]</b>	12	<b>EU-Frameworkprogramme [EUR]</b>	11.220.000
<b>Activity Code</b>	SUSTDEV-2002-3.1.2				
<b>Acronym</b>	ACCENT	<b>Homepage</b>	<a href="http://www.accent-network.org">http://www.accent-network.org</a>		

**Name**            **ATMOSPHERIC COMPOSITION CHANGE: AN EUROPEAN NETWORK**

#### **Abstract**

Changes in atmospheric composition directly affect many aspects of life, determining climate, air quality and atmospheric inputs to ecosystems. In turn, these changes affect the fundamental necessities for human existence: human health, food production, ecosystem health and water. Atmospheric composition change research is therefore fundamental for the future orientation of Europe's Sustainable Development strategy. The overall goals of ACCENT are to promote a common European strategy for research on atmospheric composition change, to develop and maintain durable means of communication and collaboration within the European scientific community, to facilitate this research and to optimise two-way interactions with policymakers and the general public. ACCENT will establish Europe as an international leader in atmospheric composition change research, able to steer research agendas through its involvement in major international programmes. ACCENT furthermore aims to become the authoritative voice in Europe on issues dealing with atmospheric composition change and sustainability. The ACCENT joint research programme focuses on aerosols, biosphere atmosphere interaction and transport and transformation of pollutants and it also looks for new partnership in economic and Earth System analysis. Integration will be achieved by creating common facilities and activities including: a dedicated interactive web portal, models, data-bases, measurement platforms, training and education opportunities, quality assurance procedures and facilities, integrated assessment and synthesis of scientific results and an interface with the general public. The excellence and the commitment of the ACCENT Partnership guarantee an effective and durable integration of the European atmospheric composition change research and that it becomes a pillar of the European Research Area.

#### **Partners in Austria**

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<b>Project-No.</b>	036833-2	<b>Instrument</b>	IP	<b>Funding from</b>	
<b>Call</b>	FP6-2005-Global-4	<b>Duration [months]</b>	48	<b>EU-Frameworkprogramme [EUR]</b>	9.999.627
<b>Activity Code</b>	SUSTDEV-2005-3.1.2.2				
<b>Acronym</b>	EUCAARI	<b>Homepage</b>	<a href="http://www.atm.helsinki.fi/eucaari/">http://www.atm.helsinki.fi/eucaari/</a>		

**Name**            **European Integrated project on Aerosol Cloud Climate and Air Quality interactions**

#### **Abstract**

The European Integrated project on Aerosol Cloud Climate and Air Quality Interactions, EUCAARI, brings together the leading European research groups, state-of-the-art infrastructure and key players from third countries to investigate the role of aerosol on climate and air quality. The objectives of EUCAARI are

(1) reduction of the current uncertainty of the impact of aerosol particles of the relationship between anthropogenic aerosol particles and regional air quality, and

(2) quality directives on global and regional climate, and provide tools for future quantifications for different stakeholders.

EUCAARI will also contribute to technological developments in the aerosol measurement industry, enhancing future experiments and air-quality monitoring networks.

The project is organised into four scientific elements designed to maximize the integration of methodologies, scales and ultimately our understanding of air quality and climate. New ground-based, aircraft and satellite measurements will be integrated with existing data to produce a global consistent dataset with the highest possible accuracy. A European measurement campaign will be designed around simultaneous multistation observations, Lagrangian aircraft measurements and carefully selected "super-sites". A hierarchy of models will be developed based on the results of the laboratory and theoretical investigations. The models will be used to interpret the measurements and will be integrated in regional air quality and global climate models. The result will be measurable improvements in the project's climate and air quality models. The outcomes (scenarios, recommendations, models, harmonized datasets and new knowledge) will be disseminated to authorities, policy makers, the research community, industry, instrument designers, and the EU-ESA Global Monitoring for Environment and Security (GMES).

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<b>Project-No.</b>	018476-2	<b>Instrument</b>	IP	<b>Funding from</b>	
<b>Call</b>	FP6-2004-Global-3	<b>Duration [months]</b>	36	<b>EU-Frameworkprogramme [EUR]</b>	12.905.000
<b>Activity Code</b>	SUSTDEV-2004-3.1.3.1				
<b>Acronym</b>	ADAM	<b>Homepage</b>	<a href="http://www.adamproject.eu/">http://www.adamproject.eu/</a>		

**Name**            **Adaptation and Mitigation Strategies: Supporting European climate policy**

#### **Abstract**

The core objectives of ADAM (Adaptation And Mitigation) are:

- (1) To assess the extent to which existing and evolving EU (and world) mitigation and adaptation policies can achieve a tolerable transition (a “soft landing”) to a world with a global climate no warmer than 2 degrees C above pre-industrial levels, and to identify their associated costs and effectiveness, including an assessment of the damages avoided compared to a scenario where climate change continues unchecked to 5 C.
- (2) To develop and appraise a portfolio of longer term strategic policy options that could contribute to addressing identified shortfalls both between existing mitigation policies and the achievement of the EU's 2 C target, and between existing adaptation policy development and implied EU goals and targets for adaptation.
- (3) To develop a novel Policy-options Appraisal Framework and apply it both to existing and evolving policies, and to new, long-term strategic policy options, so as to inform: European and international climate protection strategy in post-2012 Kyoto negotiations, a re-structuring of International Development Assistance, the EU electricity sector and regional spatial planning.

The ADAM project will lead to a better understanding of the synergies, trade-offs and conflicts that exist between adaptation and mitigation policies at multiple scales. Crucially, ADAM will support EU policy development in the next stage of the development of the Kyoto Protocol, in particular negotiations around a post-2012 global climate policy regime, and will inform the emergence of new adaptation strategies for Europe. The main impact of the ADAM project will be to improve the quality and relevance of scientific and stakeholder contributions to the development and evaluation of climate change policy options within the European Commission. This will help the Commission to deliver on its current medium-term climate policy objectives and help inform its development of a longer-term climate strategy.

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<b>Call</b>	FP6-2005-Global-4	<b>Duration [months]</b>	36	<b>EU-Frameworkprogramme [EUR]</b>	2.749.891
<b>Activity Code</b>	SUSTDEV-2005-3.1.3.2				
<b>Acronym</b>	CECILIA	<b>Homepage</b>	<a href="http://www.cecilia-eu.org/">http://www.cecilia-eu.org/</a>		

**Name**                    **Central and Eastern Europe Climate Change Impact and Vulnerability Assessment**

**Abstract**

The main objective of CECILIA is to deliver a climate change impacts and vulnerability assessment in targeted areas of Central and Eastern Europe. Emphasis is given to applications of regional climate modelling studies at a resolution of 10 km for local impact studies in key sectors of the region. The project contains studies of hydrology, water quality, and water management (focusing at medium-sized river catchments and the Black Sea coast), air quality issues in urban areas (Black Triangle –a polluted region around the common borders of the Czech Republic, Poland and Germany), agriculture (crop yield, pests and diseases, carbon cycle), and forestry (management, carbon cycle). Very high resolution simulations over this region are necessary due to the presence of complex topographical and land use features. The 25 km resolution regional simulations planned in other ongoing projects are inadequate for this. Climate change impacts on large urban and industrial areas modulated by topographical and land-use effects which can be resolved at the 10 km scale, are investigated by CECILIA. The high spatial and temporal resolution of dense national observational networks at high temporal resolution and of the CECILIA regional model experiments will uniquely feed into investigations of climate change consequences for weather extremes in the region under study. Comparison with the results based on statistical downscaling techniques will also be provided. Statistical downscaling methods for verification of the regional model results will be developed and applied, and assessments of their use in localization of model output for impact studies will be performed.

**Partners in Austria**

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<b>Project-No.</b>	036961-2	<b>Instrument</b>	IP	<b>Funding from</b>	
<b>Call</b>	FP6-2005-Global-4	<b>Duration [months]</b>	48	<b>EU-Frameworkprogramme [EUR]</b>	10.000.000
<b>Activity Code</b>	SUSTDEV-2005-3.1.3.1				
<b>Acronym</b>	CIRCE	<b>Homepage</b>	<a href="http://www.circeproject.eu/">http://www.circeproject.eu/</a>		

**Name**                    **Climate Change and Impact Research: the Mediterranean Environment**

#### **Abstract**

CIRCE aims at developing for the first time an assessment of the climate change impacts in the Mediterranean area. The objectives of the project are:

- (1) to predict and to quantify physical impacts of climate change in the Mediterranean area;
- (2) to evaluate the consequences of climate change for the society and the economy of the populations located in the Mediterranean area;
- (3) to develop an integrated approach to understand combined effects of climate change;
- (4) to identify adaptation and mitigation strategies in collaboration with regional stakeholders.

CIRCE wants to understand and to explain how climate will change in the Mediterranean area. The project will investigate how global and Mediterranean climates interact, how the radiative properties of the atmosphere and the radiative fluxes vary, the interaction between cloudiness and aerosol, the modifications in the water cycle. Recent observed modifications in the climate variables and detected trends will be compared. The economic and social consequences of climate change shall be evaluated by analyzing direct impacts on migration, tourism and energy markets together with indirect impacts on the economic system. CIRCE will moreover investigate the consequences on agriculture, forests and ecosystems, human health and air quality. The variability of extreme events in the future scenario and their impacts will be assessed. A rigorous common framework, including a set of quantitative indicators developed specifically for the Mediterranean environment will be developed and used in collaboration with regional stakeholders. The results will be incorporated in a decision support system tool and disseminated to the relevant users. Possible adaptation and mitigation strategies will be identified. The integrated results discussed by the project CIRCE will be presented in the first Regional Assessment of Climate Change in the Mediterranean area.

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<b>Call</b>	FP6-2005-Global-4	<b>Duration [months]</b>	36	<b>EU-Frameworkprogramme [EUR]</b>	2.020.990
<b>Activity Code</b>	SUSTDEV-2005-3.1.3.2				
<b>Acronym</b>	CLAVIER	<b>Homepage</b>	<a href="http://www.clavier-eu.org/">http://www.clavier-eu.org/</a>		

**Name**            **CLimate ChAnge and Variability: Impact on Central and Eastern EuRope**

#### **Abstract**

Observational records show that the global climate is changing and ongoing changes are also visible in Central Eastern Europe. About 64% of all catastrophic events in Europe since 1980 can directly be attributed to weather and climate extremes. Climate change projections show even an increasing likelihood of extremes. Certainly negative impacts of climate change will involve significant economic losses in several regions of Europe, while others may bring health or welfare problems somewhere else. Within CLAVIER three representative Central and Eastern European Countries (CEEC) will be studied in detail: Hungary, Romania, and Bulgaria. Researches from 6 countries and different disciplines, will identify linkages between climate change and its impact on weather patterns with consequences on air pollution, extreme events, and on water resources. Furthermore, an evaluation of the economic impact on agriculture, tourism, energy supply and the public sector will be conducted. This is of increasing importance for CEEC, which are currently facing a rapid economic development, but also for the European Union as e.g. Romania's and Bulgaria's high vulnerability from extreme events such as floods will impact not only the respective economic goals for joining the EU but also the EU solidarity fund. CLAVIER will focus on ongoing and future climate changes in Central and Eastern European Countries using measurements and existing regional scenarios to determine possible developments of the climate and to address related uncertainty. In addition, climate projections with very high detail will be carried out for CEEC to fulfill the need for a large amount of detail in time and space which is inherent in local and regional impact assessment. CLAVIER will establish a large data base, tools and methodologies, which contribute to reasonable planning for a successful development of society and economy in Central and Eastern European countries under climate change conditions.

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<b>Project-No.</b>	505539	<b>Instrument</b>	IP	<b>Funding from</b>	
<b>Call</b>	FP6-2002-Global-1	<b>Duration [months]</b>	60	<b>EU-Frameworkprogramme [EUR]</b>	15.000.000
<b>Activity Code</b>	SUSTDEV-2002-3.1.4.a				
<b>Acronym</b>	ENSEMBLES	<b>Homepage</b>	<a href="http://www.ensembles-eu.org">http://www.ensembles-eu.org</a>		

**Name**            **ENSEMBLE-based Predictions of Climate Changes and their Impacts**

#### **Abstract**

Prediction of both natural climate variability and human impact on climate is inherently probabilistic, due to uncertainties in forecast initial conditions, representation of key processes within models, and climatic forcing factors. Hence, reliable estimates of climatic risk can only be made through ensemble integrations of Earth-System Models in which these uncertainties are explicitly incorporated. For the first time ever, a common ensemble forecast system will be developed for use across a range of timescales (seasonal, decadal, and longer) and spatial scales (global, regional, and local). This model system will be used to construct integrated scenarios of future climate change, including both non-intervention and stabilisation scenarios. This will provide a basis for quantitative risk assessment of climate change and climate variability, with emphasis on changes in extremes, including changes in storminess and precipitation, and the severity and frequency of drought, and the effects of "surprises", such as the shutdown of the thermohaline circulation. Most importantly, the model system will be extensively validated. Hindcasts made by the model system for the 20th century will be compared against quality controlled, high-resolution gridded datasets for Europe. Probability forecasts made with the model system on the seasonal and decadal timescales will also be validated against existing data. The exploitation of the results will be maximised by linking the outputs of the ensemble prediction system to a wide range of applications. In turn, feedbacks from these impact areas back to the climate system will also be addressed. Thus ENSEMBLES will have a structuring effect on European research by bringing together an unprecedented spectrum of world-leading expertise. This expertise will be mobilised to maintain and extend European pre-eminence in the provision of policy-relevant information on climate and climate change and its interactions with society.

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##### **Role**

Partner

<b>Project-No.</b>	505390	<b>Instrument</b>	IP	<b>Funding from</b>	
<b>Call</b>	FP6-2002-Global-1	<b>Duration [months]</b>	60	<b>EU-Frameworkprogramme [EUR]</b>	15.000.000
<b>Activity Code</b>	SUSTDEV-2002-3.1.5				
<b>Acronym</b>	SCOUT-03	<b>Homepage</b>	<a href="http://www.ozone-sec.ch.cam.ac.uk/scout_o3">http://www.ozone-sec.ch.cam.ac.uk/scout_o3</a>		

**Name**            **Stratosphere-Climate Links With Emphasis On The UTLS**

#### **Abstract**

Reliable prediction of the future evolution of the ozone layer and surface UV is urgently required as a basis for informed decisions by European policy makers. The state of the ozone layer over the next decades will depend on the interplay between climate change and the impact and evolution of ozone depleting substances such as CFCs. The Montreal Protocol has successfully in reduced emissions and atmospheric concentrations of CFCs, which should return to their pre-ozone hole concentrations by about 2050. However, the ozone layer will most likely not return to its pre-ozone hole state and so the central question of the Montreal process - how and when will ozone and UV radiation recover as CFC concentrations fall? - remains. Indeed, in order to provide essential advice to policy makers, the answer to that question is required within the next years.

In this ambitious integrated project, the European predictive capability will be strengthened by focusing effort on 6 main interlinked areas of research: (1) coupled chemistry/climate models; (2) the tropical UTLS; (3) extra tropical ozone and water vapour; (4) UV radiation; (5) global modelling; (6) and fundamental chemical and microphysical processes.

Strong scientific management, built on Europe's excellent previous experience in stratospheric science, will bring together a critical mass of European experts in laboratory studies, atmospheric measurements and modelling. It will exploit new satellite data, such as from ENVISAT, and new modelling approaches (e.g. fully coupled chemistry-climate models; and the growing interaction with the numerical weather forecasting community), and take advantage of new and existing research facilities being developed at the national level. Valuable information for the assessment of the atmospheric impact of aviation will be obtained. This integrated project will thus provide essential information to European government and industry and will maintain Europe's leading position.

#### **Partners in Austria**

<b>Organisation</b>	<b>Contact</b>	<b>E-Mail-Adress</b>	<b>Role</b>
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Universität für Bodenkultur Wien (BOKU)	ao.Univ.Prof. Mag.Dr. Philipp Weihs	weihs@mail.boku.ac.at	Partner
Medizinische Universität Innsbruck (Sektion für Biomedizinische Physik)	ao.Univ.Prof. Dr. Mario Blumthaler	Mario.Blumenthaler@i-med.ac.at	Partner

<b>Project-No.</b>	37024	<b>Instrument</b>	STREP	<b>Funding from</b>	
<b>Call</b>	FP6-2005-Global-4	<b>Duration [months]</b>	36	<b>EU-Frameworkprogramme [EUR]</b>	2.350.000
<b>Activity Code</b>	SUSTDEV-2005-3.2.1.2				
<b>Acronym</b>	HYDRATE	<b>Homepage</b>	<a href="http://www.emwis.net/initiatives/foI060732/proj752576">http://www.emwis.net/initiatives/foI060732/proj752576</a>		

**Name**            **Hydrometeorological data resources and technologies for effective flash flood forecasting**

#### **Abstract**

The management of flash flood hazards and risks is a critical component of public safety and quality of life. Flash-floods develop at space and time scales that conventional observation systems are not able to monitor for rainfall and river discharge. Consequently, the atmospheric and hydrological generating mechanisms of flash-floods are poorly understood, leading to highly uncertain forecasts of these events. The HYDRATE objective is to improve the scientific basis of flash flood forecasting by extending the understanding of past flash flood events, advancing and harmonising a European-wide innovative flash flood observation strategy and developing a coherent set of technologies and tools for effective early warning systems. To this end, the project includes actions on the organization of the existing flash flood data patrimony across Europe. The observation strategy proposed in HYDRATE has the objective to collect flash flood data by combining hydro-meteorological monitoring and the acquisition of complementary information from post-event surveys. This will involve a network of existing Hydro-meteorological Observatories; all placed in high flash flood potential regions. HYDRATE will develop a freely accessible European Flash Flood Database to make available the collected hydro-meteorological data to the international research community. The final aim of HYDRATE is to enhance the capability of flash flood forecasting in ungauged basins by exploiting the extended availability of flash flood data and the improved process understanding. The Partners include nine universities, seven government research centres, and one SME. These represent eight Member States, one Associated Candidate State and three third countries. Thus the results of HYDRATE will benefit from assembling international knowledge and scientific expertise and lead to advancements in observation strategy for implementation not only in Europe but internationally.

#### **Partners in Austria**

##### **Organisation**

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##### **Role**

Partner

<b>Project-No.</b>	036946-2	<b>Instrument</b>	IP	<b>Funding from</b>	
<b>Call</b>	FP6-2005-Global-4	<b>Duration [months]</b>	48	<b>EU-Frameworkprogramme [EUR]</b>	9.980.096
<b>Activity Code</b>	SUSTDEV-2005-3.2.1.1				
<b>Acronym</b>	WATCH	<b>Homepage</b>	<a href="http://eu-watch.org/">http://eu-watch.org/</a>		

**Name**            **WATer and global Change**

**Abstract**

The Integrated Project (WATCH) which will bring together the hydrological, water resources and climate communities to analyse, quantify and predict the components of the current and future global water cycles and related water resources states, evaluate their uncertainties and clarify the overall vulnerability of global water resources related to the main societal and economic sectors.

WATCH project will:

- (1) analyse and describe the current global water cycle, especially causal chains leading to observable changes in extremes (droughts and floods);
- (2) evaluate how the global water cycle and its extremes respond to future drivers of global change (including greenhouse gas release and land cover change);
- (3) evaluate feedbacks in the coupled system as they affect the global water cycle;
- (4) evaluate the uncertainties in the predictions of coupled climate-hydrological- land-use models using a combination of model ensembles and observations;
- (5) develop an enhanced (modelling) framework to assess the future vulnerability of water as a resource, and in relation to water/climate related vulnerabilities and risks of the major water related sectors, such as agriculture, nature and utilities (energy, industry and drinking water sector);
- (6) provide comprehensive quantitative and qualitative assessments and predictions of the vulnerability of the water resources and water-/climate-related vulnerabilities and risks for the 21st century;
- (7) collaborate intensively with the key leading research groups on water cycle and water resources in USA and Japan;
- (8) collaborate intensively in dissemination of its scientific results with major research programmes worldwide (WCRP, IGBP);
- (9) collaborate intensively in dissemination of its practical and applied results with major water resources and water management platforms and professional organisations worldwide (WWC, IWA) and at a scale of 5 selected river basins in Europe.

**Partners in Austria**

**Organisation**

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(IIASA)

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**Role**

Partner

<b>Project-No.</b>	505428	<b>Instrument</b>	IP	<b>Funding from</b>	
<b>Call</b>	FP6-2002-Global-1	<b>Duration [months]</b>	60	<b>EU-Frameworkprogramme [EUR]</b>	12.999.992
<b>Activity Code</b>	SUSTDEV-2002-3.2.2.2.a				
<b>Acronym</b>	AQUATERRA	<b>Homepage</b>	<a href="http://www.eu-aquaterra.de">http://www.eu-aquaterra.de</a>		

**Name**            **Understanding river-sediment-soil-groundwater interactions for support of management of waterbodies (river basin & catchment areas)**

### Abstract

Global and particularly climate change may have an adverse impact on water quantity and quality. In the water cycle, soil is a key element affecting groundwater recharge as well as chemical composition of both, subsurface and surface waters which additionally are affected by sediments. Proper functioning of the system depends on key biogeochemical processes determining the filter, buffer and transformation capacity of soils and sediments.

Main objectives of this proposal are

- (1) to identify and quantify the relevant processes likely to be affected by climate change;
- (2) the early identification of adverse trends (in water quantity and quality), and
- (3) the development of integrated numerical soil-water system models reflecting all relevant transport processes.

With that, the proposal addresses all relevant scales: starting from the micro-scale with key biogeochemical processes, transport of dissolved species, pollutants as well as suspended matter in soils and groundwater systems, input/output mass balances of priority pollutants at the catchment scale, and finally selected study cases at the watershed and regional scales from major river basins in Europe (accounting for different climates from the North to the South). The proposal aims at the integration of the developed knowledge into the IP and the stakeholders needs, by a better merge of natural and engineering sciences with economic and social sciences, involving practitioners and community of application to elaborate operational tools for the different stakeholders (policy makers in relation with the current and future legal framework, water managers, land planners, transport planners, etc.).

A major effort of the proposal is focussed on the dissemination and exploitation of the project results through structured workshops, dedicated short courses, and active participation in national and international conferences.

### Partners in Austria

<b>Organisation</b>	<b>Contact</b>	<b>E-Mail-Adress</b>	<b>Role</b>
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<b>Project-No.</b>	3985	<b>Instrument</b>	CA	<b>Funding from</b>	
<b>Call</b>	FP6-2003-Global-2	<b>Duration [months]</b>	36	<b>EU-Frameworkprogramme [EUR]</b>	988.899
<b>Activity Code</b>	SUSTDEV-2004-3.2.2.2.b				
<b>Acronym</b>	EURODEMO	<b>Homepage</b>	<a href="http://www.eurodemo.info/">http://www.eurodemo.info/</a>		

**Name**            **European Platform for Demonstration of Efficient Soil and Groundwater Remediation**

**Abstract**

This Coordination Action aims to be the principal innovative platform in Europe concerning the characterisation, monitoring and remediation of contaminated land. A key element of this initiative is the involvement of relevant stakeholders from policy, research, service providers, industry, and also existing networks to develop commonly accepted protocols to certify novel technologies and to evaluate their efficiency. The basis for this process will be generated by making use of existing cases of European demonstration sites. Furthermore, the co-ordination and better information exchange among European demonstration initiatives will play a key role along the project. A common format for boundary conditions for the implementation of novel remediation technologies and a catalogue of these operating windows will be generated. Specific dissemination of structured information through the EUGRIS information platform and through specific workshops and training initiatives will ensure that sustainable land management in Europe is boosted.

**Partners in Austria**

**Organisation**

Umweltbundesamt GmbH (UBA)

Bundesministerium für Land- und Forstwirtschaft,  
Umwelt und Wasserwirtschaft (BMLFUW)

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**Role**

Coordinator

Partner

Projektmanager

<b>Project-No.</b>	505540	<b>Instrument</b>	IP	<b>Funding from</b>	
<b>Call</b>	FP6-2002-Global-1	<b>Duration [months]</b>	60	<b>EU-Frameworkprogramme [EUR]</b>	12.647.141
<b>Activity Code</b>	SUSTDEV-2002-3.2.2				
<b>Acronym</b>	EURO-LIMPACS	<b>Homepage</b>	<a href="http://www.eurolimpacs.ucl.ac.uk/">http://www.eurolimpacs.ucl.ac.uk/</a>		

**Name**            **Integrated Project to Evaluate the Impacts of Global Change on European Freshwater Ecosystems**

#### **Abstract**

Freshwater ecosystems, already under stress from land-use change and pollution, now face additional pressures from climate change, directly and through interaction with other drivers of change. Euro-limpacs is concerned with the science required to understand and manage the ecological consequences of these interactions. It is relevant to the Water Framework Directive and other European and wider international directives and protocols and supports the EU's Charter on Sustainable Development. The Project brings together a consortium of leading scientists aiming to integrate river, lake and wetland ecosystem science at the catchment scale. It focuses on the key drivers of aquatic ecosystem change (land-use, nutrients, acid deposition and toxic substances) and examines their interactions with global, especially climate, change using time-series analysis, space-for-time substitution, palaeolimnology, experiments and process modelling.

It considers these interactions at three critical time-scales:

- (1) hours/days, concerned with changes in the magnitude and frequency of extreme events;
- (2) seasons, concerned with changes in ecosystem function and life-cycle strategies of freshwater biota, and
- (3) years/decades, concerned with ecological response to environmental pressure, including stress reduction and ecosystem recovery.

A central activity is the development of an innovative toolkit for integrated catchment analysis and modelling to simulate hydrological, hydrochemical and ecological processes at the catchment scale for use in assessing the potential impact of global change under different climate and socio-economic scenarios. A unified system of ecological indicators for monitoring freshwater ecosystem health, and new methods for defining reference conditions and restoration strategies will also be developed. These will take into account the probable impacts of future climate change and the need for a holistic approach to restoration based on habitat connectivity.

#### **Partners in Austria**

<b>Organisation</b>	<b>Contact</b>	<b>E-Mail-Adress</b>	<b>Role</b>
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<b>Project-No.</b>	36938	<b>Instrument</b>	CA	<b>Funding from</b>	
<b>Call</b>	FP6-2005-Global-4	<b>Duration [months]</b>	42	<b>EU-Frameworkprogramme [EUR]</b>	1.612.298
<b>Activity Code</b>	SUSTDEV-2005-3.2.2.1				
<b>Acronym</b>	RISK-BASE	<b>Homepage</b>	<a href="http://www.riskbase.info/">http://www.riskbase.info/</a>		

**Name**                    **Coordination Action on Risk Based Management of River Basins**

**Abstract**

In RISKBASE leading European scientists and representatives of major, European stakeholder groups will review and synthesise the outcome of EC RTD Framework Program projects, and other major initiatives, related to integrated risk assessment-based management of the water/sediment/soil system at the river-basin scale. The synthesis will lead to the development of integrated risk assessment-based management approaches enabling the prevention and/or reduction of the negative impacts caused by human activities on that system.

RISKBASE aims to deliver:

- (1) an overarching concept, generic approach and guiding principles to integrated risk based management of river basins;
- (2) recommendations towards evolution and implementation of risk based management in national and community policies and towards implementation in management, and
- (3) a proposal for the European research agenda related to risk based management.

Based upon ample experience in previous EC CAs, Thematic Networks and/or Accompanying Measures, a simple project structure is chosen, with only a minimum number of Work Packages (WP). Each WP will be managed by one WP-leader, supported by a few other partners (contractors) in the project. The WPs will organise several workshops dedicated to specific issues related to risk based management at the river-basin scale.

Furthermore, RISKBASE will annually organise a General Assembly (GA) and will make use of EUGRIS as web-based information exchange structure. The workshops, GA and the website will be open to all who are interested and willing to contribute to achieve the RISKBASE goals and objectives. Furthermore, during the project, each WP will select core-team members to assist the WP-leader in reviewing, synthesising and then reporting of the outcome of WP-workshops. Thus an open, transparent and flexible structure is created ensuring the integration of all essential knowledge, expertise and experience in order to make RISKBASE a success.

**Partners in Austria**

<b>Organisation</b>	<b>Contact</b>	<b>E-Mail-Adress</b>	<b>Role</b>
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<b>Project-No.</b>	518066-1	<b>Instrument</b>	SSA	<b>Funding from</b>	
<b>Call</b>	FP6-2004-Global-3	<b>Duration [months]</b>	24	<b>EU-Frameworkprogramme [EUR]</b>	231.600
<b>Activity Code</b>	SUSTDEV-2002-3-SSA				
<b>Acronym</b>	African Water	<b>Homepage</b>	<a href="http://www.africanwater.org">http://www.africanwater.org</a>		

**Name**            **Action to promote involvement of African water researchers in the Framework Programme**

#### **Abstract**

The "African Water" SSA will take immediate action, and establish a framework, for long term improvement in the involvement of African researchers in the water research components of the Framework Programme. The "African Water" SSA is a vital component in the delivery of major EU and member state political commitments to strengthen African water research capacity. This SSA underpins the delivery of water specific commitments made at the Johannesburg WSSD and UN 12th Commission on Sustainable Development (New York 2004). In particular this SSA is an integral part of the EU Water Initiative, to deliver research capacity building in Africa. The "African Water" SSA will undertake a range of actions, developed by and in partnership with, African researchers. The SSA will bring together information, key researchers and research administrators in a targeted programme to provide African researchers with the knowledge and tools to more actively participate in all aspects of the Framework Programme. A key output of this SSA will be for Africans to define their own research priorities and to feed these topics through to the FP7 programme. This SSA will have the catalytic effect of increasing African involvement in other research programmes (member states, international agencies, etc). Actions to be undertaken as part of this SSA will include: information dissemination through workshops, conference presentations, publicity actions, email bulletins, focussed explanatory guidance documents. All will be made accessible thorough the web and as hard copy. Actions will also be taken to increase European awareness of African research capacity in order to foster outreach to Africa from EU researchers. The "African Water" SSA will increase cost effectiveness by working in partnership with complementary action being undertaken by donors, international agencies, NGOs, charitable foundations and the private sector.

#### **Partners in Austria**

<b>Organisation</b>	<b>Contact</b>	<b>E-Mail-Adress</b>	<b>Role</b>
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<b>Project-No.</b>	36954	<b>Instrument</b>	CA	<b>Funding from</b>	
<b>Call</b>	FP6-2005-Global-4	<b>Duration [months]</b>	36	<b>EU-Frameworkprogramme [EUR]</b>	1.149.000
<b>Activity Code</b>	SUSTDEV-2005-3.2.3.8				
<b>Acronym</b>	ANTINOMOS	<b>Homepage</b>	<a href="http://www.semide.net/">http://www.semide.net/</a>		

**Name**            **A knowledge Network for solving real-life water problems in developing countries: Bridging contrasts**

**Abstract**

The proposal aims at contributing to global and local knowledge networks for solving real life water supply and sanitation (WSS) problems in developing countries in view of reaching the MDGs. Based on an account of failures of WSS interventions in the last decades, ANTINOMOS aims at making an impact through bridging contrasts (between conceptual approaches, or between perceptions of global and local knowledge networks) and knowledge gaps (between knowledge areas which have only recently been recognized by decision makers as a key issue in reaching the MDGs). The core part of the proposal will be devoted to try to bridge these contrasts and knowledge gaps. For this purpose, special attention will be devoted to link state-of-the-art technological advancement in WSS with local resources and grassroots innovations, in order to enable context-specific learning opportunities for more sustainable solutions to real water problems. First, based on a systems approach, a number of technological systems and practices for WSS will be studied and analysed. Both technological systems based on "outside knowledge", i.e. "expert knowledge" as well as systems based on "inside", i.e. "indigenous knowledge", will be studied.

Then, special learning devices and knowledge management tools will be developed (where feasible in cooperation with international and local knowledge networks) and applied, in order to foster cross-fertilization between knowledge frames and global-local interaction. Involvement of key decision-makers and change agents at the local level will be a key step to facilitate uptake and integration of solutions in real life. In this perspective, the two primary objectives of the proposal will be:

- (1) Bridging contrasts and antinomies through the development of learning spaces across individual disciplines;
- (2) Support both international and local knowledge networks through the generation of new knowledge and the development of innovative knowledge management tools.

**Partners in Austria**

<b>Organisation</b>	<b>Contact</b>	<b>E-Mail-Adress</b>	<b>Role</b>
Centre for Environmental Management and Decision Support	ao.Univ.Prof. Dr. Norbert Brunner		Partner

<b>Project-No.</b>	36952	<b>Instrument</b>	STREP	<b>Funding from</b>	
<b>Call</b>	FP6-2005-Global-4	<b>Duration [months]</b>	36	<b>EU-Frameworkprogramme [EUR]</b>	2.871.492
<b>Activity Code</b>	SUSTDEV-2005-3.2.3.6				
<b>Acronym</b>	BRAHMATWINN	<b>Homepage</b>	<a href="http://www.brahmatwinn.uni-jena.de/">http://www.brahmatwinn.uni-jena.de/</a>		

**Name**            **Twinning European and South Asian river basins to enhance capacity and implement adaptive integrated water resources management approaches**

### Abstract

BRAHMATWINN will enhance capacity to carry out a harmonised integrated water resources management (IWRM) approach as addressed by the European Water Initiative (EWI) in headwater river systems of alpine mountain massifs already impacted from climate change, and to establish transfer of professional IWRM expertise, approaches and tools based on case studies carried out in twinning European and Asian river basins.

With eleven work packages (WP) the project addresses all important IWRM issues in a balanced way, including conflict resolution in the transboundary twinning Upper Danube River Basin (UDRB) and the Upper Brahmaputra River Basins (UBRB) in Europe and Southeast Asia respectively.

Within seventy work tasks of the jointly identified WP social and natural scientists in cooperation with water law experts and local stakeholders will realize the project outcomes:

- (i) an integrated holistic approach and assessment of the transboundary UDRB and UBRB for sustainable IWRM;
- (ii) integrated indicators to quantify the natural environment and human dimension, selected to assess IWRM vulnerabilities;
- (iii) an integrated water resources management system (IWRMS) comprising the DANUBIA hydrological model, the river basin information system (RBIS) and the network analysis, creative modelling decision support system NetSyMod;
- (iv) a set "what-if?" scenarios, evaluated using the DPSIR approach, and associated adaptive IWRM options tested by means of the IWRMS to mitigate impacts of likely climate change, and
- (v) IWRM action plans based on the stakeholder negotiation and the governance assessment.

The project consortium comprising fifteen partners from Europe (10 partner) and Asia (5 partner) shares the financial grant requested proportionally and will guarantee the generation of the necessary synergism required to represent the complex system component interaction and to carry out the required knowledge transfer between Europe and Asia.

### Partners in Austria

<b>Organisation</b>	<b>Contact</b>	<b>E-Mail-Adress</b>	<b>Role</b>
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<b>Project-No.</b>	36845	<b>Instrument</b>	STREP	<b>Funding from</b>	
<b>Call</b>	FP6-2005-Global-4	<b>Duration [months]</b>	36	<b>EU-Frameworkprogramme [EUR]</b>	2.799.323
<b>Activity Code</b>	SUSTDEV-2005-3.2.3.2				
<b>Acronym</b>	NEPTUNE	<b>Homepage</b>	<a href="http://www.eu-neptune.org">http://www.eu-neptune.org</a>		

**Name**            **New sustainable concepts and processes for optimization and upgrading municipal wastewater and sludge treatment**

#### **Abstract**

The scope of sewage treatment is changing: Up to date municipal wastewater treatment plants (WWTP) were seen as an end-of-pipe treatment just before discharge, having the aim to avoid eutrophication and hygienic health hazard in surface water. Due to the global demographic trends as well as new legislations (e.g. the Water Framework Directive, WFD) increased focus is put on quantity and quality of effluents: WWTP are more and more seen as interface between sanitation and environment, delivering resources to the environment or human activities (recharge of drinking water reservoirs, recycling of nutrient, efficient energy use).

This focus shift has implications on the quality goals set for WWTP products: land requirement, effluent N, P load, effluent pathogen load, energy optimization.

New focus: nutrient recycling, micropollutants: ecotoxicology of the effluent energy production.

NEPTUNE is focusing on technology solutions allowing to meet present and future standards via upgrading of existing infrastructure (new control strategies with online sensors; effluent upgrading with oxidation, activated carbon or wetland treatment; sludge processing for safe nutrient recycle) as well as via new techniques (fuel cell applications; new oxidative agents; polymer production from sludge). By including pathogen and ecotoxicity aspects into life cycle assessment studies (LCA), the project is helping improve the comparability of various technical options and propose a suitability ranking. The new focus given by the WFD and the emerging interest on organic (eco-)toxic compounds requires characterizing treated effluent and treatment technologies concerning ecotoxicologic aspects and micropollutants. The project is contributing to this discussion by ecotoxicity assessment and micropollutant fate studies.

#### **Partners in Austria**

##### **Organisation**

Scan Messtechnik GmbH

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##### **Role**

Partner

<b>Project-No.</b>	37099	<b>Instrument</b>	CA	<b>Funding from</b>	
<b>Call</b>	FP6-2005-Global-4	<b>Duration [months]</b>	24	<b>EU-Frameworkprogramme [EUR]</b>	1.541.800
<b>Activity Code</b>	SUSTDEV-2005-3.2.3.7				
<b>Acronym</b>	NETSSAF	<b>Homepage</b>	<a href="http://www.netssaf.net/">http://www.netssaf.net/</a>		

**Name**                **Network for the development of Sustainable Approaches for large scale implementation of Sanitation in Africa**

**Abstract**

Without a sharp acceleration in the rate of progress, the world will miss the MDG sanitation target by half a billion people. For instance, in sub-Saharan Africa almost two-thirds of the population (64%) are lacking adequate access to excreta disposal facilities. In African countries the sanitation coverage varies from 84% in urban areas to 45% in rural areas. To achieve the year 2015 goal for urban water supply coverage an additional 210 million (194 in rural areas) people over the next 15 years will have to be provided with service. The proposed Coordination Action, aims to congregate the most relevant stakeholders in the field of sustainable sanitation in the Sub-Saharan African and European frame. NETSSAF will promote international cooperation between research organisations, associations, universities and social and governmental stakeholders in a European and Sub-Saharan African context, focussed in particular in the West African countries. A sustainable sanitation expert and research co-ordination platform and an expertise network will be established, in order to coordinate, assess and guide suitable research and strategic activities with the aim of identifying best practices, gaps in knowledge and barriers to further execution and to propose directions for futures research. The aim of the proposed network will be to develop a variety of innovative, adaptable and replicable approaches to sustainable sanitation, integrating appropriate low cost technologies in the context of community based management and their relevant governance, institutional frameworks and socio-economic constraints. The main outcome will be the development of a Participative Multi-stakeholder Sanitation Management Support Tool aimed for the end-users to be able to apply large scale sanitation concepts and technologies adapted to the different conditions prevailing in Africa.

**Partners in Austria**

<b>Organisation</b>	<b>Contact</b>	<b>E-Mail-Adress</b>	<b>Role</b>
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<b>Project-No.</b>	511179-2	<b>Instrument</b>	IP	<b>Funding from</b>	
<b>Call</b>	FP6-2003-Global-2	<b>Duration [months]</b>	48	<b>EU-Frameworkprogramme [EUR]</b>	11.999.961
<b>Activity Code</b>	SUSTDEV-2004-3.2.3.1.b				
<b>Acronym</b>	NEWATER	<b>Homepage</b>	<a href="http://www.newater.info">http://www.newater.info</a>		

**Name**            **New Approaches to Adaptive Water Management under Uncertainty**

### Abstract

The central tenet of the NeWater project is a transition from currently prevailing regimes of river basin water management into more adaptive regimes in the future. This transition calls for a highly integrated water resources management concept. NeWater identifies key typical elements of the current water management system and focuses its research on processes of transition of these elements to adaptive IWRM. Each key element is studied by novel approaches.

Key IWRM areas where NeWater is expected to deliver breakthrough results include:

- (1) governance in water management (methods to arrive at polycentric, horizontal broad stakeholder participation in IWRM);
- (2) sectoral integration (integration of IWRM and spatial planning; integration with climate change adaptation strategies, cross-sectoral optimisation and cost-benefit analysis);
- (3) scales of analysis in IWRM (methods to resolve resource use conflicts; transboundary issues);
- (4) information management (multi stakeholder dialogue, multi-agent systems modelling; role of games in decision making; novel monitoring systems for decision systems in water management);
- (5) infrastructure (innovative methods for river basin buffering capacity; role of storage in adaptation to climate variability and climate extremes);
- (6) finances and risk mitigation strategies in water management (new instruments, role of public-private arrangements in risk-sharing);
- (7) stakeholder participation; promoting new ways of bridging between science, policy and implementation.

The development of concepts and tools that guide an integrated analysis and support a stepwise process of change in water management is the corner-stone of research activities in the NeWater project. To achieve its objectives the project is structured into six work blocks, and it adopts a management structure that allows effective exchange between innovative and cutting edge research on integrative water management concepts.

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<b>Project-No.</b>	37025	<b>Instrument</b>	STREP	<b>Funding from</b>	
<b>Call</b>	FP6-2005-Global-4	<b>Duration [months]</b>	36	<b>EU-Frameworkprogramme [EUR]</b>	2.900.000
<b>Activity Code</b>	SUSTDEV-2005-3.2.3.7				
<b>Acronym</b>	ROSA	<b>Homepage</b>	<a href="http://rosa.boku.ac.at/">http://rosa.boku.ac.at/</a>		

**Name**            **Resource-Oriented Sanitation concepts for peri-urban areas in Africa**

**Abstract**

The UN Millennium Development Goals (MDGs, target 10) call for halving the proportion of people without access to safe drinking water and basic sanitation by 2015. ROSA promotes resource-oriented sanitation concepts as a route to sustainable and ecologically sound sanitation in order to meet the MDGs. These concepts shall be applied in four cities in East-Africa, namely Arbaminch (Ethiopia), Nakuru (Kenya), Arusha (Tanzania) and Kitgum (Uganda). The consortium comprises 2 partners from each of these countries, a university and an end-user. For the model cities strategic sanitation & waste plans (SSWPs) will be developed for the whole city area. These SSWPs will come up with the best solution for the city combining several techniques (resulting in hybrid systems) according to the local requirements. Within the project a part of the SSWPs will be developed in peri-urban areas, where there is a lot of research need for resource-oriented sanitation. Research topics addressed within ROSA are targeting the gaps for the implementation of these concepts in peri-urban areas. They include e.g. an implementation study of the updated WHO-guidelines for use of waste and excreta, the improvement/adaptation of resource-oriented sanitation technologies and the development of community based operation and management strategies. For the implementation of the complete SSWPs the ROSA consortium will develop possibilities for financing. This will be facilitated by the already existing international network of the consortium and the strong link of the activities to on-going programmes/projects in East Africa (e.g. the "Lake Victoria Initiative" of the UN Habitat, the WSP of the Worldbank, the Dutch ISSUE Programme, the Swedish EcoSanRes Programme, etc.). Dissemination activities will be focused on establishing the local East African network between universities, end-users, etc. This network will ensure the consolidation and the replication of the knowledge gained within the region.

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<b>Project-No.</b>	16079	<b>Instrument</b>	STREP	<b>Funding from</b>	
<b>Call</b>	FP6-2004-Global-3	<b>Duration [months]</b>	36	<b>EU-Frameworkprogramme [EUR]</b>	1.159.800
<b>Activity Code</b>	SUSTDEV-2004-3.2.3.2.4				
<b>Acronym</b>	SUSAN	<b>Homepage</b>	<a href="http://www.susan.bam.de/">http://www.susan.bam.de/</a>		

**Name**                    **Sustainable and Safe Re-use of Municipal Sewage Sludge for Nutrient Recovery**

**Abstract**

Municipal sewage sludge (MSS) is a carrier of nutrients but is often contaminated by hazardous organic and inorganic pollutants. Therefore, it must be disposed of or the pollutants must be removed before agricultural use to protect farmland and human health. Disposal or immobilisation results in an irreversible loss of nutrients. The project is aimed to develop a sustainable and safe strategy for nutrient recovery from sewage sludges using thermal treatment. Mono-incineration of the sludges will completely destruct the organic pollutants in a first step. The incineration residues are ashes with a high phosphorus (P) content that still contain heavy metal compounds above the limits for agricultural use. Phosphorus in the ashes exhibits low bioavailability - a disadvantage in farming. Therefore, in a second thermochemical step heavy metals will be removed and P transferred into mineral phases available for plants. First investigations have shown that volatile heavy metal chlorides are formed by adding magnesium chloride at temperatures of 900-1000 °C and can be separated. Additionally, magnesium phosphates are built up resulting in P-bioavailability of up to 100%. These technologies will be developed and improved with focus on large-scale application aiming at P-fertiliser products. Intense agricultural investigations will guarantee marketability of the fertiliser. Advantages and disadvantages of the proposed technology will be analysed and compared to other treatment and management options. The comparison will be based on energy, material and substance balances as well as established evaluation methods and will quantify the contribution of all options to environmental protection and resource recovery. The method is both technically and economically feasible, it will solve an environmental protection problem and utilize a potential raw material. As a result, approx. 300,000 tonnes of phosphorus can be recovered as fertiliser in Europe.

**Partners in Austria**

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<b>Project-No.</b>	018320-2	<b>Instrument</b>	IP	<b>Funding from</b>	
<b>Call</b>	FP6-2004-Global-3	<b>Duration [months]</b>	60	<b>EU-Frameworkprogramme [EUR]</b>	13.242.749
<b>Activity Code</b>	SUSTDEV-2004-3.2.3.2.3				
<b>Acronym</b>	TECHNEAU	<b>Homepage</b>	<a href="http://www.techneau.org/">http://www.techneau.org/</a>		

**Name**            **TECHNEAU: technology enabled universal access to safe water**

#### **Abstract**

Many of the numerous small supply systems in rural areas in Europe and developing countries do not comply with regulations. Large centralised supply systems in industrialized regions are struggling to meet the challenge of a reliable, uninterrupted supply of water with a high level of compliance with standards and of minimal risk to human health, including the risk from deliberate contamination of water, whilst being accepted and trusted by consumers.

It is the vision of TECHNEAU that, in order to cope with present and future challenges, water supply systems should consider a transformation from mono-scale to flexible multi-scale systems i.e. interlinked centralised and decentralised satellite treatment, monitoring and control systems.

TECHNEAU will develop and demonstrate adaptive supply system options and new and improved supply and monitoring technologies and management practices. Treatment strategies will be based on robust multi-barrier schemes and control methodologies, providing safety against a broad spectrum of chemical and microbiological contaminants and avoiding organoleptic problems at the tap. Monitoring technologies will provide on-line and at the site information on water quality including parameters that relate to malicious contamination. Practices for risk assessment/risk management, operation and maintenance, and models for consumer acceptance will constitute the framework for these technologies.

These technologies and management practices will enable end-users to make informed choices, appropriate to their own circumstances and constraints, for cost-effective and sustainable source-to-tap solutions for the provision of safe high quality drinking water that has the trust of the consumer. This step-change will be achieved by a critical mass of researchers, technology developers and users from across Europe and developing countries.

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<b>Project-No.</b>	036822-2	<b>Instrument</b>	IP	<b>Funding from</b>	
<b>Call</b>	FP6-2005-Global-4	<b>Duration [months]</b>	48	<b>EU-Frameworkprogramme [EUR]</b>	6.993.477
<b>Activity Code</b>	SUSTDEV-2005-3.2.4.1				
<b>Acronym</b>	SCENES	<b>Homepage</b>	<a href="http://www.environment.fi/syke/scenes">http://www.environment.fi/syke/scenes</a>		

**Name**            **Water Scenarios for Europe and for Neighbouring States**

#### **Abstract**

The SCENES project will develop and analyse a set of comprehensive scenarios of Europe's freshwater futures up to 2025, covering all of "Greater" Europe reaching to the Caucasus and Ural Mountains, and including the Mediterranean rim countries of north Africa and the near East. These scenarios will provide a reference point for long-term strategic planning of European water resource development, alert policymakers and stakeholders about emerging problems, and allow river basin managers to test regional and local water plans against uncertainties and surprises which are inherently imbedded in a longer term strategic planning process. The scenarios developed by SCENES will be policy-relevant by identifying the requirements of stakeholders and decision makers, and including stakeholders in the scenario-building process. The SCENES project will deliver combined qualitative and quantitative scenarios. The qualitative scenarios (storylines) provide an internally-consistent picture of how water resources in different parts of Europe may develop up to 2025. The quantitative scenarios, produced by state-of-the art models, complement the story-lines by providing numerical information, and by "enriching" the qualitative scenarios by showing trends and dynamics not apparent in the storylines. The qualitative scenario analysis will also focus on water quality, ecological and hydrological aspects, with special regard to the requirements of the WFD. Scenarios will be interactive and adaptive in the sense that they will be developed through a three phase approach. The first phase will be a 'fast track' pan-European scenario exercise using existing information. The second phase will involve regional and pilot area scenario enrichment. The final phase will be the drawing together of results and dissemination of the scenario outputs. SCENES is planned as a 4-year Integrated Project with a total budget of 10.2 million €, of which 7 million € is requested as EC contribution.

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<b>Project-No.</b>	36847	<b>Instrument</b>	SSA	<b>Funding from</b>	
<b>Call</b>	FP6-2005-Global-4	<b>Duration [months]</b>	36	<b>EU-Frameworkprogramme [EUR]</b>	771.000
<b>Activity Code</b>	SUSTDEV-2005-3-SSA				
<b>Acronym</b>	BIOSTRAT	<b>Homepage</b>	<a href="http://www.biostrat.org/">http://www.biostrat.org/</a>		

**Name**            **Developing the EU Biodiversity Research Strategy**

#### **Abstract**

The main objective of BIOSTRAT is to support the further development of a European Biodiversity Research Strategy. This Research Strategy brings together ideas on research priorities in fundamental and applied sciences to address critical gaps in knowledge on the conservation and sustainable use of biodiversity. This Strategy is intended to support the decision-making process regarding biodiversity-related research at both the European scale and in individual EU Member States by linking existing structures. Rather than developing new structures BIOSTRAT will provide specific support to EPBRS (European Platform for Biodiversity Research Strategy), which provides a representative forum for researchers, science and environmental policy makers, and National Biodiversity Platforms. At the same time BIOSTRAT will ensure that other European and international efforts to develop research strategies in different fields of biodiversity research are linked to the development of a European Research Strategy through the EPBRS forum. BIOSTRAT will, therefore, support other international initiatives to link their efforts to the European Biodiversity Research Strategy.

The overall objective will be achieved by:

- Supporting the European Platform for Biodiversity Research Strategy (EPBRS) to develop and continually revise the EU Biodiversity Research Strategy;
- Including the results of existing and ongoing biodiversity research projects in the development of the EU Biodiversity Research Strategy;
- Linking the EU Biodiversity Research Strategy to the national, European and international funding programmes, especially the ERA-Nets related to biodiversity issues;
- Incorporating GEOSS objectives in the EU Biodiversity Research Strategy;
- Linking EU Biodiversity Research Strategy with international initiatives including the multi-stakeholder consultative process of the Paris Conference, the Millennium Ecosystem assessment, the 2010 target, ESRI, GTI, GBIF, CBD, DIVERSITAS.

#### **Partners in Austria**

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<b>Project-No.</b>	506679	<b>Instrument</b>	SSA	<b>Funding from</b>	
<b>Call</b>	FP6-2002-Global-1	<b>Duration [months]</b>	24	<b>EU-Frameworkprogramme [EUR]</b>	350.000
<b>Activity Code</b>	SUSTDEV-2002-3-SSA				
<b>Acronym</b>	GLOCHAMORE	<b>Homepage</b>	<a href="http://www.gloria.ac.at/res/gloria_home/">http://www.gloria.ac.at/res/gloria_home/</a>		

**Name**            **Global Change in Mountain Regions**

### Abstract

Many of the world's mountain ecosystems are moving along trajectories that couple high rates of environmental change with strong economic changes, whose collective effect may alter the ability of mountain regions to provide critical goods and services, both to mountain inhabitants and lowland communities. In order to address the environmental challenges facing the world's mountain regions in the 21st Century, we propose to develop an integrative research strategy for detecting signals of global environmental change in mountain environments, for defining the consequences of these changes for mountain regions as well as lowland areas dependent on mountain resources, and for facilitating the development of sustainable resource management regimes for mountain regions.

Following a kick-off meeting, the details of the research strategy will be formulated through a series of product-oriented workshops dedicated to:

- (1) Long-term Monitoring,
- (2) Integrated Modelling,
- (3) Process Studies, and
- (4) Sustainable Development.

The concepts developed in these Thematic Workshops will be revisited, refined and synthesized during a final Open Science Conference on Global Change in Mountain Regions. By gearing the research strategy toward implementation in mountain Biosphere Reserves, the project will take advantage of the existing UNESCO infrastructure and ongoing Global Change research in these areas. The structure of UNESCO mountain Biosphere Reserves provides ideal natural Global Change laboratories with core protected mountainous areas surrounded by lower-elevation buffer zones that are more strongly influenced by human activities. European scientific participation, capacity building and leadership will be promoted by adapting the research strategy for implementation in UNESCO's mountain Biosphere Reserves in both developed and developing countries. This will be achieved through the active participation of Biosphere Reserve managers in the development of the research strategy.

### Partners in Austria

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<b>Project-No.</b>	505298	<b>Instrument</b>	NoE	<b>Funding from</b>	
<b>Call</b>	FP6-2002-Global-1	<b>Duration [months]</b>	60	<b>EU-Frameworkprogramme [EUR]</b>	10.000.000
<b>Activity Code</b>	SUSTDEV-2002-3.3.1				
<b>Acronym</b>	ALTER-NET	<b>Homepage</b>	<a href="http://www.alter-net.info/">http://www.alter-net.info/</a>		

**Name**            **A Long-term Biodiversity, Ecosystem and Awareness Research Network**

#### **Abstract**

This Network of Excellence (NoE) will create a European long-term inter-disciplinary research facility for research on the complex relationship between ecosystems, biodiversity and society. It will provide research support for policy assessment and development on the conservation and sustainable use of biodiversity in the European Union, and a stable facility for information retrieval and reporting on biodiversity-related issues. It will achieve this by implementing research, management and cultural changes within and between its component organisations, and through the development of integrated research agendas that will focus the research activities of its members on priority policy issues. The result will be a unique inter-disciplinary network linking a variety of stakeholders including research scientists, science communicators, policy makers and the public. In order to ensure durable integration of 25 partners from 17 countries, this NoE will build on 4 existing co-operative programmes that deal with complementary aspects of biodiversity research. These are PEER/CONNECTJLTER, ECSITE and ECNC. A novel approach to integration of ecological and socio-environmental methodologies will be developed, recognising the fact that biodiversity research should be done only in the context of ecosystems and their long-term dynamics. To achieve this, the core research undertaken by the NoE will be structured around a common framework based on the Drivers-Pressures-State-Impact-Response (DPSIR) model. This framework will ensure that research contributes directly to our understanding of the inter-relationship between biodiversity and the services it provides to society, and vice versa. The framework, and the research it supports, will also facilitate the long-term institutional changes that will be necessary to accomplish the ALTER-net objectives for durable integration.

#### **Partners in Austria**

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<b>Project-No.</b>	036866-2	<b>Instrument</b>	IP	<b>Funding from</b>	
<b>Call</b>	FP6-2005-Global-4	<b>Duration [months]</b>	60	<b>EU-Frameworkprogramme [EUR]</b>	6.999.998
<b>Activity Code</b>	SUSTDEV-2005-3.3.1.1				
<b>Acronym</b>	ECOCHANGE	<b>Homepage</b>	<a href="http://www.biochange-lab.eu">http://www.biochange-lab.eu</a>		

**Name**                    **Challenges in assessing and forecasting biodiversity and ecosystem changes in Europe**

### Abstract

A range of advanced modelling approaches has been used so far to assess the impact of global change on biodiversity and ecosystems. These approaches yield projections of the distribution of species, communities and biomes and the functioning of ecosystems. Future goods and services are then assessed from these projections. However, four main limitations remain associated with these approaches:

(1) knowledge and data of past species' distribution is still limited, yet necessary for testing them in the past before projecting them to the future; (2) we miss sound estimates of species' long distance migration rates in order to assess whether species will be able to keep pace with rapid global change; (3) some key assumptions of models, such as niche stability over time and/or space, are not well tested; (4) we need more reliable estimate of uncertainties in model predictions.

Our project specifically proposes to go one step further by:

- (1) integrating different modelling approaches currently in use (niche-based, dynamic, dispersal, etc.), and by developing robust methodologies to estimate uncertainties associated with these projections;
- (2) generating required new data (paleo & migration) by using innovative DNA-based approaches, and global change scenarios;
- (3) testing niche conservatism and temporal evolution of biological communities;
- (4) using the new data in improved and integrated models to make projections more robust and realistic;
- (5) testing these approaches specifically in ecosystems of Fennoscandian and the Alps and by expanding the current projections to all of Europe.

Our consortium encompasses a wide spectrum of skills required to meet these objectives. Our final goal is to provide data, scenarios and associated confidence limits so that policy makers and land managers can use them for anticipating societal problems and for designing sustainable conservation strategies by accounting the most likely global change effects on biodiversity and ecosystems.

### Partners in Austria

#### Organisation

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SERI Nachhaltigkeitsforschungs und -kommunikations GmbH

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Partner

Partner

<b>Project-No.</b>	016322-2	<b>Instrument</b>	NoE	<b>Funding from</b>	
<b>Call</b>	FP6-2004-Global-3	<b>Duration [months]</b>	48	<b>EU-Frameworkprogramme [EUR]</b>	14.300.000
<b>Activity Code</b>	SUSTDEV-2004-3.3.1.2				
<b>Acronym</b>	EVOLTREE	<b>Homepage</b>	<a href="http://www.evoltree.org/">http://www.evoltree.org/</a>		

**Name**                **EVOLution of TREEs as drivers of terrestrial biodiversity**

**Abstract**

EVOLTREE will associate four major disciplines - genomics, genetics, ecology and evolution - for understanding, monitoring and predicting genetic diversity, ecosystems structures, dynamics and processes. This strategy will be applied to three major interacting elements of terrestrial ecosystems: trees, phytophagous insects and mycorrhizal fungi. The functional role of trees as drivers of biodiversity will be deciphered by investigating their adaptive diversity, their structuring role on diversity of associated species and their own evolutionary rate in response to biotic and abiotic environmental changes.

The network will integrate multidisciplinary research to dissect the structure, expression and polymorphism of genes of ecological significance, and contribute to the emergence of "ecosystem genomics". The genomic activities will be conducted within a "Laboratory without walls" where high throughput techniques will be integrated and then applied to a wide range of tree and associated species, starting with model species.

EVOLTREE will setup the necessary experimental infrastructures, information systems and bio informatics resources for common use by the partners. Large data sets will be compiled and made accessible by developing data mining procedures for the analysis of geographic and temporal distribution of genetic diversity. EVOLTREE will spread its knowledge and expertise for the purpose of education, biodiversity monitoring, and conservation.

The network will develop training capacities and facilitate mobility opportunities throughout Europe. A dynamic communication strategy will disseminate its results to the scientific community, end users and public. EVOLTREE will greatly contribute to the national and international efforts for preserving biodiversity, in particular, the resolutions initiated by the Pan-European Biological and Landscape Diversity Strategy initiative and adopted by the Ministerial Conference on Protection of Forests in Europe.

**Partners in Austria**

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<b>Call</b>	FP6-2002-Global-1	<b>Duration [months]</b>	36	<b>EU-Frameworkprogramme [EUR]</b>	1.800.000
<b>Activity Code</b>	SUSTDEV-2002-3.3.1				
<b>Acronym</b>	Intrabiodiv	<b>Homepage</b>	<a href="http://www.aramis-research.ch/d/18819.html">http://www.aramis-research.ch/d/18819.html</a>		

**Name**            **Tracking surrogates for intraspecific biodiversity: towards efficient selection strategies for the conservation of natural genetic resources using comparative mapping and modelling approaches**

**Abstract**

Species richness is the most widely used measure for biodiversity assessment. However, it is intraspecific diversity (genetic polymorphism) that represents the evolutionary and adaptive potential of each species in changing environments. We propose to study possible correlations between intraspecific diversity and species richness or habitat variation.

Our objectives are:

- (1) to find and explain possible relationships among inter- and intraspecific plant diversity and habitat variation;
- (2) to elaborate a modelling approach to predict intraspecific plant diversity, using more efficiently accessible surrogates, on a large scale;
- (3) to establish tools for the design of a network of protected areas to effectively ensure the sustainable management of natural genetic resources.

We will ask the following questions, using the Alps and the Carpathians as model systems:

- (i) Is there congruence between intra- and interspecific biodiversity?
- (ii) Do areas of high endemism, often coinciding with glacial refugia, harbour a great degree of intraspecific diversity?
- (iii) Is habitat variation, characterised by environmental parameters, a good surrogate for intra- and interspecific diversity?

In order to accomplish our aims, we will map the intraspecific diversity by using molecular markers in 30 model species, map the species richness on the same area using mainly existing data on plant distributions, compile environmental data for a map of habitat diversity, compare these maps to find possible correlations among these variables. Based on modelling and simulation techniques, we will develop a web-based public platform for efficiently selecting nature reserve networks which comprise the highest proportion of both intra- and interspecific diversities. Our integrative approach should help to better understand and predict ecosystem patterns on a large scale. The established platform will provide an innovative and efficient technology for observing and managing biodiversity.

**Partners in Austria**

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<b>Call</b>	FP6-2005-Global-4	<b>Duration [months]</b>	30	<b>EU-Frameworkprogramme [EUR]</b>	1.994.285
<b>Activity Code</b>	SUSTDEV-2005-3.3.2.1				
<b>Acronym</b>	RUBICODE	<b>Homepage</b>	<a href="http://www.rubicode.net/">http://www.rubicode.net/</a>		

**Name**            **RATIONALISING BIODIVERSITY CONSERVATION IN DYNAMIC ECOSYSTEMS**

**Abstract**

A key problem in developing policies to stop biodiversity loss is translating threats into a tangible factor for decision-making. RUBICODE will contribute to solving this by examining what biodiversity does for us. Biological units that provide specific services to society will be identified and their services valued, so that they can be compared with more traditional economic valuations. This will give decisionmakers a more rational base and will help the understanding of the need for adequate conservation policies, which are essential to halting biodiversity loss. Nature is fundamentally dynamic, as are the pressures of human activities on biodiversity, yet most conservation strategies still involve a static view of nature. For the realisation of future conservation objectives it is critical that new strategies and policies incorporate these dynamics. RUBICODE will address this by developing integrated dynamic concepts for conservation strategies and examples of their application at multiple scales. RUBICODE will prioritise these strategies for the most significant European terrestrial and freshwater ecosystems by reviewing the impacts of global change on those components of biodiversity essential for maintaining ecosystem services. Important and threatened services will be identified and methods for relating biodiversity in dynamic ecosystems to the provision of these services will be compared and tested. Frameworks for linking biodiversity traits to service provision and for improving and testing indicators will be developed and used to explore management strategies and inform priorities for biodiversity conservation policy. RUBICODE will also identify current gaps in knowledge and propose a roadmap for future research. RUBICODE will involve a large number of external experts, and stakeholders from policy and practice communities, to ensure the relevance of the new concepts, their integration into conservation and to help with their dissemination.

**Partners in Austria**

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<b>Project-No.</b>	506675	<b>Instrument</b>	IP	<b>Funding from</b>	
<b>Call</b>	FP6-2002-Global-1	<b>Duration [months]</b>	60	<b>EU-Frameworkprogramme [EUR]</b>	12.000.000
<b>Activity Code</b>	SUSTDEV-2002-3.3.4				
<b>Acronym</b>	ALARM	<b>Homepage</b>	<a href="http://www.alarmproject.net">http://www.alarmproject.net</a>		

**Name**            **Assessing LArge-scale environmental Risks with tested Methods**

#### **Abstract**

Based on a better understanding of terrestrial and freshwater biodiversity and ecosystem functioning ALARM will develop and test methods and protocols for the assessment of large-scale environmental risks in order to minimise negative direct and indirect human impacts. Research will focus on assessment and forecast of changes in biodiversity and in structure, function, and dynamics of ecosystems. This relates to ecosystem services and includes the relationship between society, economy and biodiversity. In particular, risks arising from climate change, environmental chemicals, biological invasions and pollinator loss in the context of current and future European land use patterns will be assessed. There is an increasing number of case studies on the environmental risks subsequent to each of these impacts. This yields an improved understanding on how these act individually and affect living systems. Whereas the knowledge on how they act in concert is poor and ALARM will be the first research initiative with the critical mass needed to deal with such aspects of combined impacts and their consequences. Risk assessments in ALARM will be hierarchical and examine a range of organisational (genes, species, ecosystems), temporal (seasonal, annual, decadal) and spatial scales (habitat, region, continent) determined by the appropriate resolution of current case studies and databases. Socio-economics as a cross-cutting theme will contribute to the integration of driver-specific risk assessment tools and methods and will develop instruments to communicate risks to biodiversity to end users, and indicate policy options to mitigate such risks. The ALARM consortium combines the expertise of 52 partners from 26 countries (14 EU, 7 NAS, Israel, Switzerland, and 3 INCO states). ALARM encompasses 7 SMEs as full partners with central responsibilities and with a share of 15% of the project resources.

#### **Partners in Austria**

##### **Organisation**

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Partner

Partner

<b>Project-No.</b>	511202	<b>Instrument</b>	STREP	<b>Funding from</b>	
<b>Call</b>	FP6-2003-Global-2	<b>Duration [months]</b>	36	<b>EU-Frameworkprogramme [EUR]</b>	2.400.000
<b>Activity Code</b>	SUSTDEV-2004-3.3.4.3				
<b>Acronym</b>	DAISIE	<b>Homepage</b>	<a href="http://www.europe-aliens.org">http://www.europe-aliens.org</a>		

**Name**            **Delivering Alien Invasive Species Inventories for Europe**

**Abstract**

Effective control of invasive alien species has been hampered by: (a) the lack of monitoring for alien species at frequent enough intervals in regions of concern; (b) a means to report, verify the identifications, and warn of new sightings; and (c) risk assessments that predict the likelihood of a particular species becoming invasive.

Europe has yet to establish a programme with the primary goal of detection, quantifying the possible risk, and warning managers before a respective alien species spreads beyond its point of initial introduction. Such a programme should provide:

- a warning system to alert regional managers;
  - an inventory of alien species against which invasive alien species can be determined;
  - an European information dissemination system;
  - an early detection and monitoring system for alien species.
- In response to these requirements, DAISIE will deliver a European "one-stop-shop" for information on biological invasions in Europe.

It will bring together:

- The European Alien Species Expertise Registry: a directory of researchers and research;
- European Alien Species Database: including all known naturalized alien species in Europe;
- European Invasive Alien Species Information System: descriptions of all naturalized alien species known to be invasive in Europe;
- Species Distribution Maps and Spatial Analysis: Distribution maps of all invasive alien species in Europe known or suspected of having environmental or economic impacts.

DAISIE will be a pivotal instrument in developing a Europe-wide strategy that encompasses both the geographical scale of the problem and unites the study of different taxa in marine, freshwater and terrestrial environments. DAISIE will address the need for a regional network of invasive alien species information.

**Partners in Austria**

**Organisation**

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<b>Project-No.</b>	511237-2	<b>Instrument</b>	IP	<b>Funding from</b>	
<b>Call</b>	FP6-2003-Global-2	<b>Duration [months]</b>	60	<b>EU-Frameworkprogramme [EUR]</b>	8.400.000
<b>Activity Code</b>	SUSTDEV-2004-3.3.4.2				
<b>Acronym</b>	MODELKEY	<b>Homepage</b>	<a href="http://www.modelkey.org/">http://www.modelkey.org/</a>		

**Name**            **Models for Assessing and Forecasting the Impact of Environmental Key Pollutants on Marine and freshwater Ecosystems and Biodiversity**

**Abstract**

MODELKEY comprises a multidisciplinary approach aiming at developing interlinked and verified predictive modelling tools as well as state-of-the-art effect-assessment and analytical methods generally applicable to European freshwater and marine ecosystems:

- (1) to assess, forecast, and mitigate the risks of traditional and recently evolving pollutants on fresh water and marine ecosystems and their biodiversity at a river basin and adjacent marine environment scale;
- (2) to provide early warning strategies on the basis of sub-lethal effects in vitro and in vivo;
- (3) to provide a better understanding of cause-effect-relationships between changes in biodiversity and the ecological status, as addressed by the Water Framework Directive, and the impact of environmental pollution as causative factor;
- (4) to provide methods for state-of-the-art risk assessment and decision support systems for the selection of the most efficient management options to prevent effects on biodiversity and to prioritise contamination sources and contaminated sites;
- (5) to strengthen the scientific knowledge on an European level in the field of impact assessment of environmental pollution on aquatic eco-systems and their biodiversity by extensive training activities and knowledge dissemination to stakeholders and the scientific community.

This goal shall be achieved by combining innovative predictive tools for modelling exposure on a river basin scale including the estuary and the coastal zone, for modelling effects on higher levels of biological organisation with powerful assessment tools for the identification of key modes of action, key toxicants and key parameters determining exposure. The developed tools will be verified in case studies representing European key areas including Mediterranean, Western and Central European river basins. An end-user-directed decision support system will be provided for cost-effective tool selection and appropriate risk and site prioritisation.

**Partners in Austria**

**Organisation**

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<b>Project-No.</b>	037092	<b>Instrument</b>	SSA	<b>Funding from</b>	
<b>Call</b>	FP6-2005-Global-4	<b>Duration [months]</b>	24	<b>EU-Frameworkprogramme [EUR]</b>	707.400
<b>Activity Code</b>	SUSTDEV-2005-3-SSA				
<b>Acronym</b>	SoilCritZone	<b>Homepage</b>	N/A		

**Name**            **Soil sustainability in Europe as deduced from investigation of the Critical Zone**

#### **Abstract**

We propose to organise a series of workshops that will coordinate a fragmented European community that undertakes soil research so that we can fully understand what policy needs to be developed for the sustainability of European soils. Our results will directly feed into a FP7 application and the soil life cycle. Our vision is to develop integrated and quantitative models that describe the linkages between key processes at the scale of the soil profile, and are supported with fundamental understanding of biological, chemical and physical mechanisms. We have the potential to move from ecosystem-specific, empirical approaches to predictive capabilities that are established more firmly from first principles and that can be transferred across a wide range of temporal and spatial scales. This is brought about by the innovative incorporation of existant knowledge with exciting new tools such as cosmogenic isotope profiling, advanced spectroscopy, tomographic imaging, reporter genes, micro electrodes and other sensors to collect field data at high spatial resolution and environmental informatics. Powerful new computational methods such as parallel load balancing of numerical codes can now incorporate fully coupled descriptions of solute transport and detailed reaction mechanisms while accounting for spatial variability in soil properties. These modelling approaches provide a platform to develop a detailed description of how such processes interact with soil biology and other factors. A key requirement for this development is international collaboration to develop critical data sets. This includes comprehensive field studies at highly instrumented sites using agreed state-of-the-art methodologies applied to the full depth of soil profiles. We aim to set up soil observatories to understand the life cycle of soils to underpin soil protection initiatives in Europe.

#### **Partners in Austria**

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<b>Project-No.</b>	505450	<b>Instrument</b>	STREP	<b>Funding from</b>	
<b>Call</b>	FP6-2002-Global-1	<b>Duration [months]</b>	36	<b>EU-Frameworkprogramme [EUR]</b>	1.399.955
<b>Activity Code</b>	SUSTDEV-2002-3.4.1				
<b>Acronym</b>	INDEX	<b>Homepage</b>	<a href="http://www.soil-index.com">http://www.soil-index.com</a>		

**Name**            **Indicators and thresholds for desertification, soil quality, and remediation**

### Abstract

Land degradation (including desertification) is a paramount international problem, and indicators have been developed to follow it. Many are based on (i) plant communities, or (ii) soil loss, or (iii) salinity. They tend to monitor the status quo over large time periods and are more suitable for crisis assessment than for risk prevention. They are also poorly suited for the sensitive monitoring of the success of remediation efforts.

The prime goal of INDEX was therefore to develop indicators, with which the dynamic state of land degradation as well as its remediation can be assessed, and which reflect ecological quality at the soil level rather than at the field and catchment levels. Soil samples were taken from sites across Europe, where a variation of influencing factors ("pressures" according to the DPSIR concept) related to soil deterioration and desertification could be observed either because of a natural variation along a catena or because of different treatments applied during past experiments. Analysis included:

- (1) microbiology including molecular biology and genetic diversity,
- (2) characteristics of the dynamic humus pool and humo-enzymes, and
- (3) soil physics including rheology.

Parameters were selected for their ability to differentiate various pressure levels, for their temporal stability and for their transferability to other sites. Following a stakeholder workshop, where preliminary results were presented, practical aspects were considered for the final parameter selection. After a factor analysis INDEX came up with three indices, which are well suited to indicate differences of soil degradation according to the prevalent type of pressure: 1.: lack of vegetation as the result of desertification processes; 2.: soil erosion; 3.: agricultural practice.

7 indicators, mainly bulk microbial and enzymatic, were found to be suitable for type 1; one, based on particle size, for type 2; and 2 enzymatic ones for type 3. They are sensitive and react quickly to changes in soil management. That makes them also applicable to monitor the effects of soil remediation. As a shortcoming the fact has to be mentioned, that no universal thresholds may be established but measurements have to be made against local reference plots.

With these results INDEX provided a scientifically well founded and technically viable basis for further research, technical measures and remediation action on soils with different degrees of desertification and degradation. Applying the developed indices (esp. type 1) allows to objectively proof if a remediation has been successful and sustainable.

### Partners in Austria

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Partner

<b>Project-No.</b>	18409	<b>Instrument</b>	STREP	<b>Funding from</b>	
<b>Call</b>	FP6-2004-Global-3	<b>Duration [months]</b>	36	<b>EU-Frameworkprogramme [EUR]</b>	1.675.440
<b>Activity Code</b>	SUSTDEV-2004-3.4.1.3				
<b>Acronym</b>	GALAHAD	<b>Homepage</b>	<a href="http://www.galahad-euproject.org/">http://www.galahad-euproject.org/</a>		

**Name**            **Advanced Remote Monitoring Techniques for Glaciers, Avalanches and Landslides Hazard Mitigation**

#### **Abstract**

This project addresses to landslides, avalanches and glaciers-related hazard mitigation, through the development of advanced monitoring techniques and the improvement of forecasting methods and tools. Landslides hazard is increasingly causing substantial damages in mountainous and hilly regions. Its occurrence is frequently related to human activities, which affect the land use (e.g. deforestation, urban development, etc.) and is increasing due to the continental climate changes. Analogously, climate changes are the main causes of the improved occurrence of avalanches as well as the dangerously increased movements of glaciers. The above effects largely impact on critical infrastructure safety and on social and economic activities. Their mitigation is therefore a paramount for protection of citizens and their properties. The enhancement of forecasting methods and tools plays a crucial role in this frame. This is achieved also through the development and the integration of monitoring solutions, able to provide measurements over large areas, at useful accuracies, that are affordable, reliable and operational. Remote monitoring techniques based on ground-based SAR interferometry have been already developed for investigation of landslides over extended areas. However, their reliability for the early warning still face with intrinsic limitations related to operative and interpretation issues. Laser scanning techniques, on the other hand, have found so far very limited applications in detecting landslide movements. Furthermore, the use of such techniques to study avalanches and glaciers is still under investigation. The GALAHAD project aims at developing new and fundamental functionalities of the above remote monitoring techniques, enabling the improvement of reliability, precision and operative usefulness of the measurements and of the forecasting capacity of the interpretation tools. Attention to cost-benefit considerations and to European standardisation policies.

#### **Partners in Austria**

##### **Organisation**

Bundesforschungs- und Ausbildungszentrum für  
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<b>Project-No.</b>	18412	<b>Instrument</b>	STREP	<b>Funding from</b>	
<b>Call</b>	FP6-2004-Global-3	<b>Duration [months]</b>	24	<b>EU-Frameworkprogramme [EUR]</b>	2.424.014
<b>Activity Code</b>	SUSTDEV-2004-3.4.1.3				
<b>Acronym</b>	IRASMOS	<b>Homepage</b>	<a href="http://iramos.slf.ch/">http://iramos.slf.ch/</a>		

**Name**            **Integral Risk Management of Extremely Rapid Mass Movements**

**Abstract**

Rock avalanches, debris flows, and snow avalanches are landslide- and landslide-related processes, subsumed under the term extremely rapid mass movements. These processes pose varying degrees of risk to land use, infrastructure, and personal security in many mountainous regions. Despite increasing efforts to quantify the risk in terms of potential damage or loss of life, most previous studies have achieved partial rather than total risk solutions. IRASMOS addresses these shortcomings by reviewing, evaluating, and augmenting methodological tools for hazard and risk assessment extremely rapid mass movements. Results will be synthesized in strategies proposed within the framework of an Integral Risk Management (IRM) in selected European mountain catchments, targeted to equally address measures pertaining to landslide- and snow avalanche disaster prevention, response, and rehabilitation. The proposed project adopts the character of a comprehensive take-up and feasibility study, recognizing fundamental problems of

- (a) constraints in data quality, availability, and analysis;
- (b) constraints in technical, logistical, and financial support;
- (c) integrating the synchronous or interdependent occurrence of rapid mass movements and their potential off-site and long term effects in a multi-risk context.

Key results include a set of IRM Best Practice Handbook for quantifying and managing total risk from rapid mass movements given possible constraints set by known environmental and administrative boundary conditions. Integrated critical thresholds needed for risk-oriented planning will be quantified and tested. A comprehensive catalogue of triggers and threshold conditions for extremely rapid mass movements, countermeasures, and sensitivity of hazard, vulnerability, and risk indicators will serve as further measures for total risk assessment, allowing customized decision-support for prevention, intervention, and rehabilitation efforts in European mountain ranges.

**Partners in Austria**

<b>Organisation</b>	<b>Contact</b>	<b>E-Mail-Adress</b>	<b>Role</b>
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<b>Project-No.</b>	505448	<b>Instrument</b>	IP	<b>Funding from</b>	
<b>Call</b>	FP6-2002-Global-1	<b>Duration [months]</b>	36	<b>EU-Frameworkprogramme [EUR]</b>	6.430.000
<b>Activity Code</b>	SUSTDEV-2002-3.4.2.a				
<b>Acronym</b>	LESSLOSS	<b>Homepage</b>	<a href="http://www.lessloss.org">http://www.lessloss.org</a>		

**Name**            **Risk Mitigation for Earthquakes and Landslides**

#### **Abstract**

Earthquake and landslide risk is a public safety issue that requires appropriate mitigation measures and means to protect citizens, property, infrastructure and the built cultural heritage. Mitigating this risk requires integrated and coordinated action that embraces a wide range of organisations and disciplines. For this reason, the LESSLOSS IP is formulated by a large number of European Centres of excellence in earthquake and geotechnical engineering integrating in the traditional fields of engineers and earth scientists some expertise of social scientists, economists, urban planners, information technologists.

The LESSLOSS project addresses natural disasters, risk and impact assessment, natural hazard monitoring, mapping and management strategies, improved disaster preparedness and mitigation, development of advanced methods for risk assessment, methods of appraising environmental quality and relevant pre-normative research. In order for the multi-disciplinary S&T ingredients of the project to be tackled in an efficient and productive manner, the research programme has been split into three distinct areas: physical environment, urban areas and infrastructures. For each one of these areas four main types of transversal fields have been identified as fundamental and capable of producing permanent effects on risk mitigation:

- (i) instrumentation and monitoring;
- (ii) methods and technologies to reduce vulnerability;
- (iii) innovative approaches for design/assessment, and
- (iv) disaster scenarios and loss modelling.

Within this general framework, specific objectives will be pursued, such as the development of innovative methods and approaches to design and assessment of structures and earth slopes for both short- and long-term implementation, the development of advanced monitoring techniques and devices, and the development, manufacturing and testing of innovative isolating and dissipating seismic devices.

#### **Partners in Austria**

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<b>Project-No.</b>	18543	<b>Instrument</b>	CA	<b>Funding from</b>	
<b>Call</b>	FP6-2004-Global-3	<b>Duration [months]</b>	18	<b>EU-Frameworkprogramme [EUR]</b>	494.932
<b>Activity Code</b>	SUSTDEV-2004-3.5.1				
<b>Acronym</b>	ATLAS	<b>Homepage</b>	<a href="http://www.atlas-eu.org/">http://www.atlas-eu.org/</a>		

**Name**                    **Action for Training in Land use And Sustainability**

**Abstract**

ATLAS brings together the expertise of the leading European research, education and training institutions in the area of land use and sustainability, combining innovative research efforts and practical experiences, enabling an educational breakthrough required to meet the ambitions of the Sub-priority. The fragmented nature of education and training provision in sustainability impact assessment for land use planning is a major barrier to the management of rapid land use change now occurring in Europe. As a result the Commission wishes to:

(i) take stock of what educational resources exist, (ii) assess their adequacy, (iii) stimulate the development of appropriate strategies and initiatives for the future.

ATLAS will enable the coordination and dissemination of educational practice and the development of future training initiatives for policy and practice in this area throughout Europe. It will result in:

- (1) A baseline description (on-line data base) of the status of educational provision at practitioner's, professional, undergraduate and Master's levels, within Europe;
- (2) A SWOT-analysis of the extent to which this provision meets current needs, with clear recommendations for improvement; and,
- (3) A road-map for training in land use sustainability assessment providing better European organisation of the educational provision leading to appropriate professional qualifications.

ATLAS will enable the Commission to achieve the mentioned requirements, by bringing together the three leading international networks concerned with sustainable land use management in Europe, namely LANDSCAPE EUROPE, ECLAS and Landscape Tomorrow. These networks have differing focuses within this area but together have a complete coverage of the subject. They moreover benefit from direct participation in relevant IP's like SENSOR and SEAMLESS. Improved co-ordination of their efforts on education and training will have great benefits for the effectiveness of the policies currently developed.

**Partners in Austria**

**Organisation**

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<b>Project-No.</b>	036921-2	<b>Instrument</b>	IP	<b>Funding from</b>	
<b>Call</b>	FP6-2005-Global-4	<b>Duration [months]</b>	48	<b>EU-Frameworkprogramme [EUR]</b>	7.000.000
<b>Activity Code</b>	SUSTDEV-2005-3.5.1.1				
<b>Acronym</b>	PLUREL	<b>Homepage</b>	<a href="http://www.plurel.net">http://www.plurel.net</a>		

**Name**            **Peri-urban Land Use Relationships – Strategies and Sustainability Assessment Tools for urban-rural linkages**

**Abstract**

PLUREL will develop new outward looking strategies for sustainable urban, peri-urban and rural land use relationships. New planning and forecasting tools will support the analysis of urbanisation trends in a range of different economic, social and environmental contexts. The aims are to identify optimal strategies to support these interactions on a mutually beneficial basis, minimise their negative impacts, and improve the quality of life of the urban population. The analysis will consider the impact of forecasted and scenarios based demographic changes and migration patterns and examine social, economic and ecological relations, linkages and impacts. A key focus will be the innovative integration of both quantitative and qualitative aspects of the interactions between expanding urban areas, and the peri-urban and rural land uses. The strategies and tools will be validated against representative case studies, be robust and usable by policy-makers and provide the greater operational understanding essential for planning and optimizing these complex interactions between cities and their peri-urban and rural areas to improve both the physical living environment and the overall quality of life of their citizens. The benefits and costs of different strategies for urban development will be evaluated and this will enable key stakeholders to take better informed decisions. Stakeholder involvement throughout the research process and the case studies will, as well as training courses, contribute to the practical adoption and dissemination of the research products. PLUREL will produce new and improved integrated planning and assessment tools including problem-oriented handbooks, land use impact response functions and software, and GEO-compatible databases. These new decision-support tools will help policy makers at the EU, national, regional and local levels with the ex-ante assessment of the impacts of their policy options in physical, economic and social terms.

**Partners in Austria**

**Organisation**

International Institute for Applied Systems Analysis  
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<b>Project-No.</b>	3989	<b>Instrument</b>	SSA	<b>Funding from</b>	
<b>Call</b>	FP6-2003-Global-2	<b>Duration [months]</b>	18	<b>EU-Frameworkprogramme [EUR]</b>	400.171
<b>Activity Code</b>	SUSTDEV-2004-3-SSA.2.4				
<b>Acronym</b>	RAISE	<b>Homepage</b>	<a href="http://www.raise-eu.org/">http://www.raise-eu.org/</a>		

**Name**            **Raising citizens and stakeholders awareness, acceptance and use of new regional and urban sustainability approaches in Europe**

### Abstract

The project RAISE aimed at raising the awareness and testing the acceptance and usability of results achieved by the recently closed or ongoing EU research projects on urban sustainability.

This was done by arranging a citizens' conference process that involved 26 citizens, one from each EU Member State plus Romania, selected from those who submitted their application to participate using the questionnaire posted on the web-site. The participants represented the "average citizens" from the different countries of Europe. They were asked to formulate their view on the acceptance and use of selected urban sustainability approaches, technologies and solutions coming from EU research findings in a sequence of three preparatory meetings, whose results were presented in a final conference in Brussels, involving also stakeholder representatives and politicians.

The project was carried out by 5 partners: ISIS (Italy), ICCR (Austria), Ramboll Management Brussels (Belgium), IMPACT Consulting (Romania) and CIMPAN (Poland).

### Partners in Austria

#### Organisation

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#### Role

Partner

<b>Project-No.</b>	003874-2	<b>Instrument</b>	IP	<b>Funding from</b>	
<b>Call</b>	FP6-2003-Global-2	<b>Duration [months]</b>	48	<b>EU-Frameworkprogramme [EUR]</b>	9.299.437
<b>Activity Code</b>	SUSTDEV-2004-3.5.1.1.a				
<b>Acronym</b>	SENSOR	<b>Homepage</b>	<a href="http://www.ip-sensor.org/">http://www.ip-sensor.org/</a>		

**Name**            **Sustainability Impact Assessment: Tools for Environmental, Social and Economic Effects of Multifunctional Land Use in European Regions**

**Abstract**

Sustainability of land use in European regions is a central point of policy and management decisions at different levels of governance. Implementation of European policies designed to promote and protect multifunctional land use requires the urgent development of robust tools for the assessment of different scenarios' impacts on the environmental and socio-economic sustainability. The technical objective of SENSOR is to build, validate and implement sustainability impact assessment tools (SIAT), including databases and spatial reference frameworks for the analysis of land and human resources in the context of agricultural, regional and environmental policies. The scientific challenge is to establish relationships between different environmental and socio-economic processes as characterised by indicators considered to be quantitative measures of sustainability. Scenario techniques will be used within an integrated modelling framework, reflecting various aspects of multifunctionality and their interactions. The focus will be on European sensitive regions, particularly those in accession countries, since accession poses significant questions for policy makers regarding the socio-economic and environmental effect of existing and proposed land use policies. SIAT will utilise the statistical and spatial data continuously collected by European and regional agencies. SENSOR will deliver novel solutions for integrated modelling, spatial and temporal scaling and aggregation of data, selection of indicators, database management, analysis and prediction of trends, education and implementation. SIAT will be made available to decision makers at the European and regional level, providing user-friendly interfaces and scientifically sound procedures for the assessment of environmental and monetary responses of policy options. Cost-benefit and cost-effectiveness analysis of policy implementation will be an integral part of the SIAT's functions.

**Partners in Austria**

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<b>Project-No.</b>	3944	<b>Instrument</b>	SSA	<b>Funding from</b>	
<b>Call</b>	FP6-2003-Global-2	<b>Duration [months]</b>	30	<b>EU-Frameworkprogramme [EUR]</b>	230.279
<b>Activity Code</b>	SUSTDEV-2004-3-SSA.2.5				
<b>Acronym</b>	AGRIDEMA	<b>Homepage</b>	<a href="http://www.agridema.org/opencms/opencms/home.html">http://www.agridema.org/opencms/opencms/home.html</a>		

**Name**            **Introducing tools for agricultural decision-making under climate change conditions by connecting users and tool-providers**

### Abstract

New policies must be adopted under climate change conditions to secure sustainability of agricultural crop production. Despite of the recognised relevance of the European-provided modelling tools for climate risk assessments, they have been not noticeable applied for supporting agricultural decision-making within Europe, neither worldwide. On the other hand, the European research funds concerning agricultural climate-change impact assessments have been addressed mainly to theoretical issues rather than to research-results applications; although climate change and particularly its linked climate variability could lead to significant damages and yield losses in the next decades. Researchers and farmer advisers from local agricultural-services can effectively realize which practical decisions should be taken for mitigating the possible climate risks on their local conditions. However, those local institutions are not usually connected to high-level researches neither to EU funding procedures and they need support before being able to use the European-provided modelling tools. According to the above, present Specific Support Action (SSA) is addressed to establish connections and feedback mechanisms between high level research centres of Europe; where modelling tools have been developed and tested ("developers"); with their potential users from local agricultural decision-making ("users"). It will be done through initial contacts, short courses and pilot primary assessments. The local researchers to be initially supported by the SSA should be those located in the EU and EU-associated countries where global-change and weather extreme-events could bring the most negative consequences, i.e. those from Southern, Central and Eastern Europe, as well as the non-European Mediterranean countries. The SSA should establish a continuous acting information network, comprising several European "developers" and "users".

### Partners in Austria

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<b>Project-No.</b>	518128-2	<b>Instrument</b>	IP	<b>Funding from</b>	
<b>Call</b>	FP6-2004-Global-3	<b>Duration [months]</b>	48	<b>EU-Frameworkprogramme [EUR]</b>	12.944.060
<b>Activity Code</b>	SUSTDEV-2004-3.5.2.1.1				
<b>Acronym</b>	EFORWOOD	<b>Homepage</b>	<a href="http://www.eforwood.com/">http://www.eforwood.com/</a>		

**Name**            **Tools for Sustainability Impact Assessment of the Forestry-Wood Chain (EFORWOOD)**

#### **Abstract**

The objective of EFORWOOD is to develop a quantitative decision support tool for Sustainability Impact Assessment of the European Forestry-Wood Chain (FWC) and subsets thereof (e.g. regional), covering forestry, industrial manufacturing, and consumption and recycling. The objective will be achieved by:

- a) defining economic, environmental and social sustainability indicators;
- b) developing a tool for Sustainability Impact Assessment by integrating a set of models;
- c) supplying the tool with real data, aggregated as needed and appropriate;
- d) testing the tool in a stepwise procedure allowing adjustments to be made according to the experiences gained;
- e) applying the tool to assess the sustainability of the present European FWC (and subsets thereof) as well the impacts of potential major changes based on scenarios;
- f) making the adapted versions of the tool available to stakeholder groupings (industrial, political and others).

The multi-functionality of the FWC is taken into account by using indicators to assess the sustainability of production processes and by including in the analysis the various products and services of the FWC. Wide stakeholder consultations will be used throughout the process to reach the objective. EFORWOOD will contribute to EU policies connected to the FWC, especially to the Sustainable Development Strategy. It will provide policy-makers, forest owners, the related industries and other stakeholders with a tool to strengthen the forest-based sector's contribution towards a more sustainable Europe, thereby also improving its competitiveness. To achieve this, EFORWOOD gathers a consortium of highest-class experts, including the most representative forest-based sector confederations. EFORWOOD addresses with a high degree of relevance the objectives set out in the 3rd call for proposals addressing Thematic Sub-priority 1.1.6.3 "Global Change and Ecosystems", topic V.2.1. "Forestry / wood chain for Sustainable Development".

#### **Partners in Austria**

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<b>Project-No.</b>	37063	<b>Instrument</b>	STREP	<b>Funding from</b>	
<b>Call</b>	FP6-2005-Global-4	<b>Duration [months]</b>	36	<b>EU-Frameworkprogramme [EUR]</b>	2.499.583
<b>Activity Code</b>	SUSTDEV-2005-3.6.1.4				
<b>Acronym</b>	GEO-BENE	<b>Homepage</b>	<a href="http://www.geo-bene.eu/">http://www.geo-bene.eu/</a>		

**Name**            **GLOBAL EARTH ORGANISATION - BENEFIT ESTIMATION: NOW, NEXT AND EMERGING**

**Abstract**

Global Earth Observations are instrumental to attain sustainable development goals and are major drivers of how the society-technology environment system is managed. An integrated economic, social and environmental assessment of the nine benefit areas of GEO has not yet been carried out. These benefit areas are: Disaster, Health, Energy, Climate, Water, Weather, Ecosystems, Agriculture and Biodiversity. In order to support the international negotiation processes connected to these areas and for the development of good policies the "Global Earth Observation - Benefit Estimation: Now, Next and Emerging" (GEO-BENE) project's objective is to develop methodologies and analytical tools to assess societal benefits of GEO. The assessment will be carried out using quantitative and qualitative information. Benefit assessment tools are centered around spatially explicit information applying deterministic and stochastic approaches. The various model structures will be applied to global data sets assessing benefit functions using harmonized socio-economic and technology scenarios. Concise policy conclusions from the modeling exercise will aim at supporting the implementation of international agreements. In the proposal we advocate a spatially explicit approach for benefit estimation motivated by the fact that activities underlying the nine benefit areas of GEO are by their very nature spatial entities and aggregate non-spatial treatment could, according to our experience, lead to serious biases in the assessment. We propose a simple and easily tractable static and deterministic approach for the aggregate benefit calculation and also more comprehensive, dynamic, and uncertainty augmented assessment. We believe that such a multi-dimensional approach is necessary since the underlying processes of the benefits areas are complex and consistency across a variety of decision rules should guarantee robustness of the final aggregate benefit estimates.

**Partners in Austria**

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<b>Project-No.</b>	003956-2	<b>Instrument</b>	IP	<b>Funding from</b>	
<b>Call</b>	FP6-2003-Global-2	<b>Duration [months]</b>	48	<b>EU-Frameworkprogramme [EUR]</b>	10.000.000
<b>Activity Code</b>	SUSTDEV-2004-3.7.1.1.a				
<b>Acronym</b>	NOMIRACLE	<b>Homepage</b>	<a href="http://nomiracle.jrc.it/default.aspx">http://nomiracle.jrc.it/default.aspx</a>		

**Name**            **Novel Methods for Integrated Risk Assessment of Cumulative Stressors in Europe**

**Abstract**

To support current and future European strategies, in particular for environment and health, there is an urgent need for development of methods for assessing the cumulative risks from combined exposures to multiple stressors including from complex mixtures of chemical, physical, and biological agents. This presented IP will help support the development and improvement of a coherent series of methodologies that will be underpinned by mechanistic understanding, while integrating the risk analysis approaches of environmental and human health. The project will deliver understanding and tools for sound risk assessment, developing a research framework for the description and interpretation of combined stressor effects that leads to the identification of biomarkers and other indicators of cumulative impacts. The IP will help increase knowledge on the transfer of pollutants between different environmental compartments, including how these processes are influenced by natural stressors such as climate, and on the impact of cumulative stressors, including chemical mixtures. This will facilitate the link information concerning the condition of air, water, soil and the built environment with human and ecosystem health monitoring data. By developing and using improved assessment tools and novel models, the project will quantify and aim at reducing uncertainty in current risk assessment and screening methodologies, e.g. by improving the scientific basis for setting safety factors. The new methods will take into account geographical, ecological, social and cultural differences across Europe. The IP consortium is highly competent in the relevant areas, counting leading scientists within human toxicology and epidemiology, aquatic and terrestrial eco-toxicology, environmental chemistry/biochemistry, toxicogenomics, physics, mathematical modelling, geographic informatics, and socio-economic science.

**Partners in Austria**

<b>Organisation</b>	<b>Contact</b>	<b>E-Mail-Adress</b>	<b>Role</b>
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<b>Project-No.</b>	36957	<b>Instrument</b>	STREP	<b>Funding from</b>	
<b>Call</b>	FP6-2005-Global-4	<b>Duration [months]</b>	36	<b>EU-Frameworkprogramme [EUR]</b>	1.378.812
<b>Activity Code</b>	SUSTDEV-2005-3.8.1.2				
<b>Acronym</b>	AIRTV	<b>Homepage</b>	<a href="http://www.airtv.eu">http://www.airtv.eu</a>		

**Name**            **Testing network for verification of air emissions abatement technologies**

**Abstract**

The European Commission adopted an ambitious Action Plan (COM (2004) 38) to improve the development and wider use of environmental technologies. Many new environmental technologies have great potential to improve the environment and, at the same time, boost the competitiveness of companies. The main objectives of the Action Plan are:

- (1) To remove the obstacles so as to tap the full potential of environmental technologies for protecting the environment while contributing to competitiveness and economic growth;
- (2) To ensure that over the coming years the EU takes a leading role in developing and applying environmental technologies;
- (3) To mobilise all stakeholders in support of these objectives.

One of the actions included in this Action Plan is the improvement of testing, performance verification and standardisation related to environmental technologies, with the aim of providing a European instrument for verifying through commonly recognised and transparent protocols the performance characteristics of environmentally sound technologies (EsT). The results of the verification should be reported to decision makers, regulators, buyers and to the general public through appropriate information means, with the aim to accelerate the penetration of new technologies in the market. The Action Plan proposes the creation of networks of specialised centres to carry out the testing and assessment of clean technologies based around families of technology sectors. AIRTV will become a powerful tool for the efficient implementation of this Action Plan. The overall, strategic objective of AIRTV is to speed up the implementation of EsT in Europe by establishing a system of their verification, proving the benefits of EsT's use for environment and human life conditions AIRTV will provide reliable and independent performance data for EsT in the field of air emissions reduction technologies.

**Partners in Austria**

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<b>Project-No.</b>	037033-2	<b>Instrument</b>	IP	<b>Funding from</b>	
<b>Call</b>	FP6-2005-Global-4	<b>Duration [months]</b>	48	<b>EU-Frameworkprogramme [EUR]</b>	5.000.000
<b>Activity Code</b>	SUSTDEV-2005-3.8.1.1				
<b>Acronym</b>	EXIOPOL	<b>Homepage</b>	<a href="http://www.seri.at/EXIOPOL/">http://www.seri.at/EXIOPOL/</a>		

**Name**            **A New Environmental Accounting Framework Using Externality Data and Input-Output Tools for Policy Analysis**

**Abstract**

The EXIOPOL Integrated Project has three principal objectives:

- (1) To synthesize and develop comprehensive estimates of the external costs for Europe of a broad set of economic activities (far beyond the existing ones for energy and transport);
- (2) To set up a detailed environmentally extended (EE) Input-Output (I-O) framework, with links to other socio-economic models, in which as many of these estimates as possible are included. Such an EE I-O table for the EU 25 does not exist. This will allow for the estimation of environmental impacts and external costs of different economic sector activities, final consumption activities and resource consumption for countries in the EU;
- (3) To apply the results of the external cost estimates and EE I-O analysis for the analysis of policy questions of importance, as well as to evaluate the value and impact of past research on external costs on policy-making in the EU.

The IP creates hence a novel toolbox supportive to a great variety of EU policy fields, such as Integrated Product Policy, the Strategy on Natural Resources, the Environmental Technologies Action Plan (ETAP), Sustainable Consumption and Production, the relation between sustainability and the Lisbon strategy, and impact assessment of sustainability policies in general. The objectives reflect those of the Global Change and Ecosystem Work Programme which emphasises the importance of a quantitative analysis of external effects, and the elaboration of new accounting frameworks for sustainability assessment at the micro, sectoral and macro levels. As the Work Programme requires, the structure and outputs of EXIOPOL are very much geared to provide a basis for these new policy analytical tools as well as to strengthen the existing tools of cost benefit and cost effectiveness analysis. This strengthening will come from better quantitative information on the external costs associated with pollutants that have hitherto not been analyzed in much detail.

**Partners in Austria**

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<b>Project-No.</b>	004059-2	<b>Instrument</b>	IP	<b>Funding from</b>	
<b>Call</b>	FP6-2003-Global-2	<b>Duration [months]</b>	48	<b>EU-Frameworkprogramme [EUR]</b>	5.300.000
<b>Activity Code</b>	SUSTDEV-2004-3.8.2.c				
<b>Acronym</b>	MATISSE	<b>Homepage</b>	<a href="http://www.matisse-project.net">http://www.matisse-project.net</a>		

**Name**            **Methods and Tools for Integrated Sustainability Assessment (MATISSE)**

#### **Abstract**

The objective of MATISSE is to achieve a step-wise advance in the science and application of Integrated Sustainability Assessment (ISA) of EU policies. In order to reach this objective the core activity of the MATISSE project is to improve the tool kit available for conducting Integrated Sustainability Assessments, resulting in four main project activities:

(1) A common conceptual framework for ISA development, implementation and evaluation will be developed. This will be related to the assessment of the current status of ISA and its pattern of use in relation to different domains and contexts.

(2) MATISSE will deliver a future tool portfolio for ISA. It will improve and interlink existing tools and methods for ISA with the focus on quantitative tools. In addition, new methods and tools will be developed that capture the multi-domain, multi-level and multi-actor complexity of ISA.

(3) In four case studies the improved and new ISA tools will be applied and tested. The case studies are designed to cover the broad spectrum of domains and contexts of ISA in the EU. The themes are: i) agriculture, forestry and land-use, ii) resource use, waste and dematerialisation, iii) water, and, iv) sustainable environmental technology development.

(4) The involvement and engagement of stakeholders and policy makers will be secured throughout all activities of the project. This covers crosscutting capacity-building, communications and outreach tasks. To this purpose, external guidelines for ISA will be developed that will support the future use and application of tools and methods for ISA across a wide range of contexts.

The resulting improved tools portfolio and ISA Guidelines will form the primary deliverables of the project. The major focus will be on ISA-modelling tools in relation to ISA-participatory methods, which will be made suitable for use by the European Commission and other actors that seek to apply ISA through a comprehensive dissemination programme.

#### **Partners in Austria**

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##### **Role**

Partner

Partner

<b>Project-No.</b>	4074	<b>Instrument</b>	STREP	<b>Funding from</b>	
<b>Call</b>	FP6-2003-Global-2	<b>Duration [months]</b>	30	<b>EU-Frameworkprogramme [EUR]</b>	1.900.000
<b>Activity Code</b>	SUSTDEV-2004-3.8.2.e				
<b>Acronym</b>	NATURNET-REDIME	<b>Homepage</b>	<a href="http://www.naturnet.org/">http://www.naturnet.org/</a>		

**Name**                    **New Education and Decision Support Model for Active Behaviour in Sustainable Development Based on Innovative Web Services and Qualitative Reasoning**

### Abstract

NaturNet-Redime will develop educational programmes towards implementing the European Union's Strategy for Sustainable Development (SSD). The prototype technology produced will demonstrate the utility of our approach for developing educational programmes that will increase understanding of the various factors that affect sustainable development. Example content will stress ecological, environmental, economic, and cultural factors. As recognized by the SSD, this increased understanding will allow more informed and equitable decisions to be made by increasing public involvement in the decision-making process. NaturNet-Redime is the result of the merger of two projects that each sought to use web and computer technologies to disseminate knowledge about sustainability. The NaturNet aspects of the project focus on building an interoperable Internet architecture, where users can access and visualise much of the data on sustainable development that currently exists in scattered, non-integrated form throughout the world. Mobile Internet technologies will allow users to access location-specific information in the terrain, wherever they are. Redime aspects of the project focus on learning through modelling. People learn about system behaviour best when they can construct mental models of how the system works. We will use this approach to develop tools for the public to learn about sustainable development. This will be made possible by enhancing Qualitative Reasoning (QR) modelling tools to make them easy and interesting to use. A team of sustainability experts will organise and explicate cause-effect processes into the new QR workbench, allowing this knowledge to be transferred and re-used. Thus, users will assemble these pieces of knowledge like building blocks to create and run simulations. In contrast to passive learning by traditional lecture or reading formats, a deeper understanding of cause and effect will be facilitated.

### Partners in Austria

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<b>Project-No.</b>	514966	<b>Instrument</b>	SSA	<b>Funding from</b>	
<b>Call</b>	FP6-2003-Global-2	<b>Duration [months]</b>	24	<b>EU-Frameworkprogramme [EUR]</b>	144.484
<b>Activity Code</b>	SUSTDEV-2004-3-SSA.2.2				
<b>Acronym</b>	ECONETUS	<b>Homepage</b>	<a href="http://www.econetus.polsl.pl/">http://www.econetus.polsl.pl/</a>		

**Name**                **Support for networks creation in the field of Global Change and ECOsystems - from idea through proposal submission and project managing till completion and successful audit**

### Abstract

ECONetus project aims to provide support for networks creation in the field of Global Change and Ecosystems in Europe and to establish strong cooperation between participants from Member and Associate Candidate Countries. This project's consortium consists of partners from: Poland, Lithuania (representatives of ACCs), the United Kingdom and Austria (representatives of MCs). In this project Poland and Lithuania will act as a bridge between ACCs and MCs while promotion of this project in MCs will be assured by other partners. Good relations with Contact Points from other ACC countries will ensure efficient project results dissemination. The project will actively contribute to the implementation, stimulation, encouragement and facilitation of the participation mainly in the research activities of this priority thematic area among potential RTD projects' participants (from research and industrial units). It also aims to assist all established consortia during a whole "project's life" - from idea through proposal submission and project managing till completion and successful audit. At the beginning of the project, participants from MCs and ACCs will have a possibility to get to know one another during brokerage meetings and create consortia (working groups), which will allow opening research groups from MCs to cooperate with participants from ACCs. Later on, established international working groups will have a chance to participate in workshops organized by ECONetus and then create and consult their proposals with its Scientific Advisory Group and Assistance Group. It is expected that there will be RTD projects submitted by consortia established and assisted by ECONetus in 6th FP and also in 7th FP. Another aim of the project is to better educate the Contact Points' experts from all ACCs in important and needed expertise of negotiating and managing RTD projects. This will consequently lead to better assistance for researchers and contribute to the creation of ERA.

### Partners in Austria

<b>Organisation</b>	<b>Contact</b>	<b>E-Mail-Adress</b>	<b>Role</b>
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<b>Project-No.</b>	511088	<b>Instrument</b>	SSA	<b>Funding from</b>	
<b>Call</b>	FP6-2003-Global-2	<b>Duration [months]</b>	18	<b>EU-Frameworkprogramme [EUR]</b>	499.999
<b>Activity Code</b>	SUSTDEV-2004-3-SSA.2.2				
<b>Acronym</b>	ERA-ENV	<b>Homepage</b>	N/A		

**Name**                    **Integration of Associated Candidate Countries and New EU Member States in European Research Area by Environmental approaches**

### Abstract

The aim of this Specific Support Action (SSA) is to enhance the participation of research organizations and SMEs from new Members States and Candidate Countries in FP6 and 6.3. Thematic Priority.

The proposed activities will:

- actively promote the research competencies on environment in ACC (at least 200 research organisations from ACC will be promoted);
- train research and SMEs representative on issues related to FP6 and "Global Changes and Ecosystems" (11 training sessions organized and up to 240 researchers trained);
- allow to promote FP6/Global Changes and Ecosystems to research community and SMEs (2,750 brochures, 5,000 leaflets, 2,750 CDs, one web page, monthly E- newsletters, one European Conference);
- allow to support researchers/SMEs in proposal elaboration and submission (up to 20 proposals with ACC partners);
- allow to establish partnerships between organizations from Member States and ACC (one big Brokerage Event will be organized in Romania).

ERA-ENV mobilises the skills and competencies of relevant organisations from 7 European Countries, of which 2 are Member States (Austria and Germany), 2 are new Member States (Hungary and Slovakia) and 3 are Candidates Countries (Romania, Bulgaria and Turkey).

### Partners in Austria

#### Organisation

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#### Role

Partner

<b>Project-No.</b>	037116	<b>Instrument</b>	SSA	<b>Funding from</b>	
<b>Call</b>	FP6-2005-Global-4	<b>Duration [months]</b>	24	<b>EU-Frameworkprogramme [EUR]</b>	348.749
<b>Activity Code</b>	SUSTDEV-2005-3-SSA				
<b>Acronym</b>	INT-ER-LINK	<b>Homepage</b>	N/A		

**Name Promoting International Cooperation for Environmental Research Through Dissemination and Networking Activities**

**Abstract**

The major objectives of this Specific Support Action are to:

(1) promote the role played by the Framework Programme in enabling International Cooperation on Global Change and Ecosystems research;  
 (2) and to facilitate the uptake of the results of the research being carried out. This will be done by using a combined approach of awareness-raising and networking activities.

The project will focus in particular on two groups of Third Countries: Africa and the Newly Independent States since enhanced cooperation with these third countries would have a high impact of on the implementation of both the Research and Sustainable Development policies of the European Union. In order to have direct access to the environmental scientific community a consortium has been composed of National Contact Points, International Organisations and National Information Points, spanning across Europe, Africa and the Newly Independent States.

The awareness-raising activities will involve the dissemination of information on:

- the projects funded by the 6th Framework Programme in priority 6.3 "Global Change and Ecosystems" and which include partners from Third Countries;
- R&D players and networks in Europe and Third Countries.

The consortium will produce dedicated communication tools for this purpose, adapting them to the different target groups identified and disseminating them in the European Union, Candidate Countries, Associated Countries and Third Countries.

The networking activities aim to build interfaces/linkages between

- the European scientific community and the Third Country scientific community;
- the scientific and the development cooperation communities;
- the network of National Contact Points to other networks in Third countries who are active in the promotion of the Framework Programme or could potentially play this role.

The dissemination and networking activities will pave the way to an enhanced cooperation with Third Countries in FP7.

**Partners in Austria**

**Organisation**

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**Role**

Coordinator

<b>Project-No.</b>	9603	<b>Instrument</b>	SSA	<b>Funding from</b>	
<b>Call</b>	FP6-2003-Global-2	<b>Duration [months]</b>	24	<b>EU-Frameworkprogramme [EUR]</b>	300.000
<b>Activity Code</b>	SUSTDEV-2004-3-SSA.2.2				
<b>Acronym</b>	SAFE	<b>Homepage</b>	N/A		

**Name**            **SME Action For the Environment in Candidate Countries**

#### **Abstract**

SAFE has been designed to stimulate, encourage and facilitate the participation of organisations from the Associated Candidate Countries (ACC) in the activities of thematic sub-priority "Global Change and Ecosystems". This will be developed through networking EU multipliers in the candidate countries as well as NCPs. These multipliers will be coached to extend the services of the NCPs for Environmentally related calls in the respective ACCs. Each EU partner will establish a liaison with one or more local candidate partners, in one or two of the participating ACCs, offering continued bilateral support, and collaboration with the local NCPs. The Environmental multipliers from the ACCs will attend workshops, exposing them to FP6 and its instruments and to the Sustainable development Priority Work programme. Each couple, formed of a EU partner and one or more multipliers, will thereafter be engaged in a bilateral action, in which the former will transfer knowledge, best practice and hands-on experience to the latter. The Environmental multipliers selected will be guided in the requirements of FP6, so as to facilitate their assistance to local Environmentally motivated enterprises - and to entities wishing to adopt Sustainable measures - to participate and respond to Calls for Proposals within the sustainable development Priority.

The Consortium will assist the ACC multipliers (bilaterally and jointly) by:

- (1) Organising awareness-building campaigns (aimed at identifying potential environmentally conscious developments or entities that could benefit from FP6 projects);
- (2) Organising awareness building and dissemination Seminars and Workshops;
- (3) Joining a network of Environmentally responsible-multipliers created in the other ACCs and NIS;
- (4) Assisting ACC entities to build or join STREP, IP or NoE proposals, together with EU partners.

#### **Partners in Austria**

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Partner

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<b>Call</b>	FP6-2003-Global-2	<b>Duration [months]</b>	24	<b>EU-Frameworkprogramme [EUR]</b>	300.000
<b>Activity Code</b>	SUSTDEV-2004-3-SSA.2.2				
<b>Acronym</b>	SME ENVIRONMENT	<b>Homepage</b>	<a href="http://www.sme-environment.org/">http://www.sme-environment.org/</a>		

**Name**                **SUPPORTING THE PARTICIPATION OF ENVIRONMENTAL SMES FROM ASSOCIATED CANDIDATE COUNTRIES IN THE 6TH FRAMEWORK PROGRAMME**

### Abstract

The overall objective of the project is to establish an innovative and flexible training tool for SMEs in the environment and energy sector from Associated Candidate Countries (ACCs) in order to facilitate their participation in the 6th framework programme (FP6). Within the framework of the project the true needs of environmental SMEs from ACCs will be investigated, strategies for their involvement will be developed and a web-based service will be created, providing all services necessary for their active participation in FP6 projects. Services include robust e-training solutions that will provide hands-on assistance to managers of environmental SMEs from the proposal writing phase, through the contracting process till the management of funded projects. The services will comprise of an e-learning course on FP6 proposal writing, e-training services for the selected candidates (financial, project management, legal and IPR advise) and platform for the discussion of partners and project coordinators. A robust dissemination and marketing strategy will be performed during the project in order to ensure full publicity for the services, not only within the environmental SME sector, but also among other institutions who are potential proposers of FP6 projects. Here all relevant EC innovation and business networks will be involved. The proposed project may be seen as highly complementary to the ongoing efforts by the European Commission and the relevant supporting networks and centres. The proposed e-training service on environmental project proposal development will act as a catalyst, converting the available FP6 information into practice (i.e. high-quality project proposals), which in-turn help to maximise the impact of the existing EC services.

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Partner

## **SSP: Scientific Support to Policies (Projects with Austrian participation)**

### **1. *Sustainable management of Europe's natural resources***

**1.2 Tools and assessment methods for sustainable agriculture and forestry management**

**1.5 Environmental assessment (soil, water, air, noise, including the effects of chemical substances)**

**1.6 Assessment of environmental technologies for support of policy decisions, in particular concerning effective but low-cost technologies in the context of fulfilling environmental legislation**

### **3. *Underpinning the economic potential and cohesion of a larger and more integrated European Union***

**3.4 Forecasting and developing innovative policies for sustainability in the medium and long term**

<b>Project-No.</b>	6447	<b>Instrument</b>	STREP	<b>Funding from</b>	
<b>Call</b>	FP6-2003-SSP-3	<b>Duration [months]</b>	36	<b>EU-Frameworkprogramme [EUR]</b>	1.778.889
<b>Activity Code</b>	POLICIES-1.2 Task 5				
<b>Acronym</b>	GoFOR	<b>Homepage</b>	<a href="http://www.boku.ac.at/GoFOR/">http://www.boku.ac.at/GoFOR/</a>		

**Name**            **New Modes of Governance for Sustainable Forestry in Europe**

### Abstract

The context of forest politics is changing. More than before, governmental actors lack the powers to deliver the required or requested policy results on their own. If decisions cannot or shall not be imposed by hierarchy, and coordination cannot be left to market mechanisms, other means of coordination are needed. Under the term "new modes of governance" policy makers in Europe are striving for less intrusive means of achieving policy goals. The idea of governance is not new in the forest sector. But so far, neither comparative analyses nor systematic evaluations of the effectiveness of these practices have been carried out. The research project "New Modes of Governance for Sustainable Forestry in Europe – GoFOR" has striven to critically evaluate new modes of governance as a basis for policy relevant conclusions and recommendations in order to safeguard sustainable forest management in Europe.

Based on theoretical arguments and empirical evidence, the project has elaborated a set of criteria that operationalise the concept of "new modes of governance" and its constituting elements (i.e., public participation, inter-sectoral and multilevel co-ordination, adaptive and iterative policy-making and the use of democratic and accountable expertise).

GoFOR has evaluated new practices of governance by

(i) analyzing programmatic policy statements to learn about the role that governance and its elements play in the repertoire of different policy actors,  
(ii) investigating current and evolving practices of governance to find out whether they are applied in a substantive way or whether they are merely symbolic rhetoric,

(iii) exploring the broader political context to see how far effective governance is contingent on environmental, social, political, and economic factors,

(iv) carrying out cross-sectoral comparisons of governance processes in ten countries to explain the success or failure of specific models, and finally

(v) critically evaluating the transferability of "successful" governance models to other national and/or sectoral contexts in order to foster mutual learning.

The research design used in the GoFOR project has been a multiple case study approach with cases coming from forestry and "adjacent" sectors. The cases analysed deal, for instance, with National Forest Programmes in Austria, Hungary, Norway and Spain, the reformulation of Forest Laws in Denmark and France, the designation of nature conservation areas in Greece and the Netherlands, regional development policies under the LEADER+ programme in Germany, and policies against corruption in Romania. Results provide scientific support for the development, implementation and evaluation of modern policy approaches to further promote sustainable forestry and rural development for the EU, the pan-European as well as for national level policy-making.

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Coordinator

<b>Project-No.</b>	22709	<b>Instrument</b>	SSA	<b>Funding from</b>	
<b>Call</b>	FP6-2004-SSP-4	<b>Duration [months]</b>	24	<b>EU-Frameworkprogramme [EUR]</b>	1.000.000
<b>Activity Code</b>	POLICIES-1.2				
<b>Acronym</b>	REBECA	<b>Homepage</b>	<a href="http://www.rebeca-net.de/">http://www.rebeca-net.de/</a>		

**Name**            **Registration of Biological Control Agents**

**Abstract**

Biological control agents (BCAs) are sustainable and environmentally safe tools to manage pest insects, nematodes, weeds and diseases in agriculture, forestry and horticulture. However, registration procedures have been established for micro-organisms, semiochemicals and botanicals, which prevent their market introduction. Registration largely follows rules developed for synthetic pesticides, thus many possibly irrelevant investigations are requested. Costly risk assessment studies and long term evaluation of dossiers keep these products off the market. The time frame for the EU evaluation of dossiers according to Directive 91/414/EEC is > 70 months compared with ca. 23 months for the same products in the USA. Due to their nature and specificity of action, BCAs should not be treated like synthetic chemicals and therefore need a different approach for risk assessment and regulation. The objective of the Action REBECA is to accelerate the regulation process for BCAs and make it more cost-effective without compromises to the level of safety. The Action will review current legislation, guidelines and guidance documents at Member State and EU level and compare them with legislation in countries where the market introduction of BCAs was more successful. Potential risks of BCAs will be reviewed and proposals are prepared on how regulation of BCAs can be balanced according to their potential hazards. Costs and benefits related to different levels of regulation will be reviewed and trade-offs evaluated. Alternative regulation strategies will be developed for low risk products. The action will bring together stakeholders from industry, science, regulation authorities, policy and environment to form a network within Europe bringing together the expertise and critical mass necessary to improve regulation procedures for BCAs. The action will identify future research tools to support the development of balanced regulation strategies.

**Partners in Austria**

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<b>Call</b>	FP6-2004-SSP-4	<b>Duration [months]</b>	30	<b>EU-Frameworkprogramme [EUR]</b>	1.672.028
<b>Activity Code</b>	POLICIES-1.5				
<b>Acronym</b>	AQUAMONEY	<b>Homepage</b>	<a href="http://www.aquamoney.ecologic-events.de/">http://www.aquamoney.ecologic-events.de/</a>		

**Name**            **Development and Testing of Practical Guidelines for the Assessment of Environmental and Resource Costs and Benefits in the WFD**

**Abstract**

The concept of environmental and resource costs plays a central role in the economic analysis of the European Water Framework Directive (WFD). However, there are no methodological guidelines regarding their practical assessment. The main objective of this project is to develop and test such practical and policy relevant guidelines. This will be achieved through the development of standard procedures and a protocol for good practice in decision appraisal for the WFD. These guidelines will then be tested via a series of case studies of selected, representative European river basins. Outcomes of these case studies will be used in two ways. First, this information will be used to refine the guidelines for good practice in WFD decision appraisal. Second, the common design of case studies will permit investigation of techniques for transferring economic values of environmental and resource costs and benefits from water body level to national and international river basin level and vice versa. As part of this exercise we will also investigate the use of geographical information systems (GIS) to synthesise data from the case studies with available physical environment and census data so as to generate a Europe-wide map of expected benefits of improved water quality due to WFD implementation. The proposed project is highly policy focussed, being driven from the outset by the direct involvement of a Europe-wide Steering Committee of policy-makers and other stakeholders directly involved in the implementation of the WFD.

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<b>Call</b>	FP6-2003-SSP-3	<b>Duration [months]</b>	24	<b>EU-Frameworkprogramme [EUR]</b>	1.876.825
<b>Activity Code</b>	POLICIES-1.5 Task 3				
<b>Acronym</b>	BRIDGE	<b>Homepage</b>	<a href="http://nfp-at.eionet.europa.eu/irc/eionet-circle/bridge/info/data/en/index.htm">http://nfp-at.eionet.europa.eu/irc/eionet-circle/bridge/info/data/en/index.htm</a>		

**Name**            **Background cRiteria for the IDentification of Groundwater thrEsholds**

**Abstract**

The Commission proposal of Groundwater Directive COM(2003)550 developed under Article 17 of the Water Framework Directive (2000/60/EC) sets out criteria for the assessment of the chemical status of groundwater, which is based on existing Community quality standards (nitrates, pesticides and biocides) and on the requirement for Member States to identify pollutants and threshold values that are representative of groundwater bodies found as being at risk, in accordance with the analysis of pressures and impacts carried out under the WFD.

In the light of the above, the objectives of BRIDGE are

- (1) to study and gather scientific outputs which could be used to set out criteria for the assessment of the chemical status of groundwater;
- (2) to derive a plausible general approach, how to structure relevant criteria appropriately with the aim to set representative groundwater threshold values scientifically sound and defined at national river basin district or groundwater body level;
- (3) to check the applicability and validity by means of case studies at European scale;
- (4) to undertake additional research studies to complete the available data, and
- (5) to carry out an environmental impact assessment taking into account the economic and social impacts.

The project shall be carried out at European level, involving a range of stakeholders and efficiently linking the scientific and policy-making communities. Considering the requirement of the diary of the Groundwater Daughter Directive proposal, which implies that groundwater pollutants and related threshold values should be identified before December 2005 and listed by June 2006, the duration of the project should be 24 months. In that way the proposed research will contribute to provide research elements that will be indispensable for preparing discussions on further steps of the future Groundwater Directive.

**Partners in Austria**

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<b>Project-No.</b>	22603	<b>Instrument</b>	STREP	<b>Funding from</b>	
<b>Call</b>	FP6-2004-SSP-4	<b>Duration [months]</b>	36	<b>EU-Frameworkprogramme [EUR]</b>	1.014.119
<b>Activity Code</b>	POLICIES-1.5				
<b>Acronym</b>	EAQC-WISE	<b>Homepage</b>	<a href="http://www.eaqc-wise.net/">http://www.eaqc-wise.net/</a>		

**Name**            **European Analytical Quality Control in support of the Water Framework Directive via the Water Information System for Europe**

**Abstract**

The Water Framework Directive (WFD, 2000/60/EC) sets the objective to prevent deterioration in status of all Community waters and to ensure achievement and maintenance of their good status by 2015. The implementation of the Directive includes the design of monitoring programmes to be carried out by all Member States. The effectiveness of this implementation will highly depend on the ability of Member State' laboratories to measure chemical and ecological changes of the quality of Community waters. Such measurement data will form the basis for decisions about measures required to achieve WFD environmental objectives. Therefore, appropriate analytical quality assurance and control (QA/QC) has to be established across all EU monitoring laboratories. Specific QC needs for fulfilling the analytical requirements resulting from the WFD and relevant Soil Directives will have to be identified and integrated into a European QC system.

In the light of the above, the objectives of EAQC-WISE are:

- (1) to study existing QC tools and systems and scientific outputs suitable to set up a QC system to support the WFD implementation and future EU soil monitoring, also by exploiting links to other stakeholders, such as policy makers and implementers, CIS Working Groups, field and reference laboratories, QC tool providers and relevant research projects;
- (2) to undertake research surveys to identify QC gaps, notably for pre-normative research on difficult parameters and sampling operations with emphasis on priority substances and pollutants of Annex VIII;
- (3) to recommend key steps of a QC system that would provide confidence in analytical data from monitoring at river basin scale as well as at European scale;
- (4) to carry out an impact assessment of such a QC system ensuring data comparability at European level.

The main output will be a blue print of an efficient and potentially sustainable QC system for WFD implementation. It will be disseminated via CIRCA and the WISE portal.

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<b>Call</b>	FP6-2005-SSP-5-A	<b>Duration [months]</b>	24	<b>EU-Frameworkprogramme [EUR]</b>	899.960
<b>Activity Code</b>	POLICIES-1.5				
<b>Acronym</b>	EFI+	<b>Homepage</b>	<a href="http://efi-plus.boku.ac.at/summary.htm">http://efi-plus.boku.ac.at/summary.htm</a>		

**Name**            **Improvement and spatial extension of the European Fish Index**

#### **Abstract**

EFI+ is a research and technological development project designed to gain new knowledge and to develop and improve new biological assessment methods to meet needs of the Water Framework Directive (WFD). The output of the project will be a methodological approach to assess the ecological status of rivers in accordance with the WFD. Therefore the EFI+ project represents a direct and obligatory contribution to the Water Framework Directive in further development and implementation of harmonised fish-based assessment tools and methodology that can be used as a standard method in EU Member States, as well as Candidate countries. The objective of EFI+ is to overcome limitations of the existing European Fish Index (EFI) produced in the FAME project by developing a new, more accurate and pan-European fish index. Specific tasks are (1) to evaluate the applicability of the existing EFI and make necessary improvements to the existing EFI in Central-Eastern Europe and Mediterranean eco-regions, (2) to extend the scope of the existing EFI to cover very large rivers, (3) to analyse relationships between hydro-morphological pressures (incl. continuity) and fish assemblages to increase the accuracy of the EFI, (4) to adapt existing software to the requirements of the new EFI to allow calculation of the ecological status for running waters, (5) to implement and disseminate the EFI and supporting software by integration of the project results in the CIS activities (Common Implementation Strategy) and ongoing national and international monitoring programmes such as the Joint Danube Survey and to present results in end-user workshops and an international conference.

#### **Partners in Austria**

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<b>Call</b>	FP6-2004-SSP-4	<b>Duration [months]</b>	24	<b>EU-Frameworkprogramme [EUR]</b>	1.543.408
<b>Activity Code</b>	POLICIES-1.5				
<b>Acronym</b>	ENVASSO	<b>Homepage</b>	<a href="http://www.envasso.com/">http://www.envasso.com/</a>		

**Name**            **Environmental Assessment of Soil for Monitoring**

#### **Abstract**

This high impact ENVASSO project addresses the needs of Task 6 (Characterisation of soils) by setting a series of interlinked objectives that will lead to the harmonisation of the soil datasets that currently exist in EU member states. Eight threats to soil (erosion, declining organic matter, contamination, compaction, salinization, loss in biodiversity, soil sealing, landslides) are identified in the Commission's official Soil Communication (CEC 2002) and the forthcoming "Soil Thematic Strategy for the Protection of Soil in Europe". By bringing together the key practitioners and academic experts from across the EU, the aim is to develop a system to harmonise existing, mostly national data sets, to form a central reference point to assess current soil status and to ensure sustainable management in future. The project call is for a holistic approach to soil protection through the robust and defensible selection of criteria, thresholds and indicators based on harmonised approaches to soil information collection, analysis and management. This approach is encompassed within ENVASSO through the consideration of real, existing data, interpretation, and approaches to soil inventory & monitoring. ENVASSO will distil this knowledge and expertise leading-edge methodologies to create a working prototype database structure, and Procedures and Protocols for harmonised soil assessment throughout Europe.

The objectives will be achieved by 5 core partners supported by 30 additional partners drawn from all 25 EU member states ensuring maximum impact to enhance soil protection at European level. All the partners are members, or have close links with the European Soil Bureau Network and include EU and Associated States. Account will be taken of the catchment Information System constructed by the JRC and of the Pilot River Basins of the WFD. Criteria and indicators for the characterisation of soil and procedures & protocols for inventory and monitoring will be major deliverables.

#### **Partners in Austria**

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<b>Project-No.</b>	502411	<b>Instrument</b>	STREP	<b>Funding from</b>	
<b>Call</b>	FP6-2002-SSP-1	<b>Duration [months]</b>	36	<b>EU-Frameworkprogramme [EUR]</b>	1.627.652
<b>Activity Code</b>	POLICIES-1.5				
<b>Acronym</b>	HORIZONTAL-ORG	<b>Homepage</b>	<a href="http://www.ecn.nl/horizontal/">http://www.ecn.nl/horizontal/</a>		

**Name**                **Horizontal Standards on Organic Micropollutants for Implementation of EU Directives on Sludge, Soil and Treated**

**Abstract**

The working documents on revision of the Sewage Sludge Directive (86/278/EEC) and on Biowaste and the Soil Protection Communication call for standards for sampling and analysis of sludges, treated biowastes and soils. They list hygienic and biological parameters, and inorganic and organic contaminants. The mechanical properties of these materials are also important operationally. The European Directives are intended to prevent unacceptable release of contaminants, impairment of soil function, or exposure to pathogens, and to protect crops, human and animal health, the quality of water and the wider environment when sludges and treated biowastes are used on land. Analytical results are to some extent defined by the methods of determination, it is therefore desirable that methods are defined before setting limit values. The European Commission wishes to cite European (CEN) standards in order that there is harmonised application of the directives and that reports from Member States (MS) can be compared. This proposal to develop standards for organic compounds in sludge, soil and biowaste, presented by the consortium under the name "HORIZONTAL-ORG", will be carried out under the umbrella of the main project HORIZONTAL "Development of horizontal standards for soil, sludge and biowaste". This ensures full integration in the CEN system through a BTask Force specially set up in support of this project as well as direct supervision by DG ENV and MS, which form the Steering Committee of HORIZONTAL. Preparation of HORIZONTAL-ORG was taken in a full agreement with the DG ENV, DG JRC and the MS already contributing to HORIZONTAL. HORIZONTAL-ORG's objective is to produce standardised methods for sampling and analyzing organic micropollutants in sludges, treated biowastes and soils written in GEN format. Where possible (without compromising precision excessively) these will be horizontal across the different media. Validation of the methods is an essential part of the development as it quantifies performance in terms of repeatability and reproducibility. The consortium is very well connected in CEN and ISO and thus provides an excellent basis for implementation of the deliverables.

**Partners in Austria**

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<b>Project-No.</b>	503614	<b>Instrument</b>	STREP	<b>Funding from</b>	
<b>Call</b>	FP6-2002-SSP-1	<b>Duration [months]</b>	30	<b>EU-Frameworkprogramme [EUR]</b>	1.488.750
<b>Activity Code</b>	POLICIES-1.5				
<b>Acronym</b>	INSEA	<b>Homepage</b>	<a href="http://www.INSEA-eu.info/">http://www.INSEA-eu.info/</a>		

**Name**            **Integrated Sink Enhancement Assessment**

#### **Abstract**

Working group 7 (Agriculture) under the European Climate Change Programme has so far mainly dealt with mitigation potentials of GHG. A thorough integrated economic and environmental assessment in the area of agriculture and sinks has not yet been carried out. In order to support the international negotiation process and for the development of good policies the Integrated Sink Enhancement Assessment (INSEA) project's objective is to develop an analytical tool to assess economic and environmental effects for enhancing carbon sinks in agriculture and forestry. The approach is centered on spatially explicit databases that will allow the calculation of "cost-landscapes" taking on an engineering approach to integrated costs computation of additional sink enhancement measures and negative emission technologies. The various model structures will be applied to detailed European data sets and less detailed global data sets assessing the marginal abatement cost and long-term scenarios of sink enhancement measures. Concise policy conclusions from the modeling exercise will aim at supporting the implementation of the Kyoto Protocol commitments as well as post Kyoto negotiations. In the proposal we advocate a spatially explicit approach that is motivated by the fact that LULUCF activities are by their very nature spatial entities and aggregate non-spatial treatment could, according to our experience, lead to serious biases in the assessment. Furthermore, we propose not only a simple and easily tractable static and deterministic approach for cost calculations, but also more comprehensive, dynamic, and uncertainty (risk)-based treatments. We believe that such a multi-dimensional approach is necessary since ecosystems are more complicated and complex in their responses and therefore robustness and consistency across a variety of decision rules will guarantee sustainable management of this natural resource.

#### **Partners in Austria**

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<b>Project-No.</b>	513699	<b>Instrument</b>	STREP	<b>Funding from</b>	
<b>Call</b>	FP6-2003-SSP-3	<b>Duration [months]</b>	27	<b>EU-Frameworkprogramme [EUR]</b>	600.000
<b>Activity Code</b>	POLICIES-1.5 Task 4				
<b>Acronym</b>	NATAIR	<b>Homepage</b>	<a href="http://natair.iier.uni-stuttgart.de/">http://natair.iier.uni-stuttgart.de/</a>		

**Name**            **Improving and Applying Methods for the Calculation of Natural and Biogenic Emissions and Assessment of Impacts on Air Quality**

**Abstract**

This project aims to improve methods for the calculation of natural and biogenic emissions from various sources and the assessment of impacts on air quality policy implementation. Air pollutants from natural and biogenic sources contribute to ambient air concentrations in the same way as anthropogenic emissions, however, the uncertainty of the estimation of these natural and biogenic emissions is much higher than for anthropogenic emissions. At the same time, with anthropogenic emissions currently decreasing due to emission control activities in many sectors, the relative importance of other sources increases. Thus, it is essential to develop new and improve existing methods for the quantification of emissions from natural and biogenic sources and to use new and improved input data.

The project takes into account the latest research results on air pollutant emissions and their impacts, covering all relevant substances (NO<sub>x</sub>, SO<sub>x</sub>, NH<sub>3</sub>, PM, NMVOC; CH<sub>4</sub>, CO, DMS) from natural and biogenic sources in Europe, e.g. the results from the "Nature Panel" within the UNECE Task Force Emission Inventories and Projection, and includes anthropogenic emissions officially reported to EMEP by countries. Furthermore, the National Reports for the NEC directive for SO<sub>x</sub>, NO<sub>x</sub>, NH<sub>3</sub> and NMVOC will be taken into account, as well as the results of EU research projects such as NOFRETETE or the results from the EUROTRAC Subproject GENEMIS. Satellite data will be used e.g. for the improvement of calculations from forests in general as well as forest fires in particular. In order to assess the impacts of emissions from natural and biogenic sources on air quality policy implementation, the project is designed to advance the current state-of-the-art in methodology for the calculation of natural and biogenic emissions. This includes the analysis of temporal and spatial variability's and the assessment of uncertainties and sensitivities. In addition, the influence of the improved natural and biogenic emissions on the concentration of pollutants calculated with atmospheric models will be analysed using the model CHIMERE.

Finally, policy strategies that are currently under discussion within the EC CAFÉ programme and in the frame of the UNECE CLRTAP to reduce anthropogenic emissions will be analysed in the view of these new results.

**Partners in Austria**

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Partner

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<b>Call</b>	FP6-2002-SSP-1	<b>Duration [months]</b>	36	<b>EU-Frameworkprogramme [EUR]</b>	4.034.000
<b>Activity Code</b>	POLICIES-1.5				
<b>Acronym</b>	SWIFT-WFD	<b>Homepage</b>	<a href="http://www.swift-wfd.com">http://www.swift-wfd.com</a>		

**Name**                **Screening method for Water data Information in support of the implementation of the Water Framework Directive**

**Abstract**

The monitoring requirements for successfully implementing the WFD will directly depend upon available measurement techniques of demonstrated quality, which will be able to deliver reliable data at an affordable cost. Besides the necessary "classical" laboratory analyses, screening methodologies will play a key role in the WFD implementation, in particular for the detection of accidental pollution or the control of water bodies at risk. The WFD will represent a powerful management tool only if monitoring data are of reliable and comparable quality. The costs of wrong decisions based on erroneous data could be tremendous, which justifies that Community efforts are made to ensure that data are produced according to a proper quality assurance regime. In the light of the above, the objectives of SWIFT-WFD should focus on the production of quality control tools for validation purposes of screening methods, an inventory of existing screening test (chemical and biological) methods through laboratory-based (tank experiments) and/or field interlaboratory studies based on a selection of reference aquatic ecosystems at European scale, and with classical laboratory-based analyses to validate their results and demonstrate their equivalence for parameters regulated by the WFD. In parallel, the project should consider the development of new "low-cost", innovative, screening techniques (both for chemical and biological parameters) and their validation using the same approach (interlaboratory testing and comparison with laboratory-based methods). In addition, exchange of knowledge, transfer of technologies and training related to water monitoring will represent a key issue for ensuring the comparability of data produced by screening methods.

**Partners in Austria**

<b>Organisation</b>	<b>Contact</b>	<b>E-Mail-Adress</b>	<b>Role</b>
Technische Universität Wien (TU Wien)	ao.Univ.Prof. Dr. Erwin Rosenberg	erosen@mail.zserv.tuwien.ac.at	Partner
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<b>Project-No.</b>	6509	<b>Instrument</b>	STREP	<b>Funding from</b>	
<b>Call</b>	FP6-2003-SSP-3	<b>Duration [months]</b>	24	<b>EU-Frameworkprogramme [EUR]</b>	599.997
<b>Activity Code</b>	POLICIES-1.6 Task 3				
<b>Acronym</b>	HOLIWAST	<b>Homepage</b>	<a href="http://holiwast.brgm.fr/">http://holiwast.brgm.fr/</a>		

**Name**            **Holistic assessment of waste management technologies**

#### **Abstract**

This HOLIWAST STREP proposal intends to give direct decision making tools and policy support in the field of waste management, particularly effective but low cost waste treatment technologies, by applying tailor made assessment tools such as life-cycle oriented Cost-Benefit-Analysis (CBA) and Cost-Effectiveness-Analysis (CEA). The scope of research includes currently applied legislation as well as EC communications and strategies relevant to the field of waste management. The assessments are partly based on FP5 research activities gathered in the European Urban Waste Management Cluster (EUWMC). One major outcome in that respect is the comprehensive AWAST simulator, which will serve for the assessment of integrated waste management systems in contrasted areas. More precisely, the objectives of the proposed project are:

- (i) a multidisciplinary comparison of different waste management technologies;
- (ii) three case studies showing how to identify the most appropriate technologies within an integrated waste management framework for different socio-economic contexts;
- (iii) an evaluation of policy instruments for promoting these technologies and support decision-makers in waste management.

The partnership composed to realise these objectives consists of partners from 7 countries (A, D, DK, F, I, PL and S) and an Advisory group with well recognised key actors in the field (OECD, EEB, the Austrian Federal Environment Ministry etc).

The workplan comprises work-packages linked to the assessment of the contrasted management systems on

- Policy Instruments,
- Waste Treatment Technologies,
- Performance of the 3 case studies,
- Environmental efficiency of the 3 cases, and
- Socio-economic consequences of the 3 case studies.

The outcomes of these work-packages will derive in direct decision support and valorisation of the results, presented to the European Public in a final policy workshop in Poland.

#### **Partners in Austria**

##### **Organisation**

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##### **Contact**

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##### **Role**

Partner

<b>Project-No.</b>	502487	<b>Instrument</b>	STREP	<b>Funding from</b>	
<b>Call</b>	FP6-2002-SSP-1	<b>Duration [months]</b>	24	<b>EU-Frameworkprogramme [EUR]</b>	882.178
<b>Activity Code</b>	POLICIES-1.6				
<b>Acronym</b>	POPA-CTDA	<b>Homepage</b>	<a href="http://www.popa-ctda.net">http://www.popa-ctda.net</a>		

**Name**            **Policy pathways to promote the development and adoption cleaner technologies**

**Abstract**

The aim of this research project was to assess the issues driving and barriers slowing the development and up take of clean technologies across the energy, agricultural, transport and industrial sectors of the economy. The project aimed to clarify what are the barriers impeding progress of clean technologies and what policy initiatives, and additional research tasks, are needed to address these barriers. The output of this policy-targeted research is of particular use to policy makers looking for new tools and insights into how to encourage innovation and use of clean technologies and hence help in the practical implementation of sustainable development. This project proposed to explore the drivers, barriers and policy context for clean technologies in each of the sectors, complemented by an in-depth analysis of 8 technology-specific case studies. The analysis combined extensive survey work into the reasons behind innovation and business engagement in technology development and uptake, with stakeholder and expert consultation. The analysis differentiated between countries and industrial, economic and regulatory settings. Conclusions on required policy instruments distinguished national and sectoral differences and consider the possibilities as well as limitations of transferring policy measures from one country or case study to another. Research in innovation and environmental policy has provided numerous insights into the barriers that hamper the firm's engagement in the development and use of clean technologies. However, it still lacks empirically tested theoretical models at the European level. The approach of this project integrates and furthers newest theoretical and methodological insights from the innovation and environmental policy realms. Special effort was placed on the design of policy measures that define new environmental and technology policy pathways.

**Partners in Austria**

<b>Organisation</b>	<b>Contact</b>	<b>E-Mail-Adress</b>	<b>Role</b>
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<b>Project-No.</b>	513738	<b>Instrument</b>	STREP	<b>Funding from</b>	
<b>Call</b>	FP6-2003-SSP-3	<b>Duration [months]</b>	12	<b>EU-Frameworkprogramme [EUR]</b>	392.500
<b>Activity Code</b>	POLICIES-3.4 Task 3				
<b>Acronym</b>	(IMP) <sup>3</sup>	<b>Homepage</b>	<a href="http://www.umweltbundesamt.at/umweltschutz/uvpsupemas/uvpoesterreich1/schwerpunkte/imp3/">http://www.umweltbundesamt.at/umweltschutz/uvpsupemas/uvpoesterreich1/schwerpunkte/imp3/</a>		

**Name**            **Improving the Implementation of Environmental Impact Assessment**

**Abstract**

The European Union has enacted the EIA Directive (85/337/EEC amended by Directive 97/11/EC) to apply the assessment of the environmental effects of those projects which are likely to have significant effects on the environment. A report of the Commission has revealed that there are still various weaknesses in the Member States implementation. Therefore the aim of the project (IMP)<sup>3</sup> is to improve the application of EIA. It will explore the different forms of application in the current and future EU Member States and in countries outside of Europe making recommendations how to improve the application of EIA focused on three issues:

- (1) a better incorporation of human health aspects into EIA;
- (2) an increase in the consistency of risk assessments regarding various sources of risks (natural hazards, accidents, sabotage) by integrating risk exposure (potential of dangers) and vulnerability (damage potential);
- (3) survey of thresholds according to Annex I such as a documentation of the relationship between the two Annexes and their practical implementation.

Therefore, six work packages (WP) are defined. WP1 concentrates on the application of EIA. A questionnaire will be sent to EIA-stakeholders in all 25 Member States to provide a survey about the application of the EIA in the EU. Interviews with national EIA stakeholders are held in 10 EU and 2 Non-EU countries and the project will be discussed with the EU EIA/SEA Expert Group. WP2, WP3 and WP4 concentrate on the project's main issues (health, risk assessment and thresholds within the EIA) taking into account the results of WP1, of a literature review and the research already performed in this field and interviews with senior experts are held. In WP5 the results of WP1 to WP4 are merged into a final report. WP6 contains the project management.

**Partners in Austria**

<b>Organisation</b>	<b>Contact</b>	<b>E-Mail-Adress</b>	<b>Role</b>
ÖIR - Österreichisches Institut für Raumplanung	DI Dr. Erich Dallhammer	dallhammer@oir.at	Coordinator
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<b>Project-No.</b>	22793	<b>Instrument</b>	STREP	<b>Funding from</b>	
<b>Call</b>	FP6-2004-SSP-4	<b>Duration [months]</b>	30	<b>EU-Frameworkprogramme [EUR]</b>	790.810
<b>Activity Code</b>	POLICIES-3.4				
<b>Acronym</b>	FORESCENE	<b>Homepage</b>	<a href="http://www.forescene.net/">http://www.forescene.net/</a>		

**Name**            **Development of a Forecasting Framework and Scenarios to Support the EU Sustainable Development Strategy**

**Abstract**

FORESCENE develops an analytical framework for consistent environmental sustainability scenario building (forecasting, backcasting, simulation) in areas such as water, soil, biodiversity, waste and natural resources. Problem issues and priority policy fields such as agriculture, infrastructures/land use, industry /economy are selected in close contact with the EU Commission. The project focuses on backcasting, to identify different scenarios leading to the achievement of future targets.

**FORESCENE**

- (1) describes the chosen environmental problems, review policy objectives and indicators, and determine the cross-cutting driving forces;
- (2) develops core elements of integrated sustainability scenarios (goal definition);
- (3) determines measures and processes to be considered for change (pre-backcasting);
- (4) addresses quantitative and qualitative parameters for measurement (parameterization);
- (5) develops a Business-As-Usual (BAU) scenario framework and example projections (forecasting);
- (6) develops alternative scenarios (incl. backcasting);
- (7) checks the options for modelling, and
- (8) works out conclusions.

To integrate the eight steps FORESCENE organizes series of workshops to involve DGs and stakeholders, to integrate knowledge on (a) cross-cutting drivers of various environmental problems and priority policy fields, and (b) to define essentials for integrated sustainability scenarios in terms of goals and cross-cutting policy measures.

Further experts are involved at various stages of the project. The project results in recommendations for future policy development with regard to the EU's sustainability strategy and the regulatory framework for Extended Impact Assessments, recommendations for the improvement of official information systems, and concrete proposals for the use and extension of existing simulation models. FORESCENE provides and makes use of synergies with the Integrated Projects MATISSE and SENSOR.

**Partners in Austria**

**Organisation**

SERI Nachhaltigkeitsforschungs und -kommunikations GmbH

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**Role**

Partner

<b>Project-No.</b>	22652	<b>Instrument</b>	STREP	<b>Funding from</b>	
<b>Call</b>	FP6-2004-SSP-4	<b>Duration [months]</b>	24	<b>EU-Frameworkprogramme [EUR]</b>	695.000
<b>Activity Code</b>	POLICIES-3.4				
<b>Acronym</b>	GAINS-ASIA	<b>Homepage</b>	<a href="http://www.iiasa.ac.at/rains/gains/">http://www.iiasa.ac.at/rains/gains/</a>		

**Name**            **Greenhouse Gas and Air Pollution Interactions and Synergies**

**Abstract**

GAINS-Asia brings together state-of-the-art disciplinary models on air pollution and climate change to assess technical and market based policies that maximize synergies and benefits between these policy areas. GAINS-Asia will integrate policy-relevant information from the BernCC carbon cycle model, the MESSAGE global energy scenario model, the RAINS air pollution integrated assessment model, its extension addressing mitigation potentials for greenhouse gas emissions in Europe, the TM5 hemispheric atmospheric chemistry and transport model, and the implementations of the MARKAL and IPAC energy models for India and China. GAINS-Asia will construct reduced-form representations of these models and combine these functional relationships at the meta-level into a new GAINS-Asia policy assessment framework. This tool will allow interactive analyses of the cost-effectiveness and benefits of a wide range of technical and market based policy options. Optimization approaches will be developed to identify combinations of policies aimed at reducing long-range and hemispheric air pollution alongside with greenhouse gas emissions in order to optimise overall benefits in the medium and long term. GAINS-Asia will focus on near- to medium term policy measures for European and Asian countries that maximize synergies between these two policy areas, while embedding them in global strategies that would achieve stabilization of greenhouse gas concentrations in the longterm. GAINS-Asia will be implemented for 43 European countries including Russia, and for China and India. To enable analyses in a global context, the rest of the world will be represented at an aggregated level. An interactive software will be developed that allows stakeholders to use GAINS-Asia over the Internet for exploring the interactions between air pollution and climate change for their own analyses.

**Partners in Austria**

**Organisation**

International Institute for Applied Systems Analysis  
(IIASA)

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**Role**

Coordinator

<b>Project-No.</b>	22773	<b>Instrument</b>	STREP	<b>Funding from</b>	
<b>Call</b>	FP6-2004-SSP-4	<b>Duration [months]</b>	30	<b>EU-Frameworkprogramme [EUR]</b>	791.099
<b>Activity Code</b>	POLICIES-3.4				
<b>Acronym</b>	TranSust.Scan	<b>Homepage</b>	<a href="http://www.transust.org/">http://www.transust.org/</a>		

**Name**            **Scanning Policy Scenarios for the Transition to Sustainable Economic Structures**

#### **Abstract**

The focus of this research project will be to scan a wide range of policy scenarios as to their relevance for the European Sustainable Development Strategy in view of Extended Impact Assessment. Embedded in the TranSust network of researchers, with its expertise in modelling the transition to sustainable economic structures, the project will link and expand an extensive set of available models. Using a scenario approach in cooperation with stakeholders, these models will address the strategic policy options. In a first step, existing models will be extended to reflect the multi-functionality aspect of sustainability policies and their trade-offs with other policies. In addition to the traditional economic, environmental and social issues, the expanded models will address the new policy agenda as put forward by the Lisbon Strategy of the European Union and the World Summit for Economic Development. The models will therefore be able to deal with competitiveness, economic development, security, the preparations for Beyond-Kyoto policies, and interaction between technological change and the use of natural resources. In a second step, this enhanced set of models will be used for a comprehensive analysis of a wide range of policy scenarios. In designing the scenarios, a participatory approach will emphasise close cooperation with stakeholders, Commission services, and international organisations. By backcasting the path dependency and by simulating the range of assumptions, the scenario analysis will reveal the sensitivity of forecasts. The methodology and databases will be made available to institutions involved in policy decision-making. TranSust.Scan aims to enhance European competence and expertise for dealing with the emerging extended facets of sustainability and their implications for policy design. Besides supporting strategic policy preparation for the European Union, the dissemination activities will address non-European institutions.

#### **Partners in Austria**

##### **Organisation**

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Coordinator

## **INCO: Specific measures in support of international co-operation (Projects with Austrian participation)**

### ***A. Developing Countries***

#### **A.2. Natural resources**

### ***B. Mediterranean Partner Countries***

#### **B.1. Environment**

### ***C. Western Balkan Countries***

#### **C.1. Environment**

### ***D. Russia and the other New Independent States***

#### **D.1. Environmental protection**

#### **D.3. Health protection**

<b>Project-No.</b>	505250	<b>Instrument</b>	SSA	<b>Funding from</b>	
<b>Call</b>	FP6-2002-INCO-DEV/SSA-1	<b>Duration [months]</b>	6	<b>EU-Frameworkprogramme [EUR]</b>	35.000
<b>Activity Code</b>	INCO-2002-A				
<b>Acronym</b>	MICRODIV2	<b>Homepage</b>	<a href="http://www.amazonianetwork.org/microdiv2_description.html">http://www.amazonianetwork.org/microdiv2_description.html</a>		

**Name**            **Bioprospecting of Amazonian micro-organisms and plant secondary metabolites - Workshop and course**

**Abstract**

The proposed workshop and course will

- transfer of skilled knowledge in basic research, economic opportunities of biotechnology and initiation of an awareness rising process of the sensitive ethical questions according to this topic;
- transfer of practical know-how in prospecting strategies, identification of micro-organism, and characterization of plant secondary metabolites, from European universities (Austria and Finland), to universities, other educative organizations and private enterprises in Pan-Amazonia;
- widen an international expert-network, to transform Amazonian biodiversity into added value and regulate the access to genetic resources and the sharing of the benefits arising from their use, with a view to provide compensation to the centres of origin of genetic resources and the holders of traditional knowledge used in biotechnological inventions, as postulated by the Convention on Biological Diversity.

Therefore the organization activities will focus on a 3 weeks PRACTICAL COURSE for training experts, professionals and students in microbiological, chemical and molecular biological methods, followed by a 3 days WORKSHOP, bringing together high level experts from Europe and Pan-Amazonia to a sustainable network of scientific cooperation.

**Partners in Austria**

**Organisation**

Amazonia Network

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**Role**

Coordinator

<b>Project-No.</b>	3659	<b>Instrument</b>	STREP	<b>Funding from</b>	
<b>Call</b>	FP6-2002-INCO-DEV-1	<b>Duration [months]</b>	36	<b>EU-Frameworkprogramme [EUR]</b>	1.329.412
<b>Activity Code</b>	INCO-2002-A2.1				
<b>Acronym</b>	ASSESS-HKH	<b>Homepage</b>	<a href="http://www.assess-hkh.at/">http://www.assess-hkh.at/</a>		

**Name**                **Development of an assessment system to evaluate the ecological status of rivers in the Hindu Kush-Himalayan region**

#### **Abstract**

The Hindu Kush-Himalayan region is not only the world's highest mountain region, but also the most populous, covering some 3,500 km<sup>2</sup> over eight countries from Pakistan in the west to Myanmar in the east. It sustains approximately 140 million people and affects the lives of more than three times as many in the plains and river basins below. The HKH region is a vast storehouse of hydropower, timber, firewood, medicinal plants, rich minerals and last, but not least, water.

The specific and verifiable objectives of the ASSESS-HKH Project are:

- (1) Develop and validate a three-tier methodology to identify environmental hot spots in rivers of the HKH region. For incrementally complex ecological assessment using benthic invertebrates from a manually calculated overview method to computer-aided detail analyses of selected regions or sites.
- (2) Adapt and further develop an information management tool (application software and databases) to perform analysis calculations for quantification and rating of eco-logical status of rivers based on biotic data.
- (3) To interpret ecological data collected in the HKH region to validate the assessment methodology and information management tool and provide a basis for policy recommendation, trans-national water resource planning and ecosystem management.
- (4) Capacity Building of local scientists in the field of recognition and application of criteria for biological indicators in ecosystem management.
- (5) Dissemination and awareness creation on the importance and usefulness of biological indicators in ecosystem management ecosystem management.

The ASSESS-HKH Project addresses research priority A.2.1. "Managing humid and semi-humid ecosystems", which is part of the chapter 10.3.1. "A of the specific measures in support of international co-operation in developing countries".

#### **Partners in Austria**

##### **Organisation**

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##### **Role**

Coordinator

<b>Project-No.</b>	510905	<b>Instrument</b>	STREP	<b>Funding from</b>	
<b>Call</b>	FP6-2002-INCO-DEV-1	<b>Duration [months]</b>	42	<b>EU-Frameworkprogramme [EUR]</b>	1.699.999
<b>Activity Code</b>	INCO-2002-A.2.1				
<b>Acronym</b>	DIM-SUM	<b>Homepage</b>	<a href="http://www.project-dimsum.net/">http://www.project-dimsum.net/</a>		

**Name**            **Innovative decision making for sustainable water management in developing countries**

#### **Abstract**

Innovative decision making for sustainable management of water aims at providing tools needed if any integrated and participatory management of water should be carried out. Management refers in this context to its core element, the decision making process (DMP). Focusing on water supply and sanitation (as there the need is paramount), DIM-SUM will carry out one case study in one river basin in each participating partner country, Indonesia, Maharashtra-India, Malaysia and Nepal, in order to evaluate and develop these tools. They will on the one hand encompass tools to generate, assess and compare technical scenarios, ranging from argumentative to computational, and fragmented to integrated methods, and on the other, tools to enhance a participatory decision making, including information & communication technologies and hybrid methods. The most innovative deliverable of DIM-SUM will be recommendations for a sustainable DMP encompassing an adaptive tool box (comprised of several tools, where the user can select those fitting to her/his needs), guidelines and policy recommendations, which will enable local decision makers to carry out an assessment of technical scenarios at an appropriate level of integration and participation. In particular, facing impairing quality and quantity of natural resources, an integrated and participatory DMP becomes vital. Environmental resource efficiency has to be balanced with the risks of technical systems (technical, economic, social, environmental risks), and many other aspects. DIM-SUM is motivated by the fact that such exercises are usually carried out in a superficial way only, despite the international call for an integrated water management. Therefore, DIM-SUM will involve a wide range of stakeholders in the project, ranging from NGOs to governmental and international organisations.

#### **Partners in Austria**

<b>Organisation</b>	<b>Contact</b>	<b>E-Mail-Adress</b>	<b>Role</b>
Centre for Environmental Management and Decision Support	ao.Univ.Prof. Dr. Norbert Brunner		Partner
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<b>Project-No.</b>	32448	<b>Instrument</b>	CA	<b>Funding from</b>	
<b>Call</b>	FP6-2004-INCO-DEV-3	<b>Duration [months]</b>	36	<b>EU-Frameworkprogramme [EUR]</b>	1.497.000
<b>Activity Code</b>	INCO-2004-A2.3				
<b>Acronym</b>	COMPETE	<b>Homepage</b>	<a href="http://www.compete-bioafrica.net/">http://www.compete-bioafrica.net/</a>		

**Name**                    **Competence Platform on Energy Crop and Agroforestry Systems for Arid and Semi-arid Ecosystems - Africa**

**Abstract**

The objective of this Competence Platform on Energy Crop and Agroforestry Systems for Arid and Semi-arid Ecosystems is to stimulate bio-energy implementation in arid and semi-arid regions in Africa. COMPETE will establish a platform for policy dialogue and capacity building in the major multi- and bi-lateral funding organisations and key stakeholders throughout the bio-energy provision and supply chains. As global fossil energy resources become constrained, bio-energy is emerging as a major potential resource. The arid and semi-arid regions of Africa and Latin America have, in theory, very large areas of land (and associated water and human resources) 'available' for bio-energy production. However, the production of biomass for energy will result in substantial impacts (pos. and neg.) on ecosystems and cultures of these target regions. The protection of biodiversity, rural livelihoods and management of scarce water resources are critical considerations in any analysis of the potential for sustainable bio-energy provision in arid and semi-arid regions. Similarly, whilst modern bio-energy could contribute significantly to poverty alleviation in rural areas, the effects of changes to the supplies of natural resources and ownership of those resources must be an integral part of the development options proposed. Therefore, a comprehensive, multi-disciplinary, assessment of current land use, energy demand and technology innovation focused on Africa, will be carried out through COMPETE. COMPETE will link implementation activities, policy development, trade, funding and South-South-EU cooperation. The improved knowledge of national and regional land use and technology options generated will provide the local and international partners with the basis for a complete assessment of social, environmental and economic impacts. Finally, all the outputs of COMPETE will be integrated into a carefully designed dissemination strategy targeted at decision makers and stakeholders.

**Partners in Austria**

<b>Organisation</b>	<b>Contact</b>	<b>E-Mail-Adress</b>	<b>Role</b>
Austrian Biodiesel Institute			Partner
Höhere Bundeslehr- und Forschungsanstalt für Landwirtschaft, Landtechnik und	DI Manfred Wörgetter		Partner

<b>Project-No.</b>	32397	<b>Instrument</b>	CA	<b>Funding from</b>	
<b>Call</b>	FP6-2004-INCO-DEV-3	<b>Duration [months]</b>	36	<b>EU-Frameworkprogramme [EUR]</b>	800.000
<b>Activity Code</b>	INCO-2004-A2.3				
<b>Acronym</b>	MAI-TAI	<b>Homepage</b>	N/A		

**Name**            **Managing water scarcity: Intelligent Tools and cooperative strategies**

### **Abstract**

MAI-TAI deals with integrated water resources management. It is designed as a coordination action of leading research and innovation operators, aiming at developing a coherent set of innovative, relevant and cooperative policy options and management strategies. Regionally it works with partners from China and India, and the work will focus around two “lead” river basins: The Hai river basin in North-East China and the Yamuna river basin in North India, both in arid and/or semi arid regions.

The proposal features the following core coordination activities:

- (1) Enabling a dialogue between researchers and practitioners promoting state of the art and indigenous technologies & practices: The consortium believes that modern systems alone are not capable of solving the water needs of the people in many developing countries, and there is a strong need of generating innovative options through cross fertilization between both “worlds”. This “cross-fertilization” will be enabled by methods and rich experiences of user innovations research.
- (2) Based on (1), innovative policy options and management strategies will be compiled. Then, a multi-stakeholder interaction in order to evaluate these options and strategies will be carried out, supported by intelligent knowledge management tools: In the presence of a variety of actors (institutions, organisations, individuals) each with specific forms of knowledge with respect to scale, topic, reasoning processes, and a large number of information expected to be generated through the multi-stakeholder interaction, the issue of learning and knowledge management is of paramount importance. A strong impact of the coordination action is ensured by a highly inter- and transdisciplinary team, encompassing internationally reputable scientific institutions as well as strong governmental partners and NGOs. The latter two will considerably facilitate a wide and in particular meaningful stakeholder dialogue throughout the project.

### **Partners in Austria**

<b>Organisation</b>	<b>Contact</b>	<b>E-Mail-Adress</b>	<b>Role</b>
Centre for Environmental Management and Decision Support	ao.Univ.Prof. Dr. Norbert Brunner		Partner
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<b>Project-No.</b>	32217	<b>Instrument</b>	STREP	<b>Funding from</b>	
<b>Call</b>	FP6-2004-INCO-DEV-3	<b>Duration [months]</b>	48	<b>EU-Frameworkprogramme [EUR]</b>	2.099.944
<b>Activity Code</b>	INCO-2004-A2.3 INCO-2004-A3.2 FOOD				
<b>Acronym</b>	DADOBAT	<b>Homepage</b>	<a href="http://www.dadobat.soton.ac.uk/">http://www.dadobat.soton.ac.uk/</a>		

**Name**            **Domestication and development of baobab and tamarind.**

**Abstract**

Both baobab and tamarind are plant species with high potential for arid and semi-arid areas in the developing world. They can provide food, medicine, wood and a number of secondary processed products for income generation that can help to meet basic needs of an increasing number of people in a context of decreasing land availability. Farmers in these regions, however, need improved planting material with known properties for integration in (traditional and improved) agroforestry and cropping systems. They also need well-documented planting techniques for sustained yields and production. Processing and marketing should add and sustain value generated by production and transformation activities. This proposal will address issues of domestication and new crop/niche development through a holistic research approach. The project envisages multidisciplinary activities that will broaden the availability of characterised and improved plant material with documented management practices for introduction into agroforestry systems, and improved traditional cropping. As such, the project will concentrate on germplasm collection and characterisation, propagation, adapted cropping techniques' development, medicinal and nutraceutical properties, marketing and commercialisation, drought stress (eco-)physiology and dissemination of results.

**Partners in Austria**

**Organisation**

Universität für Bodenkultur Wien (BOKU)

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**Role**

Partner

<b>Project-No.</b>	31694	<b>Instrument</b>	SSA	<b>Funding from</b>	
<b>Call</b>	FP6-2002-INCO-DEV/SSA-1	<b>Duration [months]</b>	18	<b>EU-Frameworkprogramme [EUR]</b>	270.000
<b>Activity Code</b>	INCO-2002-A2.3				
<b>Acronym</b>	WATERMAN	<b>Homepage</b>	<a href="http://waterman.boku.ac.at">http://waterman.boku.ac.at</a>		

**Name**            **Dissemination of research results in semi-arid and arid ecosystems with a focus on sustainable water resource management in Ethiopia**

#### **Abstract**

The EU founded project WATERMAN focuses on analysis and dissemination of research within Ethiopia. The 18-month project activities mainly include three workshops at three Ethiopian universities (Hawassa, Haramaya and Mekelle), a scientific Project Plan Award and an international symposium.

Strategic objectives addressed are:

1. Managing arid and semi-arid ecosystems
2. Management strategies for enhanced economic productivity
3. Sustainable water management at river-basin scale
4. Symposium: 'Mobilising water research for development: Thinking differently about dissemination'

The WATERMAN consortium collectively offers a unique blend of expertise for creating solutions for sustainable water and ecosystem management both in semi-arid and arid ecosystems.

WATERMAN contributes both to implementation of the European Research Area and the sustainable development of Eastern Africa.

WATERMAN strengthens international relations through joint research and technology transfer within Eastern Africa.

WATERMAN-Project aims for bridging the gap between research results and use of these towards development outcomes on the ground (in Ethiopia in particular).

- Learn with and from farmers
- Sharing information between stakeholders
- Motivate through successful project experiences

WATERMAN-Project addresses the fact that

- knowledge is not always available.
- knowledge is often not accessible – it sits in papers, in journals.
- knowledge is not in the right format, language or location.

#### **Partners in Austria**

##### **Organisation**

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##### **Role**

Coordinator

<b>Project-No.</b>	509091	<b>Instrument</b>	STREP	<b>Funding from</b>	
<b>Call</b>	FP6-2002-INCO-MPC-1	<b>Duration [months]</b>	36	<b>EU-Frameworkprogramme [EUR]</b>	1.499.997
<b>Activity Code</b>	INCO-2002-B1.1				
<b>Acronym</b>	OPTIMA	<b>Homepage</b>	<a href="http://www.ess.co.at/OPTIMA/">http://www.ess.co.at/OPTIMA/</a>		

**Name**            **Optimisation for Sustainable Water Management**

#### **Abstract**

Water is a key resource in the Mediterranean region, and efficient use and allocation are paramount to sustainable development, in particular in the coastal zone of the South and East, undergoing fast economic development, land use and demographic change. The overall aim of OPTIMA is to develop, implement, test, critically evaluate, and exploit an innovative, scientifically rigorous yet practical approach to water resources management intended to increase efficiencies and to reconcile conflicting demands. Based on the European Water Framework Directive (2000/60/EC) the approach equally considers economic efficiency, environmental compatibility, and social equity as the pillars of sustainable development. The proposed methodology will extend classical optimisation and mathematical programming methodology, in several respects, by:

- (1) Using a full-featured dynamic and distributed simulation model and genetic programming as the core to generate feasible and non-dominated alternatives. Water technology alternatives including their cost structure, and up-to-date remote-sensing derived land use information are primary inputs;
- (2) Extending the set of objectives, criteria and constraints through expert systems technology to include difficult to quantify environmental and social dimensions;
- (3) Putting specific emphasis on local acceptance and implementation through the inclusion of stakeholders in an interactive, participatory decision making process carefully embedded in institutional structures, using a discrete multi-criteria reference point methodology;
- (4) Comparative evaluation and benchmarking across the set of local and regional case studies in 12 countries, namely Italy, Greece, Cyprus, Malta, Turkey, Syria, Lebanon, Jordan, Palestine, Tunisia and Morocco around the Southern and Eastern Mediterranean.

The project also aims at building a wide dissemination network of expertise and knowledge exchange sharing its findings, generic data, and best practice examples.

#### **Partners in Austria**

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<b>Project-No.</b>	517612	<b>Instrument</b>	CA	<b>Funding from</b>	
<b>Call</b>	FP6-2003-INCO-MPC-2	<b>Duration [months]</b>	48	<b>EU-Frameworkprogramme [EUR]</b>	2.000.000
<b>Activity Code</b>	INCO-2003-B1				
<b>Acronym</b>	MELIA	<b>Homepage</b>	<a href="http://www.meliaproject.eu/">http://www.meliaproject.eu/</a>		

**Name**            **Mediterranean dialogue on integrated water management**

### Abstract

Despite the important number of research projects in the water management, monitoring of water resources and water related technology, performed at local, regional or Euro-Mediterranean scale, there exist a general perception that water management models are still constructed from points of view that ignores contributions from all the key stake-holders, specially users and citizens, determinant for the impact on the territory of water schemes and the satisfaction of the water demand, specially from the sustainability point of view. Another general perception in the Mediterranean area is the lack of visibility of the important role that Science and Technology play in the sustainable development of the region.

Parts of these problems are due to communication gaps between political and administrative institutions, scientists, cultural workers, lawyers, economist, end-users and citizens. The Coordinated Action MELIA aims at structuring a dialogue among the key stakeholders concerned and affected by water use and management, such as scientists and professionals, decision makers, policy makers, water providers, citizens. This dialogue aims at creating a Forum where water players can share knowledge, find consensus and propose new perspectives on the emerging needs and appropriate integration of knowledge for water management, in a region of scarce resources such as the entire Mediterranean basin.

The main MELIA targets are:

- (1) Building a knowledgebase for integrated water management planning, based on integrating contributions from the wider spectra of perspectives;
- (2) Develop a Mediterranean-wide awareness of the social (cultural and participatory), economic and technological issues related to water management;
- (3) Propose participatory mechanisms and prevention tools to avoid conflicts between regions, states and different waters users;
- (4) Provides legislative and administrative bodies with criteria and arguments to support sustainable water policies and economy.

### Partners in Austria

#### Organisation

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Partner

<b>Project-No.</b>	517728	<b>Instrument</b>	CA	<b>Funding from</b>	
<b>Call</b>	FP6-2003-INCO-MPC-2	<b>Duration [months]</b>	36	<b>EU-Frameworkprogramme [EUR]</b>	480.000
<b>Activity Code</b>	INCO-2003-B1.3				
<b>Acronym</b>	INNOVA-MED	<b>Homepage</b>	<a href="http://chem.eng.ankara.edu.tr/innova/lecnote/D_Barcelo_Introduction.pdf">http://chem.eng.ankara.edu.tr/innova/lecnote/D_Barcelo_Introduction.pdf</a>		

**Name**            **Innovative processes and practices for wastewater treatment and re-use in the Mediterranean region**

#### **Abstract**

The need to introduce remediation and treatment technologies in the water cycle was recognized by the European Commission under the 5th and 6th Framework Programme and several research projects aiming at 'improving WW treatment techniques through process optimisation to minimise environmental impacts from WW treatment' were funded. In parallel various initiatives are being conducted at the national level, both in the EU and Mediterranean Partner Countries (MPC). However, the communication gaps still existing among scientists and local communities (and water users) and the lack of networking among different Mediterranean countries are the main obstacles to more efficient use of the gained knowledge. The INNOVA-MED Coordination Action will include 7 EC funded projects (P-THREE, CADOX, EMCO, AQUACAT, EmWATER, WATERBENCH and HOLIWAST), dealing with wastewater treatment and water management:

- 2 from the EESD programme (5th FP); sub-programme area: Waste water treatment and re-use,
- 3 from the INCO programme (for Western Balkan Countries and Developing countries and Newly Industrialized States),
- one from Policy-orientated research programme - Scientific Support to Policies (SSP) (Scientific Support to Policies) programme and
- one project from the EU-MEDA programme.

The main objective is to explore the synergies of the research carried out within different programmes and countries (eg. ED, WBC, DEV, NIS, MCP), to coordinate the research activities of ongoing EU and national projects dealing with development of innovative technologies for wastewater treatment and treatment and disposal of sludges and with application of innovative practices for re-use of reclaimed water and to facilitate the communication with researchers and national and regional institutions from the MPC and allow a broad dissemination and transfer of the knowledge/technology/practice to the Mediterranean area.

#### **Partners in Austria**

##### **Organisation**

Universität für Bodenkultur Wien (BOKU)

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##### **Role**

Partner

<b>Project-No.</b>	11948	<b>Instrument</b>	SSA	<b>Funding from</b>	
<b>Call</b>	FP6-2002-INCO-MPC/SSA-2	<b>Duration [months]</b>	18	<b>EU-Frameworkprogramme [EUR]</b>	120.000
<b>Activity Code</b>	INCO-2002-B1.3 INCO-B.1				
<b>Acronym</b>	RESYSPRODESAL	<b>Homepage</b>	<a href="http://www.resyspro.net/">http://www.resyspro.net/</a>		

**Name**            **Systems Analysis Environment for the Integration of Renewable Energy with De-central Water and Power Production in Mediterranean Partner Countries**

**Abstract**

In MPC a large deficit of well equipped and reliably operated de-central Integrated Water and Power Points (IWPP) for villages and in rural areas exists. Water and power authorities supported by regional R&TD institutions in MPC could reduce such deficits if they developed their own capacity for flexible, innovative, fast and cost-effective assessment of technically and socio-economic appropriate solutions. Based on the experience from earlier isolated community R&TD and projects of the Middle East Desalination Research Center (MEDRC) on the use of RE for de-central water and power, the Consortium proposes an SSA on the RE and water supply related topics in SP1-10 Objectives B 1.3 and B 1.5.

The main SSA objective is the transfer and dissemination of know how and tools for systems analysis on the appropriate integration of RE technologies with de-central water and power services under local conditions of MPC. The action scope comprises:

- exemplary studies on the integration of (hybrid) RE conversion with combined water and power supply to villages and rural areas,
- identification of opportunities and conditions for economically and socially sustainable deployment of hybrid RE technologies in MPC,
- training and capacity building in MPC institutions for IWPP assessment services under local socio-economic conditions,
- dissemination of results through the networks of the European Desalination Society (EDS) and MEDRC covering the MENA region.

The capacity building shall be oriented to planning and assessment services and will include training of the participants in using RESYSproDESAL for exemplary case studies in their countries. The SSA concept is open for later extension to the participation of R&TD institutions and water and power authorities from other MPC not yet represented by the Consortium.

**Partners in Austria**

<b>Organisation</b>	<b>Contact</b>	<b>E-Mail-Adress</b>	<b>Role</b>
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<b>Project-No.</b>	509177	<b>Instrument</b>	STREP	<b>Funding from</b>	
<b>Call</b>	FP6-2002-INCO-WBC-1	<b>Duration [months]</b>	36	<b>EU-Frameworkprogramme [EUR]</b>	1.000.000
<b>Activity Code</b>	INCO-2002-C1				
<b>Acronym</b>	TRABOREMA	<b>Homepage</b>	N/A		

**Name**                **Concepts for integrated transboundary water management and sustainable socio-economic**

#### **Abstract**

The TRABOREMA Project will stabilise and reinforce research potential in the field of integrated management of regional water resources planning and policy in a transboundary lake region between Albania, FYROM and Greece. Using the EU Water Framework Directive as a guideline, the Consortium, which also includes universities specialised in environmental issues from Austria and Spain, will design and implement a monitoring system in the catchment to Lake Prespa. Together they will research upstream/downstream water user demands to determine environmental pressures and impacts in terms of ecological quality ratios (EQR) for the target region. This data will be modelled and simulated using state of the art Computer applications to make predictions and perform scenarios. The results will be analysed and used as a basis for transboundary policy recommendations for integrated management of the water resources and sustainable socio economic development of the region.

The strategic objectives of the TRABOREMA Project are:

- (1) Form successful and enduring partnerships within the consortium and to interested parties such as authorities, policy makers and public participants within countries of the target region and to EU member states to help settle political and social situation in the Western Balkans.
- (2) Communicate the importance of integrated water management (which incorporates waste and energy) as a theme of common interest to contribute to sustainable development in the Western Balkans.
- (3) Develop methodologies for implementation of transboundary integrated water management in Lake Prespa and associated river basin as a pilot region, which can then be transferred to other regions.
- (4) Implement a monitoring system to deliver data for development and verification of ecological quality ratios (EQR) and computer-based modelling and simulation for the target region.
- (5) Make recommendations for sustainable development policy and define priorities for further action.

#### **Partners in Austria**

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<b>Project-No.</b>	509160	<b>Instrument</b>	STREP	<b>Funding from</b>	
<b>Call</b>	FP6-2002-INCO-WBC-1	<b>Duration [months]</b>	36	<b>EU-Frameworkprogramme [EUR]</b>	1.200.000
<b>Activity Code</b>	INCO-2002-C1.1				
<b>Acronym</b>	SARIB	<b>Homepage</b>	<a href="http://www.sarib.net/">http://www.sarib.net/</a>		

**Name**            **Sava River Basin: Sustainable Use, Management and Protection of Resources**

**Abstract**

The Sava River (945 km) is the biggest tributary to the Danube River and has 95551 km<sup>2</sup> large catchment. It extends over four countries, Slovenia, Croatia, Bosnia and Herzegovina and Serbia and Montenegro. In the development of the river basin management plan all countries are already collaborating under the International Commission for the Protection of the Danube River (ICPDR) guidance. Until 1991, the methodological bases for data collection have been reasonably unified over the catchment, but lacking a lot of today's important aspects such are ecological character of the river and its tributaries, inventory of pollution sources, dangerous substances, socio-economic parameters, cost and benefit implications and similar. For the later period a lot of data are missing due to insufficient monitoring (financing, recent warfare) and weak institutional and legal control over use of water and land resources of the Sava River catchment. Many aspects of the river quality need scientific investigations. Furthermore, there is a need to link the knowledge of river quality state and environmental and health risk with pressures and their driving forces to propose efficient and beneficiary actions and measures for protection. In the project specific tools based on a combination of chemical analysis and biological effect methods will be developed and validated for the pollution of sediments and impact on water biota. Geographical distribution of pollution will be identified and historical trends defined. Integrated prediction model about the behaviour of hazardous chemical substances will be integrated with the socio-economic prediction model to serve as a base for the elaboration of scenario, remediation measures and best practice techniques. For that purpose an expert data and information management system will be developed.

**Partners in Austria**

**Organisation**

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**Role**

Partner

<b>Project-No.</b>	509173	<b>Instrument</b>	STREP	<b>Funding from</b>	
<b>Call</b>	FP6-2002-INCO-WBC-1	<b>Duration [months]</b>	36	<b>EU-Frameworkprogramme [EUR]</b>	699.118
<b>Activity Code</b>	INCO-2002-C1.2				
<b>Acronym</b>	RECOAL	<b>Homepage</b>	<a href="http://www.rhizo.at/default.asp?id=751&amp;lid=2">http://www.rhizo.at/default.asp?id=751&amp;lid=2</a>		

**Name**            **Reintegration of coal ash disposal sites and mitigation of pollution in the West Balkan area**

#### **Abstract**

Large areas of the West Balkan region are affected by coal ash deposits. Due to heavy metal contamination of this ash, water resources like groundwater are affected in the surrounding area by polluted effluents. Heavy metals entering the food chain and dust dispersion by wind erosion may negatively affect the health of local people. The aim of this project is to develop and test new and innovative methods for remediation of coal ash deposits and affected water resources. Conventional and new, plant-based technologies will be evaluated for their potential to clean-up contaminated water bodies and effluents from deposits. Immobilisation of heavy metals using various amendments and establishment of a soil cover should reduce the transfer of toxic metals to groundwater and to air, respectively. Crops with low metal uptake rates as well as (inter)cropping systems will be applied to allow safe agriculture and remediate coal ash sites. Landscape planning techniques will be applied for reintegration of disposal sites into agricultural context. The technologies to be used in this project will be tested under laboratory conditions and at field scale subsequently. Up-to-date monitoring techniques will be applied to evaluate the effectiveness, sustainability and cost-efficiency of the methods. Special emphasis will be put on socio-economic aspects related to the problem and its remediation. Local people will be involved throughout the whole project duration. The results will be used to compile decision tools, which will afterwards be published in a handbook, which will be provided to local authorities, stakeholders and problem owners.

#### **Partners in Austria**

##### **Organisation**

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##### **Role**

Coordinator

<b>Project-No.</b>	509205	<b>Instrument</b>	CA	<b>Funding from</b>	
<b>Call</b>	FP6-2002-INCO-WBC-1	<b>Duration [months]</b>	36	<b>EU-Frameworkprogramme [EUR]</b>	597.396
<b>Activity Code</b>	INCO-2002-C1.3				
<b>Acronym</b>	VBPC-RES	<b>Homepage</b>	<a href="http://www.vbpc-res.org/">http://www.vbpc-res.org/</a>		

**Name**            **Virtual Balkan Power Centre for Advance of Renewable Energy Sources in Western Balkans**

#### **Abstract**

Countries in the Western Balkan region have great unexploited potential of renewable energy sources (RES), which could by efficient use significantly contribute to the security of supply within the region and wider. Special care has to be devoted to sound solutions for electricity supply of undeveloped and isolated regions due to war damage. The main objectives of the project were:

- (i) transfer of know-how in RES technology and their implementation for isolated regions,
- (ii) to identify main economic and legislative factors influencing investment decisions in RES including barriers and local specifics, and to identify options to improve penetration of RES, and
- (iii) awareness building and education modes, means and benefits of RES.

The work within the project was organized in 4 work packages (WP):

- The first WP was dealing with the transfer of best practice and best technologies in RES for isolated regions, comprising energy transformation, distribution, operation and control, connection to the local network, energy storage and organizational as also other implementation issues.
- In the second WP the regulatory framework of each WB country has been analyzed to identify barriers and local specifics. This has been archived by exchange of information an establishing incentives for promotion of RES and experiences with harmonisation with EU legislation in EU, AS and WB countries.
- Communication and dissemination with key focus groups (policy makers, utilities and SMEs, higher education system) were the objectives of WP3.

Fore each key focus group of actors important for RES implementation in the region a special dissemination program has been carried out comprising targeted workshops, conferences, public reports and summer schools.

- The fourth WP was devoted to project management issues and to support actions and activities in the first three work packages.

#### **Partners in Austria**

<b>Organisation</b>	<b>Contact</b>	<b>E-Mail-Address</b>	<b>Role</b>
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<b>Project-No.</b>	516732	<b>Instrument</b>	STREP	<b>Funding from</b>	
<b>Call</b>	FP6-2003-INCO-Russia+NIS-1	<b>Duration [months]</b>	36	<b>EU-Frameworkprogramme [EUR]</b>	1.139.960
<b>Activity Code</b>	INCO-2003-D1				
<b>Acronym</b>	NISMIST	<b>Homepage</b>	<a href="http://www.nismist.info/">http://www.nismist.info/</a>		

**Name**            **Management of environmental risks from landfills in seismically active regions in the New Independent States (NIS) of Central Asia**

**Abstract**

The situation of landfills in Central Asia is characterised by poor waste management practices, resource-intensive production, relatively high population density in the southern region of Central Asia and a very limited resources of arable soil and water. This situation is further aggravated by high and active seismicity in the New Independent States (NIS). The NISMIST Project deals with analysis and management of hazardous landfills in seismically active regions. Geographical Information System (GIS) technology will be used for analysis of dynamic response of landfills, risk analysis and risk management of landfills, recommendations for cost-effective remediation measures and result dissemination and creation of environmental awareness. The NISMIST Project will increase the research potential in analysing and managing environmental risks (degradation of soil, water and air) associated with waste deposits (landfills) in seismically active regions. NISMIST will be mutual beneficial to the partners in Europe, Russia and NIS. The Russian and NIS partners will benefit from technique and expertise of the EU partners in dealing with complex environmental systems. The EU partner will benefit from the rich seismic records, the specific landfill problems and the research potential in Central Asia and Russia. The outcome of this project can also be applied to seismically active zones in Europe, e.g. Greece and Turkey.

The key deliverables of the project are:

- (1) GIS-database of landfills in participating NIS countries: Kazakhstan, the Kyrgyz Republic, Uzbekistan, Tajikistan and Turkmenistan;
- (2) Site selection and design criteria for landfills in seismically active regions;
- (3) Environmental risk analyses for at least three landfill sites within the participating NIS countries;
- (4) Recommendations for remediation measures and waste management strategies;
- (5) A series of local dissemination events, a partner programme and a final, international project symposium.

**Partners in Austria**

<b>Organisation</b>	<b>Contact</b>	<b>E-Mail-Adress</b>	<b>Role</b>
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<b>Project-No.</b>	26363	<b>Instrument</b>	SSA	<b>Funding from</b>	
<b>Call</b>	FP6-2002-INCO-Russia+NIS/SSA-4	<b>Duration [months]</b>	24	<b>EU-Frameworkprogramme [EUR]</b>	48.000
<b>Activity Code</b>	INCO-2002-D1				
<b>Acronym</b>	NATASHA	<b>Homepage</b>	N/A		

**Name**            **International Working Group on Natural Hazards in the Tien Shan**

#### **Abstract**

We propose to establish an international and multidisciplinary Working Group on Natural Hazards in the Tien Shan mountains of Central Asia. This initiative follows the recognised need for efficiently linking natural hazards research, integral risk management, and environmental protection via cooperative support activities between European, Russia, and NIS experts. In a "First Stage", we focus on hazards from slope instability. We thereby aim to contribute to sustainable development during the current transition phase in the NIS. Our key objective is to jointly identify, rank, and illustrate high-priority research needs on slope instability, and ensuing risks to the region's population, infrastructure, and environment. A comprehensive review and critical evaluation of existing information will be collated in a regional-scale "Hot Spots & Crucial Gaps" map and catalogue. This activity will actively contribute to disseminating previously unavailable research results between European and Russian/NIS researchers. We further intend to develop from these data project sketches, recommendations, and feasibility assessments for use in future collaborative research activities and joint RTD proposals. Together with the identified "Hot Spots & Crucial Gaps", these project sketches will also be valuable tools for strategically coordinating RTD activities, optimally targeting and allocating of funds and resources, monitoring scientific progress, and augmenting geospatial data on natural hazards in the region. Regional "supply and demand" will be summarised in a project portfolio on former, present, and planned hazard- and risk-related projects in the Tien Shan. Finally, we will host coordinated and cost-efficient activities to strengthen awareness, skills, and capacity building and knowledge dissemination on slope-instability hazards for European, Russian, and NIS young researchers and students, in an International Field Workshop, Summer School, and a NATASHA Exhibition.

#### **Partners in Austria**

<b>Organisation</b>	<b>Contact</b>	<b>E-Mail-Adress</b>	<b>Role</b>
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<b>Project-No.</b>	15110	<b>Instrument</b>	SSA	<b>Funding from</b>	
<b>Call</b>	FP6-2002-INCO-Russia+NIS/SSA-4	<b>Duration [months]</b>	24	<b>EU-Frameworkprogramme [EUR]</b>	203.000
<b>Activity Code</b>	INCO-2002-D1				
<b>Acronym</b>	IRIS	<b>Homepage</b>	<a href="http://www.iris.uni-jena.de/sites/contact.html">http://www.iris.uni-jena.de/sites/contact.html</a>		

**Name**            **Irkutsk Regional Information System for Environmental Protection**

**Abstract**

The proposed project will assess the current status and dynamics of the Irkutsk Region's (South-eastern Siberia, watershed area of Lake Baikal) forestry environment, influenced by man-made changes and anthropogenic impact arising from pollution sources and other negative anthropogenic drivers located in the region and in adjacent areas. It will investigate the responsiveness and vulnerability of forestry environment within the Region under different scenarios of industrial development and nature-preserving measures. The output of the project is the adaptation of the existing GIS layers, completion and transfer into operative testing and exploitation a simplified version of the Regional Information System which serve as a prototype for other regions of Northern Eurasia. The proposed project also includes the preparation of the detailed prospective studies and explorations aiming at the development of the efficient simulation and management tool for practical use by regional governance and nature-protection service(s) for the management of risks associated with man-made changes and anthropogenic stress affecting the forestry environment of the region under investigation, as well as other regions of Northern Eurasia.

**Partners in Austria**

**Organisation**

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**Role**

Partner

<b>Project-No.</b>	13427	<b>Instrument</b>	CA	<b>Funding from</b>	
<b>Call</b>	FP6-2003-INCO-Russia+NIS-1	<b>Duration [months]</b>	36	<b>EU-Frameworkprogramme [EUR]</b>	499.000
<b>Activity Code</b>	INCO-2003-D3				
<b>Acronym</b>	Enviro-RISKS	<b>Homepage</b>	N/A		

**Name**            **Man-induced Environmental Risks: Monitoring, Management and Remediation of Man-made Changes in Siberia**

#### **Abstract**

Siberia environment has been subjected to serious man-made transformations during last 50 years. Current regional level environmental risks are: direct damages to environment caused by accidents in process of petroleum/gas production and transporting including their influence on water, soil, vegetation and animals; caused by deforestation (cutting and forest fires) variations in Siberian rivers runoffs and wetland regimes; direct and indirect influence of forest fires, flambeau lights and losses of gas and petroleum during their transportation on regional atmosphere composition; deposition of hazardous species leading to risks to soil, water and consequently to risks in the food chain. These regional problems are typical for number of NIS and some European countries, whose territory are crossed by pipelines and/or are used for petroleum production. Strategic objective of the project is to facilitate elaboration of solid scientific background and understanding of man-made associated environmental risks, their influence on all aspects of regional environment and optimal ways for it remediation by means of coordinated initiatives of a range of relevant RTD projects as well as to achieve improved integration of the European research giving the projects additional synergy in current and future activities and potential for practical applications. Scientific background allowing us to reach this objective is formed by a number of different levels RTD projects devoted to near all aspects of the theme but in virtue of synergy lack not resulting in improvement of regional environmental situation. The set comprise coordinated/performed by Partners EC funded thematic international projects , national projects supported by Siberian Branch of RAS, RAS and Russian Foundation for Basic Research and projects performed by NIS Partners under contracts with regional/local administrations and petroleum/gas producing and transporting enterprises/companies.

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## **ERA-NET: Supporting cooperation & coordination of national or regional research programmes**

**(Projects with Austrian participation)**

<b>Project-No.</b>	517836	<b>Instrument</b>	CA	<b>Funding from</b>	
<b>Call</b>	FP6-2002-ERA-Net/1/CA-SSA	<b>Duration [months]</b>	48	<b>EU-Frameworkprogramme [EUR]</b>	2.837.440
<b>Activity Code</b>	Environment and Energy				
<b>Acronym</b>	BIODIVERSA	<b>Homepage</b>	<a href="http://www.eurobiodiversa.org/">http://www.eurobiodiversa.org/</a>		

**Name**            **An ERA-Net in Biodiversity Research (BiodivERsA)**

#### **Abstract**

BiodivERSA is an ERA-Net project involving 15 countries and 19 major research funding agencies in Europe with significant research funding in the field of terrestrial, freshwater and marine biodiversity. Most ERA-Net members are represented on other forums that discuss and recommend requirements for European biodiversity research, including the Convention for Biological Diversity (CBD-SBSTTA), Diversitas, the European Platform for Biodiversity Research Strategy (EPBRS) and the European Science Foundation (ESF).

Recommendations from these forums are often made without a formal mechanism to ensure connection with the strategies, priorities and budgets of national research funding agencies. The aim of BiodivERsA is to contribute to setting up such a mechanism and its objective for the period 2004-2008 is to achieve an efficient trans-national research co-operation in biodiversity research. With the aim of contributing to the implementation of the EU Biodiversity Strategy, BiodivERsA will allow funding agencies to collate existing activities, to compare future strategies and recommendations of consultative bodies and systematically to explore opportunities for future collaboration. BiodivERsA will also contribute to better coherence and increased synergies between national programmes for cooperation with developing countries in the field of biodiversity research.

In order to achieve these aims, BiodivERsA will proceed through various stages:

- inventory, description and classification of biodiversity research programmes and research funding programmes of ERA-Net members;
- information gathering and linkage of ERA-Net members' funding programmes with developing countries;
- identification of best practices to be compared, shared and implemented among participants;
- identification of existing opportunities for cooperation;
- identification of administrative, legal and technical barriers to cooperation; and
- organisation of transnational calls for biodiversity research.

#### **Partners in Austria**

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Partner

<b>Project-No.</b>	26058	<b>Instrument</b>	CA	<b>Funding from</b>	
<b>Call</b>	FP6-2002-ERA-Net/1/CA-SSA	<b>Duration [months]</b>	48	<b>EU-Frameworkprogramme [EUR]</b>	2.765.999
<b>Activity Code</b>	Environment and Energy				
<b>Acronym</b>	CIRCLE	<b>Homepage</b>	<a href="http://www.circle-era.net/">http://www.circle-era.net/</a>		

**Name**                **Climate Impact Research Co-ordination for a Larger Europe**

#### **Abstract**

Climate change is increasingly seen as one of the greatest issues facing the world in the 21st century, and Europe is taking a leading role in responding to its challenges. Whatever the success of mitigating climate change may be, certain impacts are unavoidable and European countries will need to adapt to those impacts. Their adaptation response must be informed by a coherent body of research and it is CIRCLE's prime objective to contribute to such efforts by aligning national research programmes using a complete application of the ERA-Net principles. As an ERA-Net SSA of partners from 7 countries, CIRCLE already established a sound basis for co-operation, an information base for national programme scientific content and management structures and through this preparatory work paved the way towards this CIRCLE CA with 17 countries taking part in it and remaining open for additional regional and national pertinent programmes. The means of integration comprise four serial activities leading to an in-depth integration. The partners aim to LEARN about each others programmes, will PLAN how to address specific issues (e.g. legal and financial constraints and evaluation procedures) and then will start to CONNECT their research programmes by aligning their research agendas and management procedures in order to FULFIL an in-depth integration by providing options for collaborative research (four options, including a geographical return principle). Four cross-cutting activities will support this process. The coordinator will LEAD the action; the partners will address how to CONTINUE the integration beyond the life of the CA. The programmes will be enabled to GROUP on a geo-climatic/socioeconomic scale (e.g. Mediterranean countries, Nordic countries, Continental central/eastern Europe, Alpine/Mountainous countries and Atlantic coastal countries) to address specific regional transboundary impacts. Knowledge will be SPREAD to stakeholders by designed interaction processes.

#### **Partners in Austria**

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<b>Call</b>	FP6-2002-ERA-Net/1/CA-SSA	<b>Duration [months]</b>	48	<b>EU-Frameworkprogramme [EUR]</b>	3.000.000
<b>Activity Code</b>	Environment and Energy / International Cooperation				
<b>Acronym</b>	CRUE	<b>Homepage</b>	<a href="http://www.crue-eranet.net/">http://www.crue-eranet.net/</a>		

**Name**                **Coordination de la recherche sur la gestion des inondations financée dans l'UE**

**Abstract**

The CRUE ERA-NET will introduce structure within this area of European research through an inter-comparison of the process of research programme formulation, implementation and management. This will lead to the consolidation and promotion of best practice and the identification of gaps and opportunities for international collaboration on future programme content. CRUE will also address the pressing need to improve the dissemination of existing research results to derive public benefit from past investment in the generation of knowledge and understanding.

An early action in CRUE will be to encourage participation in the Network from other Member States which commission research on flood risk management. The Partners will launch two joint calls for research (one early in the project) as a practical demonstration of collaboration. The topic area for this structuring activity lies within the Global Change and Ecosystems priority area of FP6 and covers one facet of achieving Sustainable Development. Structuring the European research on this topic will facilitate technologies and strategies for sustainable flood mitigation and defence, recognising the complex interaction between natural bio-physical systems and socio-economic systems, to support spatial and policy planning in the context of global change and societal advance.

**Project Outcomes:**

Contribution to improved standards of FRM

- Linking Policy and Research
- European added value
- Contribution to international activities

Contribution to policy development

- Contribution to national and regional policies

Improved exploitation and dissemination of FRM research

Positive economic impact – better decisions & savings

Improvements to national and regional research programmes

**Partners in Austria**

**Organisation**

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<b>Project-No.</b>	517842	<b>Instrument</b>	CA	<b>Funding from</b>	
<b>Call</b>	FP6-2002-ERA-Net/1/CA-SSA	<b>Duration [months]</b>	48	<b>EU-Frameworkprogramme [EUR]</b>	2.484.993
<b>Activity Code</b>	Environment and Energy				
<b>Acronym</b>	EUROPOLAR	<b>Homepage</b>	<a href="http://www.europolar.org/">http://www.europolar.org/</a>		

**Name**            **The European Polar Consortium: Strategic Coordination and Networking of European Polar RTD Programmes**

**Abstract**

EUROPOLAR ERA-NET is a consortium of 25 Ministries, Funding Agencies and National Polar RTD Authorities from 19 European countries with a combined critical mass of Polar Programmes and Infrastructures of over 500 Million Euros per annum. It is the most significant attempt to coordinate the European management of Polar RTD programmes ever attempted. EUROPOLAR ERA-NET will exert a massive and positive impact on this domain and lead to long-term durable partnerships within Europe and Internationally. EUROPOLAR ERA-NET will encourage and support the closer relationship of National Polar RTD programme managers from Europe and the Russian Federation, fostering cooperation and leading to joint programme activities. EUROPOLAR ERA-NET will also deepen and strengthen the interactions between countries with large Polar RTD Programmes and nations with evolving Polar Programmes in central and south-eastern Europe, encouraging exchange of experiences and best practise on management and financing of programmes and infrastructures. The presence of key European and international organizations within EUROPOLAR ERA-NET will open up a vast network of human and material capital. The structuring and coordination of European Trans-national elements will enable the construction of mechanisms to mobilise joint funding flows and the reciprocal access to Polar Research Infrastructures. The long-term goal of the European Polar Consortium is the development of a 'European Polar Entity' which will be established in the final stages of the EUROPOLAR ERA-NET through dialogue at a political level and will enable Europe to maximise and direct its critical mass at the Global level.

**Partners in Austria**

**Organisation**

FWF Der Wissenschaftsfonds

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<b>Call</b>	FP6-2002-ERA-Net/1/CA-SSA	<b>Duration [months]</b>	60	<b>EU-Frameworkprogramme [EUR]</b>	3.000.002
<b>Activity Code</b>	Environment and Energy				
<b>Acronym</b>	IWRM.Net-CA	<b>Homepage</b>	<a href="http://www.iwrm-net.org/">http://www.iwrm-net.org/</a>		

**Name**                **Towards a European-wide exchange Network for improving dissemination of Integrated Water Resources Management research outcomes**

### Abstract

Integrated Water Resources Management (IWRM) is among today's core environmental policies in all European countries when transposing the Water Framework Directive (WFD). An analysis of 60 research programmes (ERA-Net SSA n° 003223), carried out in 13 EU countries, shows that, since 2000, transposing the Directive has considerably changed the content of national or regional government-funded research programmes. Identifying IWRM issues/research needs in the short and long term, improving social understanding about research, promoting interdisciplinary research works, constitute some of the main working axes of IWRM.Net network, in order to help the programme managers to enhance their practices. The 18+ partners, from 16 European MS, agree on a shared Vision of what should be IWRM.Net by 2010:

- (1) THE source for knowledge about IWRM-research being undertaken in Europe, with a focus on the WFD;
- (2) A forum for prospective and co-ordination of research needs and programmes on related issues in different countries, including accession states and EU neighbours;
- (3) The facilitator between research and water policy makers and managers to bridge the communication gap;
- (4) A facilitator for bringing together researchers and funders from different countries to work on joint projects;
- (5) A forum for exchanging best practices on administrating research programmes across Europe.

Activities will include a Knowledge Management tool (WP1), analysis of research needs (short-term WP2 and long-term WP3), development of joint and trans-national activities (WP4), intensive linking with related initiatives and actors (WP5), and dissemination of outcomes to the stakeholders (WP6).

The duration of the project is 5 years; workshops will be organised for production, and 3 conferences will be scheduled for dissemination of results to potential users. The partnership will be open to new programme managers after 3 years. Stakeholders will be closely associated to the works of the network.

### Partners in Austria

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<b>Call</b>	FP6-2002-ERA-Net/1/CA-SSA	<b>Duration [months]</b>	48	<b>EU-Frameworkprogramme [EUR]</b>	2.756.089
<b>Activity Code</b>	Environment and Energy				
<b>Acronym</b>	SKEP	<b>Homepage</b>	<a href="http://www.skep-era.net">http://www.skep-era.net</a>		

**Name**                    **Scientific Knowledge for Environmental Protection – Network of Funding Agencies**

**Abstract**

Developing effective policies and regulation to protect the environment is a fundamental responsibility of all European states. Historically, countries have developed the science necessary to develop and implement environmental protection policy in isolation. This allows great potential for duplication. The SKEP ERA-NET will bring together the key funders of the national research programmes to generate this knowledge. By taking a forward-looking, strategic overview of the research needs of policy and regulation for environmental protection, SKEP will enable effective deployment of research resources across Europe to develop innovative research and meet the EU's environmental challenges. The creation of a lasting structure for research co-ordination and co-operation between the 14 SKEP partners will provide for effective alignment of national programmes. Sharing good practice and innovation for research management and dissemination will enhance the value of research in meeting the needs of policy makers and those who implement regulation. This will be achieved through an evolving programme of work over 4 years to enable the systematic exchange of information on research programmes and priorities; the development and sharing of good practice in the management and dissemination of research; the identification and analysis of common strategic issues; and the consequent development and implementation of joint innovative research activities;

SKEP success measures:

- Joint calls for research to support innovation in 2 areas crucial to environmental protection policy-making;
- Delivery of common understanding of the current and future research priorities necessary to deliver effective environmental protection;
- More efficient use of research funding in this area;
- Better value for money and greater potential for innovation;
- Improved management and dissemination of research;
- Improved environmental protection capability in Europe.

**Partners in Austria**

**Organisation**

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Partner

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<b>Call</b>	FP6-2002-ERA-Net/1/CA-SSA	<b>Duration [months]</b>	36	<b>EU-Frameworkprogramme [EUR]</b>	1.046.032
<b>Activity Code</b>	Environment and Energy				
<b>Acronym</b>	SNOWMAN	<b>Homepage</b>	<a href="http://www.snowman-era.net">http://www.snowman-era.net</a>		

**Name**                    **Sustainable management of soil and groundwater under the pressure of soil pollution and soil contamination**

#### **Abstract**

Aiming at solution and prevention of actual and future environmental problems, EU policy resulted in many Directives concerning water and soil. Moreover, the Commission of the European Communities composed a paper Toward a Thematic Strategy for Soil Protection and set up a tight time schedule. Despite of above mentioned legislative efforts an effective EU-wide approach to the problem of site remediation and groundwater contamination is hindered by a number of problems described by the CLARINET Working Group on Co-ordination of RTD on an European level These are the starting points of SNOWMAN-Era-Net:

What do we HAVE? The consortium will produce a sound overview on programmes and their contents and management in the field specified. A database containing all relevant information will be produced and analysed.

What do we WANT? A Vision Paper will define the goal of European research activities in this specific field of environmental research.

How can we GET co-operation NOW? Specification of next steps, short- and medium-term, preparing ground in order to reach the overall goal of ERANET, i.e. to implement and conduct a research programme on bi-/multilateral level throughout Europe.

Suitable tools (like uniform evaluation criteria etc.) will be developed in Working group meetings and collected within a summary report. Knowledge dissemination will be supported by a close linkage with the EUGRIS project. On this portal, all findings produced within SNOWMAN will be published and made available to a wider community. On interpersonal level, networking with the European Soil Policy Working Group or Cost activities will be maintained.

#### **Partners in Austria**

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<b>Project-No.</b>	036268	<b>Instrument</b>	CA	<b>Funding from</b>	
<b>Call</b>	FP6-2002-ERA-Net/1/CA-SSA	<b>Duration [months]</b>	48	<b>EU-Frameworkprogramme [EUR]</b>	2.752.860
<b>Activity Code</b>	Environment and Energy				
<b>Acronym</b>	SPLASH	<b>Homepage</b>	<a href="http://www.splash-era.net">http://www.splash-era.net</a>		

**Name** **EUROPEAN WATER INITIATIVE - ERA-NET: Coordination of Member State research programmes in water science and technology for the developing world**

**Abstract**

SPLASH is the name of the European Union Water Initiative Research Area Network (EUWI ERA-net). It is a consortium of 16 ministries, funding agencies and national research and technological development authorities from 11 European countries. Effective water research can play an important role in supporting developing nations to meet the challenge of providing poor people with access to safe water supplies and improved sanitation. Previous research in the water sector has generally been programmed and managed in isolation by different donors such that overlap and duplication has occurred, and specific gaps and issues may not have been addressed. SPLASH is working towards making the concept of a 'European Research Area' a reality by bringing together appropriate research partner programmes from across Europe in a coherent and coordinated way. Combining national research programmes in this way means that more ambitious activities can be tackled than are possible when programmes are working independently of each other. The project focus is Africa and the Mekong region.

Within the context of water and sanitation research, SPLASH will:

- coordinate between existing programmes to minimize duplication and identify gaps
- ensure that good research management practice is known and used
- improve knowledge sharing between researchers and practitioners to speed up the transfer of research findings into policy and practice
- agree a research agenda and jointly funded activities which can benefit from a transnational approach, with European partners working together.

**Partners in Austria**

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## **SME: Horizontal research activities involving SMEs**

**(Projects with Austrian participation)**

<b>Project-No.</b>	32719	<b>Instrument</b>	SME	<b>Funding from</b>	
<b>Call</b>	FP6-2004-SME-COOP	<b>Duration [months]</b>	24	<b>EU-Frameworkprogramme [EUR]</b>	1.355.130
<b>Activity Code</b>	8 (Environment / Waste management)				
<b>Acronym</b>	CHEM-FREE	<b>Homepage</b>	N/A		

**Name**            **Development of a chemical-free water treatment system through integrating UV-C, ultra sound and fibre filters**

#### **Abstract**

The CHEM-FREE project proposes development of a process control instrument to integrate and optimise three well known physical water treatment devices: fibre filter, ultrasound and UV-C. Both lab-scale and pilot-scale research and validation will be performed to combine, arrange and steer efficiency of physical and biological processes. The resulting integrated technology must combine the economic and ecological advantages of all the individual devices to achieve targeted application in specific water qualities without the use of chemicals. Lab-scale experiments regarding microbiological decontamination and removal of algae will result in better understanding of the principal removal mechanisms to decrease the microbiological contamination for the applications using the individual devices and their combinations to determine the optimal operational parameters. The applied experiments include different raw water qualities and requirements for the treated water. Four types of field-scale applications will be investigated within the project: closed-loop water systems, crop irrigation, fish farming and groundwater recharge. The legal regulations, technical standards, market and operational requirements of the potential users will be analysed for integration into the prototype development process. The main output of the CHEM-FREE Project will be a prototype and technical specification as basis for patent registration for a process control instrument allowing integration and optimisation of the three devices as an integral unit. The optimal integration and control of fibre filters, ultrasound devices, and UV-C sets will result in chemical-free water treatment enabling ecologically prevention of algae, prevention of biofilm growth on walls, in pipelines, on fittings and in containers and completely new solutions for sensitive water treatment systems where chemicals are an unsatisfying solution like drinking water production from surface waters, groundwater recharge, etc.

#### **Partners in Austria**

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<b>Project-No.</b>	32423	<b>Instrument</b>	SME	<b>Funding from</b>	
<b>Call</b>	FP6-2004-SME-COOP	<b>Duration [months]</b>	24	<b>EU-Frameworkprogramme [EUR]</b>	867.411
<b>Activity Code</b>	8 (Environment / Waste management)				
<b>Acronym</b>	Green Concrete	<b>Homepage</b>	<a href="http://www.greenconcrete.eu">http://www.greenconcrete.eu</a>		

**Name**            **Development of gravel turf consisting of recycled construction materials as an economical and ecological method for permeable and absorptive surface consolidation most suitable for parking areas.**

### Abstract

The consortium of the Green Concrete Project consists of 9 SMEs and 3 RTDs from 3 different EU member states and the association of the Austrian construction material recycling sector. The main objective of the Green Concrete Project is to obtain extensive knowledge of gravel turf, consisting of recycled construction materials or natural gravel from quarries, as a new permeable and planted method for surface consolidation of parking and low traffic areas. Gravel turf is a biosphere, allows natural water circulation, infiltration and evaporation, and preserves natural soil functions as buffering of harmful substances. It improves the microclimate and thus the quality of life in urban areas. By absorbing precipitation gravel turf relieves the burden on the sewage system, prevents flood damages and fosters the renewal of groundwater in urban areas. Therefore gravel turf contributes to main objectives of the EU. Extensive investigations - going beyond the state of the art - will be carried out to prove the suitability of gravel turf as a cost-saving and ecological alternative to the common practice of sealing surfaces by means of asphalt or concrete. For the first time ever recycled construction materials will be tested for their suitability for the usage as gravel turf; all relevant and also often interacting properties of gravel turf will be ascertained in the Green Concrete Project, e.g. material combination, layer construction, load bearing capacity, structural stability, evenness, infiltration rate, water permeability, water absorption capacity, seeping water properties, applicability and suitability of plants and microclimatic effects.

The outcome of the Green Concrete Project is the product gravel turf a scientifically save, sound and mature technology for surface consolidation of parking and low traffic areas. The product gravel turf opens a new market to the participating SMEs and thus strengthens their competitiveness.

### Partners in Austria

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Österreichischer Baustoff Recycling Verband (BRV)			Partner

<b>Project-No.</b>	33049	<b>Instrument</b>	SME	<b>Funding from</b>	
<b>Call</b>	FP6-2004-SME-COOP	<b>Duration [months]</b>	24	<b>EU-Frameworkprogramme [EUR]</b>	999.850
<b>Activity Code</b>	8 (Environment / Waste management)				
<b>Acronym</b>	MESH	<b>Homepage</b>	<a href="http://www.meshfilter.eu/">http://www.meshfilter.eu/</a>		

**Name**            **Integrated Wastewater Treatment Process using Mesh Filter Modules for Direct Activated Sludge Separation**

**Abstract**

The challenges of removing contaminants from wastewater with high reliability and efficiency are ever growing, such offering good opportunities for new and advanced technologies.

One such innovative wastewater treatment system is the membrane bioreactor, an activated sludge process, where the secondary settling tank is substituted by a membrane filtration unit. The main advantages are high sludge concentrations and an excellent effluent quality. Membrane bioreactors are a highly attractive system because of their small footprint or where stringent standards have to be met, e.g. for discharge in bathing water or for water reuse.

However, membrane bioreactors still need further improvement for a more wide spread application. The main hindrances are high costs for membrane modules and membrane replacement as well as high operation costs due to an increased energy demand.

The innovation of the project MESH is to overcome these drawbacks by the substitution of membranes by a cheaper filtration technique, offering higher flux rates at lower filter pressures.

As activated sludge appears in form of flocs, a filter material with larger pores (mesh material) can be used to separate activated sludge from treated wastewater. The retention of sludge flocs leads to the formation of a secondary layer on the mesh surface, which serves as the actual filter membrane.

By this means, even particles smaller than the mesh size are retained. Another principal problem of membranes is fouling. Persistent deposits can only be removed by intensive periodical cleaning with chemical agents. In the MESH system, the secondary layer is periodically removed and substituted by a fresh layer. Thus, the problem of fouling can be largely avoided and less frequent and intensive cleaning is necessary.

To summarize, MESH is aiming at a wastewater treatment process combining high effluent quality and plant reliability with low investments and low operational costs.

**Partners in Austria**

**Organisation**

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Coordinator

Partner

Partner

<b>Project-No.</b>	33130	<b>Instrument</b>	SME	<b>Funding from</b>	
<b>Call</b>	FP6-2004-SME-COOP	<b>Duration [months]</b>	24	<b>EU-Frameworkprogramme [EUR]</b>	1.143.000
<b>Activity Code</b>	8 (Environment / Waste management)				
<b>Acronym</b>	NIREC	<b>Homepage</b>	<a href="http://www.ifa-tulln.ac.at/index.php?lang=1&amp;f=text&amp;nID=1326&amp;sna=1030&amp;show=">http://www.ifa-tulln.ac.at/index.php?lang=1&amp;f=text&amp;nID=1326&amp;sna=1030&amp;show=</a>		

**Name**            **EFFICIENT REMOVAL and RECYCLING of NITROGEN from ORGANIC WASTE as FERTILISER**

#### **Abstract**

The objective of the project NIREC is to develop a new sustainable technology for nutrient recovery and recycling from anaerobic digesters, which concurrently enhance the anaerobic digestion process. It also aims at the maximum valorization of all residuals and to convert them into a marketable product, with standard quality specifications. It will develop, combine, scale up and test the different components and techniques of the processes to obtain an integrated solution targeting for a zero emission process.

The work program contains 8 work packages, each addressing the main technological aspect. It starts with the pre-treatment of the substrate devoted for anaerobic digestion; another major activity is the development of a technical solution allowing stripping the ammonium directly in front or out of the anaerobic digester and it deals with the emerging odor emission from a waste treatment plant. Valuable compounds will be recovered from the digested residues, remaining solids are composted and the liquid fraction is recycled. In such a way this process targets for a zero emission solution. It includes, a legal/economic work package dedicated to strengthen the acceptability of the developed process, and to fortify the potential end-users' position.

The developed technical solutions will be tested at the pilot scale integrating all aspects investigated. After start-up, a comprehensive evaluation with the pilot unit will be performed at a SME. The project has an important process dissemination and exploitation component including a strategy for market introduction assured by legal and economic assessment and evaluation of the results. The cooperation between 4 SME and 1 end-user is beneficial for all SME partners involved. Moreover 5 RDT performers contribute, all working on a European level.

#### **Partners in Austria**

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