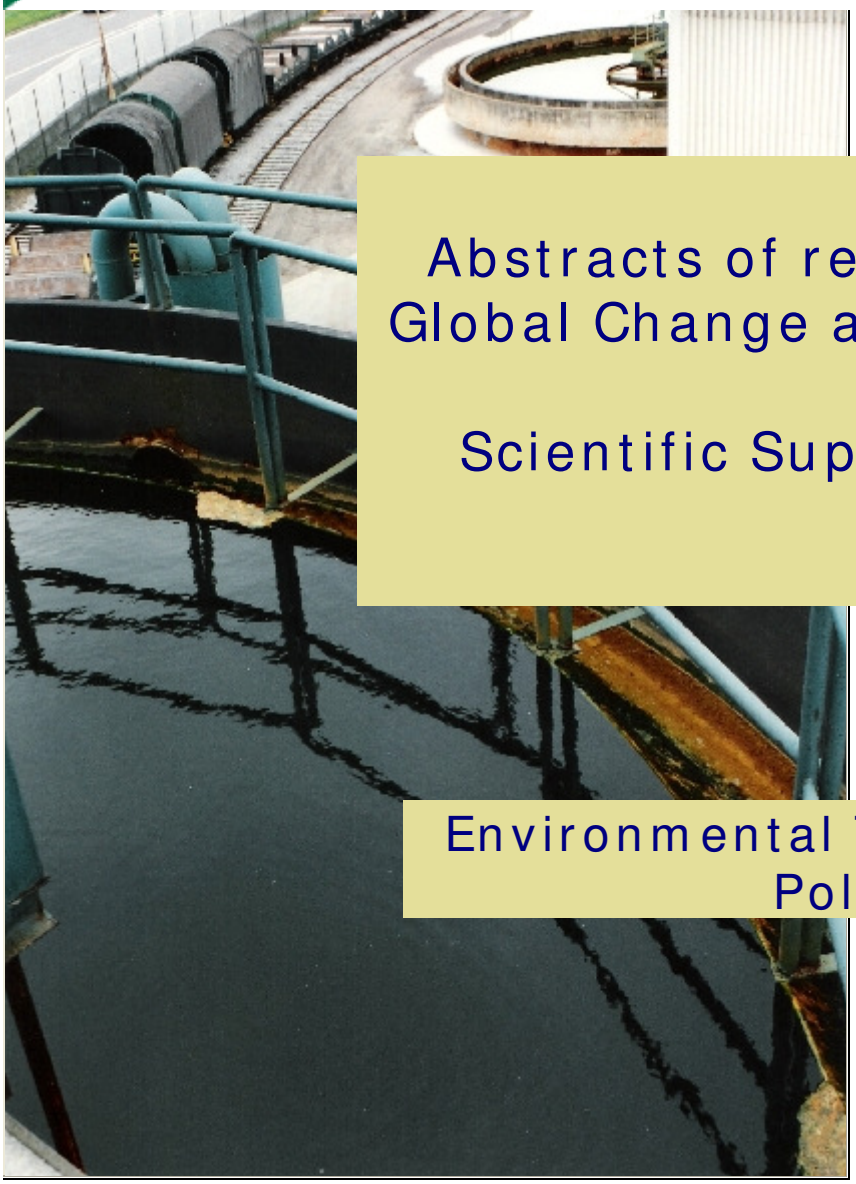
EUROPEAN COMMISSION

Community research



Abstracts of related contracts Global Change and Ecosystems (calls 1 - 2) and Scientific Support to Policies (calls 1 - 2)

Environmental Technologies and Pollution Prevention

30/08/2005

GLOBAL CHANGE AND ECOSYSTEMS

SIXTH FRAMEWORK PROGRAMME

Global change and ecosystems

EuroDemo

3985

Project URL http://www.eurodemo.info/

Title:	European Platform for Demonstration of Efficient Soil and Groundwater Remediation		
Area:	Water cycle, including soil-related aspects - Soil-groundwater protection and rehabilitation		
Instrument:	Co-ordination Action (CA)		
Project total cost:	988.899 €	Contract start date:	1/01/2005
EU contribution:	988.899 €	Duration:	36 months
Organisation:	Umweltbundesamt GmbH	Wien - Austria	
Co-ordinator:	Mr. Dietmar Müller		

Abstract

EURODEMO aims to be the principal co-ordination activity concerning technology demonstration in the field of soil and groundwater management in the European Union. EURODEMO aims to achieve more efficiency with regard to funding targeted to technology demonstration, to improve the access to results from demonstration projects and to establish harmonised protocols for the documentation of demonstration results and the verification of demonstrated technology. Key activities will include (i) the co-ordination of scattered co-existing European funding programmes, (ii) the optimisation of demonstration funding by avoiding duplications and overlaps, (iii) the establishment of harmonised protocols for the documentation of demonstration results and for verification of technology efficiency and performance. Key clients benefiting from EURODEMO will be " funding organisations who can target their funds more efficiently by avoiding overlaps, by receiving reliable information on (European/global) demonstration demands, by establishing joint funding programmes, " potential technology demonstrators who can benefit from the better overview of funding opportunities, and " end users by having more confidence in demonstration results due to harmonised verification of and by having better access to demonstration results.

Partners

Nb	Organisation	Town	Country
1	Umweltbundesamt GmbH	Wien	Austria
2	Contaminated Land: Applications in Real environments	London	United Kingdom
3	Bureau de Recherches Geologiques et Minieres	Paris	France
4	exSite Research Limited	Hilliam, Leeds	United Kingdom
5	Nederlandse Organisatie voor Toegepast Natuurwetenschappelijk Onderzoek	Delft	Netherlands
6	Openbare Afvalstoffenmaatschappij voor het Vlaamse Gewest	Mechelen	Belgium
7	r3 environmental technology Limited	Reading	United Kingdom
8	Land Quality Management Ltd	Nottingham	United Kingdom
9	Institut pro udrzitelný rozvoj sídel o.s. Institute for Sustainable Development of Settlements	Praha 10	Czech Republic
10	Universität Stuttgart	Stuttgart	Germany
11	Fachhochschule Nordostniedersachsen	Lüneburg	Germany
12	Latvijas Universitate	Riga	Latvia
13	Bundesministerium für Land und Forstwirtschaft, Umwelt und Wasserwirtschaft	Wien	Austria
14	Institute for Ecology of Industrial Areas	Katowice	Poland
15	AGENCE DE L'ENVIRONNEMENT ET DE LA MAITRISE DE L'ENERGIE'	Angers	France
16	DEKONTA, a.s.	Usti Nad Labem	Czech Republic
17	Lietuvos Geologijos Tarnyba	Vilnius	Lithuania
18	Univerza v Ljubljani	Ljubljana	Slovenia
19	ALMA MATER STUDIORUM - Università di Bologna	Bologna	Italy
20	BUDAPESTI MUSZAKI ÉS GAZDASÁGTUDOMÁNYI EGYETEM (Budapest University of Technology and Economics)	Budapest	Hungary
21	Consorzio Venezia Ricerche	Venezia Marghera	Italy
22	Consiglio Nazionale delle Ricerche	Rome	Italy
23	Umweltbundesamt	Berlin	Germany
24	Stichting Kennisontwikkeling Kennisoverdracht Bodem	Gouda	Netherlands
25	MINISTERSTVO ZIVOTNÍHO PROSTREDÍ CESKÉ REPUBLIKY (Ministry of the Environment of the Czech Republic)	Prague 10	Czech Republic

Global change and ecosystems

BIOTOOL

3998

Project URL http://www.gbf.de/biotools/

Title:	Biological procedures for diagnosing the status and predicting evolution of polluted environments		
Area:	Water cycle, including soil-related aspects - Soil-groundwater protection and rehabilitation		
Instrument:	Specific Targeted Research Project (STREP)		
Project total cost:	2.665.000 €	Contract start date:	1/09/2004
EU contribution:	1.800.000 €	Duration:	36 months
Organisation:	Gesellschaft für Biotechnologische Forschung mbH	Braunschweig - Germany	
Co-ordinator:	Dr. Dietmar Helmut Pieper		

Abstract

The objective of BIOTOOL is the generation and validation of novel conceptual and material instruments, rooted in biological processes, for diagnosing soil status and predicting evolution of contaminated soil and groundwater. The focus is on the assessment and evaluation of natural attenuation processes. This will require benchmarked monitoring tools and warning criteria to implement natural attenuation as the key groundwater and soil remediation strategy in Europe. It will be materialized through the application of a suite of state-of-the-art genomic, proteomic and analytical technologies to environmental samples and sites themselves. We will exploit the translocation of indicator chemicals from below ground into above-ground vegetation as a cheap and rapid monitoring tool for subsurface contamination. Diagnosis of the biological status and evolution models for polluted environments will be achieved through [i] the design and utilization of DNA and specifically DNA-array technology for examining the catabolic potential of any given particulate sample and [ii] the identification of protein biomarkers as descriptors of soil and groundwater quality and biological attenuation clocks. The progress in microbial community functional genomics and proteomics will be employed to gain a mechanistic understanding of prevailing stresses, global responses to chemical insults, plant/microbe interactions and microbial community adaptations that determine microbial-driven soil and groundwater processes. This will add a considerable predictive power to the genomic and proteomic approaches mentioned above. Determining the links between environmental factors and expression of degradation abilities will be crucial for strategies aiming at an optimal expression of the catalytic power of the indigenous microbial community. The robustness of diagnostic instruments for future normative applications will be validated in microcosms and used for ass

Partners

Nb	Organisation	Town	Country
1	Gesellschaft für Biotechnologische Forschung mbH	Braunschweig	Germany
2	Consejo Superior de Investigaciones Cientificas	Madrid	Spain
3	Technical University of Denmak	Kongens Lyngby	Denmark
4	Ecole Polytechnique Federale de Lausanne	Lausanne	Switzerland
5	Institute of Microbiology, AS CR	Prague 4	Czech Republic
6	National Environmental Research Institute	Roskilde	Denmark
7	UFZ - Umweltforschungszentrum Leipzig - Halle GmbH	Leipzig	Germany
8	KAP Ltd	Prague 7	Czech Republic
9	Bionostra, S.L.	Tres Cantos, (Madrid)	Spain

Title:	SEDiment bioBARriers for Chlorinated Aliphatic Hydrocarbons in groundwater reaching surface water		
Area:	Water cycle, including soil-related aspects - Soil-groundwater protection and rehabilitation		
Instrument:	Specific Targeted Research Project (STREP)		
Project total cost:	1.679.758 €	Contract start date:	1/01/2005
EU contribution:	1.098.691 €	Duration:	24 months
Organisation:	Vlaamse Instelling voor Technologisch Onderzoek	Mol - Belgium	
Co-ordinator:	Dr. Winnie Dejonghe		

Abstract

Polluted groundwater in urban and industrial areas often represents a continuous source of (diffuse) contamination of surface waters. However, the fate of infiltrating groundwater pollutants might be influenced by the sediment in eutrophic water bodies. Such sediments form an interface between groundwater and surface water and possesses characteristic biological and physico-chemical degradation properties. Knowledge on natural attenuation of passing pollutants and the potential to stimulate and sustain occurring degradation processes are however scarce or non-existent. This is especially due to the lack of appropriate monitoring devices and tools to measure in situ mass balances of pollutants and reactants. In the SEDBARCAH project, we want to investigate the boundaries of the sediment zone as a barrier against the infiltration of chlorinated aliphatic hydrocarbons (CAH) into surface water and how we can turn this zone into a sustainable and efficient (stimulated) biobarrier technology for protection of surface waters from groundwater contamination. We will (i) determine the role of the microbial community present in sediments in the biodegradation of groundwater pollutants infiltrating a river bed; (ii) explore the boundary conditions and the possibility to increase and sustain removal activities in the sediment zone and (iii) select tools to follow such removal activities in situ. Therefore, a thorough investigation both in the field and in the laboratory of the physico-chemical and microbial processes occurring in these sediments will be performed and coupled to the CAH-degradation potential present in the sediment interface of two selected contaminated areas. In addition, methodologies to increase this degradation will be examined. The final goal of SEDBARCAH is to investigate the potentials of these (stimulated) sediment biobarriers as a groundwater remediation technology and a surface water pollution and risk prevention technology.

Partners

Nb	Organisation	Town	Country
1	Vlaamse Instelling voor Technologisch Onderzoek	Mol	Belgium
2	Katholieke Universiteit Leuven	Leuven	Belgium
3	Wageningen University	Wageningen	Netherlands
4	AQUATEST a.s.	Praha 5	Czech Republic
5	GSF - Forschungszentrum fuer Umwelt und Gesundheit, GmbH	Neuherberg	Germany
6	C&E · Consulting und Engineering GmbH	Chemnitz	Germany
7	Umwelt- und Ingenieurtechnik GmbH Dresden	Dresden	Germany

Global change and ecosystems

SME ENVIRONMENT

3925

Project URL http://www.sme-environment.org

Title:	SUPPORTING THE PARTICIPATION OF ENVIRONMENTAL SMES FROM ASSOCIATED CANDIDATE COUNTRIES IN THE 6TH FRAMEWORK PROGRAMME		
Area:	Water cycle, including soil-related aspects - Action for associated candidate countries		
Instrument:	Specific Support Action (SSA)		
Project total cost:	300.006 €	Contract start date:	
EU contribution:	300.000 €	Duration:	24 months
Organisation:	GEONARDO Environmental Technologies	Budapest - Hungary	
Co-ordinator:	Mr. Bodo Balazs		

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 in the proposal writing phase. The services will comprise of a basic e-learning course on FP6 proposal writing, e-training services for the selected candidates and a 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.

Partners

Nb	Organisation	Town	Country
1	GEONARDO Environmental Technologies	Budapest	Hungary
2	INNOSTART National Business and Innovation Centre Foundation	Budapest	Hungary
3	Helsinki University of Technology	Espoo	Finland
4	Vienna University of Economics and Business Administration (Institute of Small Business and Entrepreneurship).	A-1090 Vienna	Austria
5	The Regional Environmental Center for Central and Eastern Europe	Szentendre	Hungary

Global change and ecosystems

SHARING

9244

Project URL http://www.lu.lv/Sharing

Title:	International Conference on "Integrative Approaches Towards Sustainability" (Baltic Sea Region sharing knowledge internally, across Europe, and world-wide)		
Area:	Water cycle, including soil-related aspects - Action for associated candidate countries		
Instrument:	Specific Support Action (SSA)		
Project total cost:	72.000 €	Contract start date:	1/09/2004
EU contribution:	72.000 €	Duration:	18 months
Organisation:	University of Latvia	Riga - Latvia	
Co-ordinator:	Dr Arnolds Ubelis		

Abstract

The 2nd Conference in the series of "Integrative Approaches Towards Sustainability" is a response to the request of participants of the first conference held in Latvia March 26-29, 2003 (http://home.lanet.lv/~asi/). An impressive forum of excellent key-note speakers was challenged by an ambitious audience of young researchers at the 1st Conference proceedings of which contain 600 pages. The Baltic Rim, a recognised leader in integrated treatment of environmental, social, and economic problems of sustainable development (SD), is facing the challenge of full acceptance of the Baltic Countries and Poland to this world-class club. The 2nd Conference aims to strengthen the integration of the region's RTD community and promotion of sharing its knowledge and expertise internally, across Europe (including the Mediterranean and Black Sea regions) and worldwide by inviting distinguished researchers to discuss the goals defined by the EU Council in Gothenburg, science-based thresholds of sustainability and limits with focus on the Baltic Rim, the corporate responsibility for SD in regional decision making, to share knowledge and expertise with particular focus on agriculture, forestry, education, and university-municipality partnership in basic and advanced fields of SD; to train the young researchers of the region and regions of Mediterranean and Black Sea. The 2nd Conference will contribute to creation of a "critical mass" of human potential for SD in the region and Europe. The Conference tasks will be implemented by an appropriate Agenda and composition of participant list. It is essential for the region to organise a high level conference in a new member state on the East coast of the Baltic Sea in order to address senior researchers, to train the young ones from the Baltic countries and Poland and to encourage them to take the opportunities offered by the ERA and the EC 6th FP. The work under the project consists of 6 Work packages.'

Partners

Nb	Organisation	Town	Country
1	University of Latvia	Riga	Latvia
2	Uppsala University	Uppsala	Sweden
3	Zeri Balticum	Riga	Latvia

Global change and ecosystems

SAFE

9603

Project URL http://www.saferenvironment.com

Title:	SME Action For the Environment in Candidate Countries		
Area:	Water cycle, including soil-related aspects - Action for associated candidate countries		
Instrument:	Specific Support Action (SSA)		
Project total cost:	300.000 €	Contract start date:	
EU contribution:	300.000 €	Duration:	24 months
Organisation:	EUROCONSULTANTS SA	Thessaloniki - Greece	
Co-ordinator:	Ms KATERINA KALLIGATSI		

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 mulitpliers 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 Workprogramme. 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) in: 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

Nb	Organisation	Town	Country
1	EUROCONSULTANTS SA	Thessaloniki	Greece
2	MEDECOLOGY FOUNDATION	Gzira	Malta
3	Osterreichische Foschungsforderungsgesellschaft mbH	Vienna	Austria
4	TURKIYE BILIMSEL VE TEKNIK ARASTIRMA KURUMU	Ankara	Turkey
5	INNOVA S.p.A.	Roma	Italy
6	INNOTERM Energetikai es Koernyezetvedelmi Fejlesztoe Kft.	Budapest	Hungary
7	INSTITUTE OF ENVIRONMENTAL PROTECTION	Warszawa	Poland
8	INSTYTUT PODSTAWOWYCH PROBLEMOW TECHNIKI POLSKIEJ AKADEMII NAUK	Warszawa	Poland
9	INSTITUTE OF FISHERIES AND AQUACULTURE-VARNA	Varna	Bulgaria

Global change and ecosystems

ERA-ENV

511088

Project URL http://www.eraenv.com

Title:	Integration of Associated Candidate Countries and New EU Member States in European Research Area by Environmental approaches		
Area:	Water cycle, including soil-related aspects - Action for associated candidate countries		
Instrument:	Specific Support Action (SSA)		
Project total cost:	499.999 €	Contract start date:	1/04/2005
EU contribution:	499.999 €	Duration:	18 months
Organisation:	SC FIMAN DEVELOPMENT SERVICES SA	Bucharest - Romania	
Co-ordinator:	Mr. Madalin Ionita		

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 proposals 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 an Germany), 2 are new Member States (Hungary and Slovakia) and 3 are Candidates Countries (Romania, Bulgaria and Turkey).

Partners

Nb	Organisation	Town	Country
1	SC FIMAN DEVELOPMENT SERVICES SA	Bucharest	Romania
2	Österreichische Forschungsförderungsgesellschaft mbH	Vienna	Austria
3	Institut fuer Automation und Kommunikation e. V. Magdeburg	Barleben	Germany
4	Technická univerzita vo Zvolene (Technical University in Zvolen)	Zvolen	Slovakia
5	National Office for Research and Technology	Budapest	Hungary
6	Central Laboratory of General Ecology - Bulgarian Academy of Sciences	Sofia	Bulgaria
7	The Scientific and Technical Research Council of Turkey	Ankara	Turkey
8	Applied Research and Communications Fund	Sofia	Bulgaria
9	Ministry of Education and Research	Bucharest	Romania
10	Istanbul Technical University European Union Center	Maslak - Istabul	Turkey
11	Budapest University of Technology and Economics	Budapest	Hungary

Global change and ecosystems

EURO-LIMPACS

505540

Project URL http://www.eurolimpacs.ucl.ac.uk/

Title:	Integrated Project to Evaluate the Impacts of Global Change on European Freshwater Ecosystems		
Area:	Water cycle, including soil-related aspects - Assessment of ecological impacts of global change on freshwater bodies, development of ecological indicators of ecosystem "health" and related remediation strategies		
Instrument:	Integrated Project (IP)		
Project total cost:	19.154.659 €	Contract start date:	1/02/2004
EU contribution:	12.647.141 €	Duration:	60 months
Organisation:	UNIVERSITY COLLEGE LONDON	London - United Kingdom	
Co-ordinator:	Dr Simon Patrick		

Abstract

Freshwater ecosystems, under stress from land-use change and pollution, 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 international directives and protocols and supports the EU's Charter on Sustainable Development. The Project comprises a consortium of leading scientists 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 3 critical time-scales: (I) hours/days, concerned with changes in the magnitude and frequency of extreme events; (ii) seasons, concerned with changes in ecosystem function and life-cycle strategies of freshwater biota; (iii) years/decades, concerned with ecological response to environmental pressure, including stress reduction and ecosystem recovery. An innovative toolkit for integrated catchment analysis and modelling will be developed 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 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

Nb	Organisation	Town	Country
1	UNIVERSITY COLLEGE LONDON	London	United Kingdom
2	DANMARKS MILJOEUNDERSOEGELSER	Roskilde	Denmark
3	ROYAL HOLLOWAY AND BEDFORD NEW COLLEGE	Egham, Surrey	United Kingdom
4	UNIVERSITAET DUISBURG-ESSEN	Essen	Germany
5	UNIVERSITY OF READING	Reading	United Kingdom
6	ALTERRA B.V.	Wageningen	Netherlands
7	NATURAL ENVIRONMENT RESEARCH COUNCIL	Swindon	United Kingdom
8	CONSEJO SUPERIOR DE INVESTIGACIONES CIENTIFICAS	Madrid	Spain
9	IVL SVENSKA MILJOEINSTITUTET AB	Stockholm	Sweden
10	NORSK INSTITUTT FOR VANNFORSKNING	Oslo	Norway
11	SVERIGES LANTBRUKSUNIVERSITET	Uppsala	Sweden
12	SUOMEN YMPARISTOKESKUS	Helsinki	Finland
13	LEOPOLD FRANZENS UNIVERSITAET INNSBRUCK	Innsbruck	Austria
14	THE UNIVERSITY OF LIVERPOOL	Liverpool	United Kingdom
15	UNIVERSITAET FUER BODENKULTUR	Vienna	Austria
16	CONSIGLIO NAZIONALE DELLE RICERCHE	Roma	Italy
17	CENTRE NATIONAL DE LA RECHERCHE SCIENTIFIQUE	Paris	France
18	EIDGENOESSISCHE ANSTALT FUR WASSERVERSORGUNG ABWASSERREINIGUNG UND GEWAESSERSCHUTZ	Duebendorf	Switzerland
19	THE GOULANDRIS NATURAL HISTORY MUSEUM	Kifissia	Greece
20	ENTERA INGENIEURGESELLSCHAFT FUR PLANNUNG UND INFORMATIONSTECHNOLOGIE GbR	Hannover	Germany
21	HYDROBIOLOGICKY USTAV, AKADEMIE VID CESKE REPUBLIKY	Ceske Budejovice	Czech Republic
22	UNIVERZITA KARLOVA V PRAZE	Praha 1	Czech Republic

23	HYDROMOD DR. K DUWE, K. PFEIFFER, J. POST, G. DUNKEL, DR DR H BAUMERT GBR	Wedel	Germany
24	VRIJE UNIVERSITEIT AMSTERDAM	Amsterdam	Netherlands
25	KATHOLIEKE UNIVERSITEIT LEUVEN	Leuven	Belgium
26	MASARYKOVY UNIVERZITY V BRNE	Brno	Czech Republic
27	UNIVERSITAT DE BARCELONA	Barcelona	Spain
28	UFZ - UMWELTFORSCHUNGSZENTRUM LEIPZIG-HALLE GMBH	Leipzig	Germany
29	UNIVERSIDAD DE GRANADA	Granada	Spain
30	UNIVERSITY OF ICELAND	Reykjavik	Iceland
31	UNIVERSITATEA DIN BUCURESTI	Bucharest	Romania
32	UNIVERSITE DE RENNES 1	Rennes	France
33	UNIVERSITEIT UTRECHT	N/A	Netherlands
34	WATER PROBLEMS INSTITUTE OF THE RUSSIAN ACADEMY OF SCIENCES	Moscow	Russian Federatio
35	TRENT UNIVERSITY	Petersborough, Ontario	Canada
36	CESKA GEOLOGICKA SLUZBA	Prague	Czech Republic
37	MACAULAY INSTITUTE	Aberdeen	United Kingdom

Title:	IN SITU STIMULATION AND REMEDIATION OF CONTAMINATED FRACTURED SOILS		
Area:	Water cycle, including soil-related aspects - Ecological impact of global change, soil functioning and water quality		
Instrument:	Specific Targeted Research Project (STREP)		
Project total cost:	2.124.430 €	Contract start date:	1/06/2004
EU contribution:	1.100.000 €	Duration:	36 months
Organisation:	Geological Survey of Denmark and Greenland	Copenhagen K - Denmark	
Co-ordinator:	Dr. Edmund Gosk		

Abstract

This project proposes pre-normative work aiming to design on site soil stimulation techniques for the cost-effective in situ remediation of NAPL-contaminated fractured soils of low permeability. Field-scale studies will be performed on fractured clay till site that has been heavily contaminated by NAPL. Integrated methods of multi-scale characterisation of fractured media will be employed to establish regional and local hydrological/geological models, and quantify the existing fracture networks. Chemical analyses on soil and groundwater samples and predictions of an existing macroscopic simulator of NAPL transport in fractured media (SIMUSCOPP) will set the initial conditions of contamination. The microbiological acti- vity will be identified to evaluate the soil/water capacity for NAPL biodegradation. Hydraulic fracturing on three sites will be made and three soil stimulation scenarios differing with respect to the remediation methodology, will be carried out on all sites. The most adequate strategy will be recommended. From micro-structural properties/hydrodynamic conditions /fluid properties, and using lab-scale techniques/computational methods of the statistical physics of disordered media, the effective transport coefficients of four soil components will be determined: clay till, sand, natural fractures, artificial hydrau- lic fractures. From the local properties, the up-scaled transport coefficients will be determined and introduced as input data in the SIMUSCOPP simulator. The SIMUSCOPP will be extended to take into account (i) the artificial hydraulic fractures, and (ii) various remediation scenarios. Monitoring of the chemical status of soil and groundwater, and numerical predictions of the updated simulator will form databases which, in combination with cost benefit analysis, will enable us to set the criteria for the selection of the most cost-effective strategy of stimulation/remediation on similar NAPL contaminated sites.

Partners

Nb	Organisation	Town	Country
1	Geological Survey of Denmark and Greenland	Copenhagen K	Denmark
2	Foundation for Research and Technology Hellas	Heraklion	Greece
3	Institut Français du Pétrole	Rueil Malmaison	France
4	Brøndborefirmaet Brøker	Holbæk	Denmark
5	HYDROGEOTECHNIKA Sp. z o. o.	Kielce	Poland

Global change and ecosystems

AQUATERRA

505428

Project URL http://www.eu-aquaterra.de

Title:	Understanding river-sediment-soil-groundwater interactions for support of management of waterbodies (river basin & catchment areas)		
Area:	Water cycle, including soil-related aspects - River-soil-groundwater system functioning		
Instrument:	Integrated Project (IP)		
Project total cost:	20.222.364 €	Contract start date:	1/06/2004
EU contribution:	12.999.992 €	Duration:	60 months
Organisation:	Attempto Service GmbH	Tübingen - Germany	
Co-ordinator:	MA Elisabeth Frank		

Abstract

Changes in climatic conditions, land use practices and soil and sediment pollution have large scale adverse impacts on water quantity and quality. The current knowledge base in river basin management is not adequate to deal with these impacts. AquaTerra is both integrating and developing knowledge to resolve this and disseminating it to stakeholders. In the water cycle, soil is a key element affecting groundwater recharge and the chemical composition of both subsurface and surface waters (the latter is additionally affected by sediments). The proper functioning of the river-sediment-soil- groundwater system is linked to key biogeochemical processes determining the filter, buffer and transformation capacity of soils and sediments. AquaTerra aims at a better understanding of the system as a whole by identifying relevant processes, quantifying the associated parameters and developing numerical models of the groundwater-soil-sediment-river system to identify adverse trends in soil functioning, water quantity and quality. The modelling addresses all relevant scales starting from micro-scale water/solid interactions, the transport of dissolved species, pollutants as well as suspended matter in soil and groundwater systems at the catchment scale, and finally the regional scale, with case studies located in major river basins in Europe. With this integrated modelling system, AquaTerra provides the basis for improved river basin management, enhanced soil and groundwater monitoring programs and the early identification and forecasting of impacts on water quantity and quality during this century. AquaTerra is committed to the dissemination and exploitation of project results through structured workshops, dedicated short courses, and the active participation of consortium partners in national and international conferences. The quality and direction of the project is supervised by a peer review panel.

Partners

Nb	Organisation	Town	Country
1	Attempto Service GmbH	Tübingen	Germany
2	Eberhard Karls Universitaet Tuebingen	Tuebingen	Germany
3	BUREAU DE RECHERCHES GEOLOGIQUES ET MINIERES	Paris	France
4	Netherlands Organisation for Applied Scientific Research	Delft	Netherlands
5	University of Newcastle upon Tyne	Newcastle Upon Tyne	United Kingdom
6	Lancaster University	Lancaster	United Kingdom
7	Czech Technical University in Prague	Prague	Czech Republic
8	Danmarks Tekniske Universitet (Technical University of Denmark)	Kgs. Lyngby	Denmark
9	CONSEJO SUPERIOR DE INVESTIGACIONES CIENTIFICAS	Madrid	Spain
10	Wageningen University	Wageningen	Netherlands
11	Umweltforschungszentrum Halle Leipzig GmbH	Leipzig	Germany
12	Technische Universität Hamburg-Harburg represented by TUHH-Technologie GmbH	Hamburg	Germany
13	Eidgenössische Technische Hochschule Zürich	Zürich	Switzerland
14	Institute for Ecology of Industrial Areas	Katowice	Poland
15	Université de Neuchâtel	Neuchâtel	Switzerland
16	AGENCIA CATALANA DE L'AIGUA'	Barcelona	Spain
17	Akademia Górniczo-Hutnicza	Cracow	Poland
18	Europa Fachhochschule Fresenius	Idstein	Germany
19	Vlaamse instelling voor technologisch onderzoek	Mol	Belgium
20	BOKU - University of Natural Resources and Applied Life Sciences, Vienna	Vienna	Austria
21	Utrecht University	Utrecht	Netherlands
22	University of Liège	Liège	Belgium
23	UNIVERSITE LIBRE DE BRUXELLES	Brussels	Belgium
24	Université Henri Poincaré NANCY 1	Nancy	France
25	Faculté Universitaire Agronomiques de Gembloux	Gembloux	Belgium

26	Université d'Avignon et des Pays de Vaucluse'	Avignon	France
27	Vrije universiteit Amsterdam	Amsterdam	Netherlands
28	Università degli Studi di Trento - Dipartimento di Ingegneria Civile ed Ambientale	Trento	Italy
29	Università degli Studi Padova	Padova	Italy
30	Vyzkumny ústav vodohospodársky T.G.Masaryka	Praha 6	Czech Republic
31	Institut Scientifique de Service Public	Liege	Belgium
32	Institute for Inland Water Management and Waste Water Treatment	Lelystad	Netherlands
33	Provincie Noord-Brabant	'S-Hertogenbosch	Netherlands
34	INSTITUL NATIONAL DE CERCETARE - DEZVOLTARE PENTRU PROTECTIA MEDIULUI - ICIM Bucuresti	Bucharest	Romania
35	Ministry for Protection of Natural Resources and Environment Republic of Serbia	Belgrade	Serbia and Monte
36	Water Research Institute	Bratislava	Slovakia
37	Technical University of Munich	München	Germany
38	ACTeon	Orbey	France
39	LAOP Consulting & Research - Laboratories for Applied Organic Petrology	Lauta	Germany
40	r3 environmental technology Limited	Reading	United Kingdom
41	AGUAS DE BARCELONA	Barcelona	Spain
42	GOBIO GmbH - Institut für Gewässeroekologie und angewandte Biologie	Hohenstein	Germany
43	AQUATEST a.s.	Prague	Czech Republic
44	Environmental Institute	Kos	Slovakia
45	WASY Gesellschaft für wasserwirtschaftliche Planung und Systemforschung mbH	Berlin	Germany

Title:	New Approaches to Adaptive Water Management under Uncertainty		
Area:	Water cycle, including soil-related aspects - Methodologies of integrated water resource management and transboundary issues		
Instrument:	Integrated Project (IP)		
Project total cost:	15.914.530 €	Contract start date:	1/01/2005
EU contribution:	11.999.961 €	Duration:	48 months
Organisation:	University of Osnabrueck	Osnabrueck - Germany	
Co-ordinator:	Prof. Claudia Pahl-Wostl		

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, with practical applications and testing through participatory stakeholders processes and selected river basins.

Partners

Nb	Organisation	Town	Country
1	University of Osnabrueck	Osnabrueck	Germany
2	Alterra BV	Wageningen	Netherlands
3	Natural Environment Research Council	Swindon	United Kingdom
4	Centre National du Machinisme Agricole, du Génie Rural des Eaux et des Forêts	Antony	France
5	Geological Survey of Denmark and Greenland	Copenhagen K	Denmark
6	HR Wallingford Ltd	Wallingford, Oxfordshire	United Kingdom
7	International Institute for Applied Systems Analysis	Laxenburg	Austria
8	York University	York	United Kingdom
9	Tashkent Institute of Irrigation and Melioration	Tashkent	Uzbekistan
11	Universitaet Kassel	Kassel	Germany
12	Katholieke Universiteit Leuven	Leuven	Belgium
13	Cranfield University	Bedford	United Kingdom
14	Ecologic- Institute for International and European Environmental Policy	Berlin	Germany
15	Fondazione Eni Enrico Mattei	Milan	Italy
17	Maastricht University	Maastricht	Netherlands
18	Institute of Hydrodynamics, Academy of Sciences of the Czech Republic	Prague 6	Czech Republic
19	Institute of Natural Resources	Pietermartizburg	South Africa
20	National Research Council	Roma	Italy
21	Instituto de Soldadura e Qualidade	Porto Salvo	Portugal
22	IUCN - International Union for the Conservation of Nature and Natural Resources	Gland	Switzerland
24	Manchester Metropolitan University	Manchester	United Kingdom
25	Max-Planck-Gesellschaft zur Förderung der Wissenschaften e.V.	München	Germany
26	National Scientific Centre for Medical and Biotechnical Research/National Academy of Sciences of Ukraine	Kiev	Ukraine

27	Potsdam Institute for Climate Impact Research	Potsdam	Germany
28	Technische Universiteit Delft	Delft	Netherlands
29	Rijksinstituut voor Integraal Zoetwaterbeheer en Afvalwaterbehandeling	Lelystad	Netherlands
30	Seecon Deutschland GmbH	Osnabrueck	Germany
32	Vyzkumny ustav vodohospodarsky T.G. Masaryka (T.G. Masaryk Water Research Institute)	Prague 6	Czech Republic
33	Universidad Complutense de Madrid	Madrid	Spain
34	UFZ - Umweltforschungszentrum Leipzig-Halle GmbH	Leipzig	Germany
36	Umeaa University	Umeaa	Sweden
37	UNIVERSITY OF EXETER	Exeter	United Kingdom
38	Universidad Politécnica de Madrid	Madrid	Spain
39	University of Twente	Enschede	Netherlands
40	Vrije Universiteit Amsterdam - Institute for Environmental Studies	Amsterdam	Netherlands
42	Wageningen University	Wageningen	Netherlands
43	Rheinische Friedrich-Wilhelms-Universität	Bonn	Germany

Global change and ecosystems

AQUASTRESS

511231

Project URL http://environ.chemeng.ntua.gr/aquastress/

Title:	Mitigation of Water Stress through new Approaches to Integrating Management, Technical, Economic and Institutional Instruments		
Area:	Water cycle, including soil-related aspects - New approaches to water stress		
Instrument:	Integrated Project (IP)		
Project total cost:	14.086.618 €	Contract start date:	1/02/2005
EU contribution:	10.300.000 €	Duration:	48 months
Organisation:	CONSIGLIO NAZIONALE DELLE RICERCHE	Roma - Italy	
Co-ordinator:	Prof. Roberto Passino		

Abstract

Water stress is a global problem with far-reaching economic and social implications. The mitigation of water stress at regional scale depends not just on technological innovations, but also on the development of new integrated water management tools and decision-making practices. The AquaStress IP delivers enhanced interdisciplinary methodologies enabling actors at different levels of involvement and at different stages of the planning process to mitigate water stress problems. This IP draws on both academic and practitioner skills to generate knowledge in technological, operational management, policy, socio-economic, and environmental domains. Contributions come from 36 renowned organizations from 17 Countries, including 6 SMEs. The IP will generate scientific innovations to improve the understanding of water stress from an integrated multisectoral perspective to support: - diagnosis and characterisation of sources and causes of water stress - assessment of the effectiveness of water stress management measures and development of new tailored options - development of supporting methods and tools to evaluate different mitigation options and their potential interactions - development and dissemination of guidelines, protocols, and policies - development of a participatory process to implement solutions tailored to environmental, cultural, economic and institutional settings - identification of barriers to policy mechanism implementation - continuous involvement of citizens and institutions within a social learning process that promotes new forms of water culture and nurtures long-term change and social adaptivity. The IP adopts a Case Study stakeholder driven approach and is organised in three phases; (i) characterisation of selected reference sites and relative water stress problems, (ii) collaborative identification of preferred solution options, (iii) testing of solutions according to stakeholder interests and expectations.

Partners

Nb	Organisation	Town	Country
1	CONSIGLIO NAZIONALE DELLE RICERCHE	Roma	Italy
2	UNIVERSITY OF READING	Reading	United Kingdom
3	RIJKSINSTITUUT VOOR INTEGRAAL ZOETWATERBEHEER EN AFVALWATERBEHANDELING	Lelystad	Netherlands
4	CRANFIELD UNIVERSITY	Bedford	United Kingdom
5	UNIVERSITY OF PIRAEUS	Piraeus	Greece
6	UNIVERSITY COLLEGE LONDON	London	United Kingdom
7	UNIVERSITAET OSNABRUECK	Osnabrueck	Germany
8	ALTERRA B.V.	Wageningen	Netherlands
9	RHEINISCH - WESTFALISCHE TECHNISCHE HOCHSCHULE AACHEN	Aachen	Germany
10	CENTRE NATIONAL DU MACHINISME AGRICOLE, DU GENIE RURAL DES EAUX ET DES FORETS	Antony	France
11	NATURAL ENVIRONMENT RESEARCH COUNCIL	Wallingford	United Kingdom
13	UNIVERSITAET HANNOVER	Hannover	Germany
14	UNIVERSITY OF EXETER	Exeter	United Kingdom
15	UNIVERSITAT DE BARCELONA	Barcelona	Spain
16	SC APA NOVA BUCURESTI SA	Bucharest	Romania
17	GEONARDO ENVIRONMENTAL TECHNOLOGIES LTD	Budapest	Hungary
18	STICHTING WATERLOOPKUNDIG LABORATORIUM	Delft	Netherlands
19	NEDERLANDSE ORGANISATIE VOOR TOEGEPAST NATUURWETENSCHAPPELIJK ONDERZOEK - TNO	Delft	Netherlands
20	AGENZIA PER LA PROMOZIONE DELLA RICERCA EUROPEA	Roma	Italy
21	NATIONAL TECHNICAL UNIVERSITY OF ATHENS	Athens	Greece
22	ISTITUTO AGRONOMICO MEDITERRANEO DE BARI	Valenzano	Italy
23	HYDRODATA SPA	Torino	Italy

24	CENTRE DE COOPERATION INTERNATIONALE EN RECHERCHE AGRONOMIQUE POUR LE DEVELOPPEMENT	Paris	France
25	INSTITUT DE RECHERCHE POUR LE DEVELOPPEMENT	Paris	France
26	HIDROMOD - MODELACAO EM ENGENHARIA Lda	Lisboa	Portugal
27	DHI - INSTITUT FOR VAND OG MILJOE	Hoersholm	Denmark
28	WAGENINGEN UNIVERSITEIT	Wageningen	Netherlands
29	INNOVATION & DEVELOPMENT CONSULTING	Brussels	Belgium
30	FACULDADE DE ENGENHARIA DA UNIVERSIDADE DO PORTO	Porto	Portugal
31	HYDROCONTROL - CENTRO DI RICERCA E FORMAZIONE PER IL CONTROLLO DEI SISTEMI IDRICI	Capoterra	Italy
32	POLITECHNIKA KRAKOWSKA	Cracow	Poland
33	UNIVERSITY OF ARCHITECTURE, CIVIL ENGINEERING AND GEODESY	Sofia	Bulgaria
34	AEOLIKI Foundation	Nicosia	Cyprus
35	INSTITUT NATIONAL AGRONOMIQUE DE TUNISIE	Tunis	Tunisia
36	INSTITUT AGRONOMIQUE ET VETERINAIRE HASSAN II	Rabat	Morocco

Global change and ecosystems

ALERT

505329

Project URL http://coastal-alert.bgs.ac.uk

Title:	Sustainable Management of Water Resources by Automated Real-Time Monitoring		
Area:	Water cycle, including soil-related aspects - Technologies for monitoring and mitigating the impact of water scarcity		
Instrument:	Specific Targeted Research Project (STREP)		
Project total cost:	3.475.818 €	Contract start date:	1/06/2004
EU contribution:	2.400.000 €	Duration:	36 months
Organisation:	NATURAL ENVIRONMENT RESEARCH COUNCIL	Swindon - United Kingdom	
Co-ordinator:	Dr Richard D Ogilvy		

Abstract

ALERT aims to develop a radically different strategy for monitoring and managing the impact of climatic change and land-use practice on scarce water resources. Innovative ALERT technology will be designed that will allow the near real-time measurement of geoelectric, hydrology and hydrochemical properties, virtually "on demand", thereby giving early warning of potential threats to ecosystems, and vulnerable water systems. The project will focus primarily on coastal zones where aquifers are under threat from over-exploitation, rising sea levels, anthropogenic pollutants and seawater intrusion. New and proven sensors and data capture devices will be permanently deployed in-situ, within a unified platform (ALERT hydro-station) at a test site in Almería, Spain. The site will be interrogated from the office by novel modem/telemetric and satellite links to provide volumetric images of the subsurface at regular intervals; thereby obviating the need for expensive repeat surveys and manual intervention. New 3D/4D time-lapse image reconstruction algorithms will be developed for distributed buried and borehole arrays. The volumetric electrical images (in space and time) will be transformed into hydrology properties and processes through the further development of mathematical relationships, derived from controlled laboratory studies. These datasets will be used to constrain a predictive hydrogelogical modelling capability. Innovative statistical techniques will be developed to assist up-scaling from the site model to catchment scale. A web-based GIS will be designed with new data fusion, risk analysis and decision support tools to facilitate the sustainable management of water resources in coastal zones. Scenario modelling based on stochastic and Bayesian networks will address the wider societal implications of the proposed work, including the economic, cultural and political issues, in the context of current and planned EU directives.

Partners

Nb	Organisation	Town	Country
1	NATURAL ENVIRONMENT RESEARCH COUNCIL	Swindon	United Kingdom
2	FORSCHUNGSZENTRUM JUELICH GMBH	Juelich	Germany
3	KOBENHAVNS UNIVERSITET	Koebenhavn K	Denmark
4	UNIVERSIDAD DE ALMERIA	Almeria	Spain
5	UNIVERSITE CATHOLIQUE DE LOUVAIN	Louvain-La-Neuve	Belgium
6	ARISTOTELEIO PANEPISTIMIO THESSALONIKIS - ARISTOTLE UNIVERSITY OF THESSALONIKI	Thessaloniki	Greece
7	INDUSTRIAL RESEARCH INSTITUTE FOR AUTOMATION AND MEASUREMENTS	Warsaw	Poland
8	ESCO sp. zo.o	Warsaw	Poland
9	GEOTOMOGRAPHIE	Neuwied	Germany
10	UNIVERSITE CADI AYYAD	Marrakech	Morocco
11	INSTITUT NATIONAL AGRONOMIQUE DE TUNISIE	Tunis Mahrajene (Cite El)	Tunisia

Global change and ecosystems

TwinBasinXN

1450

Project URL http://www.twinbasin.org

Title:	Promoting Twinning of River Basins for Developing Integrated Water Resources Management Practices		
Area:	Water cycle, including soil-related aspects - Twinning European/third countries river basins.		
Instrument:	Co-ordination Action (CA)		
Project total cost:	1.710.000 €	Contract start date:	1/01/2004
EU contribution:	900.000 €	Duration:	48 months
Organisation:	OFFICE INTERNATIONAL DE L'EAU	Paris - France	
Co-ordinator:	Mr Alain Bernard		

Abstract

A Basin Organisation is generally regarded as one of the best solutions to adopt for developing an Integrated Water Resources Management (IWRM) at a catchment level. There have then been many types of BO, some of them existing for several decades, and a lot in a development process ; they present a great diversity of legal statutes and economic schemes. None of these examples can be regarded as a model ; but, by facilitating direct exchanges on best practices, and as well on failed experiments, twinning can help Basin Organisations to improve their effectiveness : BO can profit from peers, regarding administrative, technical and institutional matters, or a quicker diffusion of the research outputs in the real life. The main goal of TWINBASINXN is to support effective use of research and development in the field of IWRM by promoting twinning of BO. This will be achieved by creating a world-wide forum dedicated to identifying and sharing knowledge and best practices. A Memorandum of Understanding (MoU) takes the form of a co-operation framework signed by a wide range of organisations, both public and private, which have an interest in the deployment of IWRM practices ; it is a voluntary agreement, entered into by organisations, prepared to be active participants in developing consensus on issues of common interest, and who are willing to commit both human and financial resources for this purpose, by participating in the operation of Specific Interest Groups (SIGs). This MoU implies public commitments from signatories, from which : to co-operate in the production of recommendations and guidelines for developing twinning and related services by co-operating in the specification of twinning activities - exchange of information, exchange of personnel - and of common knowledge representation systems and dissemination practices. The project will support staff mobility between twinned BO, for enhancing peer-to-peer exchanges and hands-on periods (0,5 to 2 months)

Partners

Nb	Organisation	Town	Country
1	OFFICE INTERNATIONAL DE L'EAU	Paris	France
2	AGENCE DE L'EAU SEINE NORMANDIE	Nanterre	France
3	RESEAU INTERNATIONAL DES ORGANISMES DE BASSIN	Paris	France
4	EA GROUPEMENT DES PROFESSIONNELS DU SECTEUR DE L'EAU EN PROVENCE	Aix En Provence	France
5	RED MEDITERRANEA DE ORGANISMOS DE CUENCA	Valencia	Spain
6	SECRETARIA DE RECURSOS HIDRICOS - MINISTERIO DO MEIO AMBIENTE	Brasilia - Distrito Federal	Brazil
7	GLOBAL WATER PARTNERSHIP	Stockholm	Sweden
8	TECHWARE - TECHNOLOGY FOR WATER RESOURCES	Bruxelles	Belgium
9	UNIVERSITY OF PRETORIA	Pretoria	South Africa
10	ORSZAGOS VIZUGYI FOIGAZGATOSAG	Budapest	Hungary
11	SCIENTIFIC INFORMATION CENTER OF INTERSTATE WATER COORDINATION COMMISSION OF CENTRAL ASIA	Tashkent	Uzbekistan
12	JASA TIRTA I PUBLIC CORPORATION	Malang	Indonesia
13	NIGER BASIN AUTHORITY - AFRICAN NETWORK OF BASIN ORGANISATIONS	Niamey	Niger
14	AGENCE DE BASSIN HYDROGRAPHIQUE ALGEROIS - HODNA-SOUMMAM	Kouba Alger	Algeria
15	AGENCE DE BASSIN HYDRAULIQUE DU SEBOU	Fez	Morocco
16	ORGANISATION POUR LA MISE EN VALEUR DU SENEGAL	Dakar	Senegal
17	COMISION NACIONAL DEL AGUA	Mexico Df	Mexico
18	THE ROMANIAN WATERS NATIONAL ADMINISTRATION	Bucharest	Romania

Global change and ecosystems

TWINBAS

505287

Project URL http://www.twinbas.org

Title:	Twinning European and third countries river basins for development of integrated water resources management methods		
Area:	Water cycle, including soil-related aspects - Twinning European/third countries river basins.		
Instrument:	Specific Targeted Research Project (STREP)		
Project total cost:	2.175.068 €	Contract start date:	1/12/2003
EU contribution:	1.389.893 €	Duration:	36 months
Organisation:	IVL SVENSKA MILJOEINSTITUTET AB	Stockholm - Sweden	
Co-ordinator:	Dr. Sam Ekstrand		

Abstract

Strategic objectives: 1. To fill gaps in knowledge and methods in order to enable implementation of a harmosided IWRM approach that addresses the European Water Initiative, in five river basins. 2. To enable and perform assessment of vulnerability to climate change and anthropogenic development, and produce integrated river basin management plans, that includes optimal combinations of actions. To reach the strategic objectives of TWINBAS, a number of research tasks on hydrology, modelling of pollution flow, impact assessment, socio-economics, scenario analyses and action efficiency have to be carried through. For all these activity areas, the goal is to bring knowledge to a level where IWRM can be implemented for the five twinned river basins; Okavango (Botswana), Nura (Kazakhstan), Bio Bio (Chile) Thames (UK) and Norrstrom (Sweden). TWINBAS will have an important strategic impact by creating the practical means for implementing the EU Water Initiative 'Water for Life'. The nature and width of the gaps in knowledge vary between the different case study rivers, and therefore the research required differs between the river basins. The research and the IWRM components of TWINBAS are organised according to the EU Water Framework Directive (WFD) so that the FWD guideline documents can be utilised. The proposal also addresses the EU Water Initiative, which promotes development that is demand led from the less developed countries. the strong component of public participation and stakeholder involvement will ensure that each component has local ownership and addresses priorities identified within the region. The river basins selected represent a wide variety of water use problems, and a variety of political and societal systems. Thus, the applicability of the WFD approach will vary for the third country basins, and methodology applied will be a modification of the WFD process TWINBAS ainms at enabling development of water management action plans #'

Partners

Nb	Organisation	Town	Country
1	IVL SVENSKA MILJOEINSTITUTET AB	Stockholm	Sweden
2	DHI - INSTITUT FOR VAND OG MILJOE	Hoersholm	Denmark
3	UNIVERSITY OF SOUTHAMPTON	Southampton	United Kingdom
4	COMISION NACIONAL DEL MEDIO AMBIENTE	Santiago De Chile	Chile
5	ALMATY INSTITUTE OF POWER ENGINEERING AND TELECOMMUNICATIONS	Almaty	Kazakhstan
6	NATURAL ENVIRONMENT RESEARCH COUNCIL	Swindon	United Kingdom
7	RHODES UNIVERSITY	Grahamstown	South Africa

Global change and ecosystems

RIVERTWIN

505401

Project URL http://www.rivertwin.org

Title:	A Regional Model for Integrated Water Management in Twinned River Basins		
Area:	Water cycle, including soil-related aspects - Twinning European/third countries river basins.		
Instrument:	Specific Targeted Research Project (STREP)		
Project total cost:	2.964.140 €	Contract start date:	1/03/2004
EU contribution:	2.460.160 €	Duration:	36 months
Organisation:	UNIVERSITAET HOHENHEIM	Stuttgart - Germany	
Co-ordinator:	Prof. Karl Stahr		

Abstract

The project "RIVERTWIN" aims in adjusting, testing and implementing an integrated regional model for the strategic planning of water resources management in twinned river basins under contrasting ecological, social and economic conditions. The regional model will take into account the impacts of demographic trends, economic and technological development, the effects of global climate and land use changes on the availability and quality of water bodies in humid temperate, subhumid tropical as well as semiarid regions. The existing integration framework will be first tested in a European river basin with high data availability and data density. The Transferability of the model to other regions with different economic level, ecological standards and with low data availability will be jointly tested by the project team and river basin organisations in two river basins in Westafrica and Uzbekistan. Here, the problem of adequate human resources and the uncertainties of input data for the implementation of computer based decision suppport tools will be addressed. Capacity building through training of end users supports the transfer of the research results into application. In cooperation with stakeholders and potential users integrated scenarios of economic growth, land use and climate change will be developed and the model will be used to assess the implications for water management under the respective scenario assumptions. The twinning of river basins will promote mutual transfer of know-how and technology between European and Third countries. Based on the results, river basin management plans can be prepared. Through its holistic basin wide approach, the project contributes to the EU water directive, the Millennium Goals defined by the WSSD and the EU water initiative for Africa and Newly Independent States.

Partners

Nb	Organisation	Town	Country
1	UNIVERSITAET HOHENHEIM	Stuttgart	Germany
2	UNIVERSITAET STUTTGART	Stuttgart	Germany
3	STICHTING ONDERZOEK WERELDVOEDSELVOORZIENING VAN DE VRIJE UNIVERSITEIT	Amsterdam	Netherlands
4	ARISTOTELEIO PANEPISTIMIO THESSALONIKIS - ARISTOTLE UNIVERSITY OF THESSALONIKI	Thessaloniki	Greece
5	STOCKHOLM ENVIRONMENT INSTITUTE	Stockholm	Sweden
6	INSTITUT NATIONAL DES RECHERCHES AGRICOLES DU BENIN	Cotonou	Benin
7	DIRECTION DE L'HYDRAULIQUE	Cotonou	Benin
8	UNIVERSITE D' ABOMEY CALAVI	Cotonou	Benin
9	SCIENTIFIC INFORMATION CENTER OF INTERSTATE WATER COORDINATION COMMISSION OF CENTRAL ASIA	Tashkent	Uzbekistan
10	SJE - SCHNEIDER & JORDE ECOLOGICAL ENGINEERING GMBH	Stuttgart	Germany
11	TERRA FUSCA, MAROHN & LANGE GbR	Stuttgart	Germany

Global change and ecosystems

WADE

506680

Project URL http://www.ccma.csic.es/dpts/suelos/hidro/wade/home.html

Title:	FLOODWATER RECHARGE OF ALLUVIAL AQUIFERS IN DRYLAND ENVIRONMENTS		
Area:	Water cycle, including soil-related aspects - Twinning European/third countries river basins.		
Instrument:	Specific Targeted Research Project (STREP)		
Project total cost:	2.605.295 €	Contract start date:	1/07/2004
EU contribution:	1.700.000 €	Duration:	36 months
Organisation:	CONSEJO SUPERIOR DE INVESTIGACIONES CIENTIFICAS	Madrid - Spain	
Co-ordinator:	Dr Gerardo Benito		

Abstract

The WADE project aims to assess long-term (decades to centuries) water resources in selected semiarid to hyperarid ephemeral river basins by determining long-term transmission losses from floods and quantifying floodwater recharge into alluvial aquifers. An innovative approach will be applied based on three principal research themes. 1) Palaeoflood hydrology will be used to determine long-term flood magnitude and frequency in order to quantify the frequency of recharging flood events. 2) Surface and sub-surface hydrology will be monitored in order to quantify transmission losses through the river bed into the alluvial aquifers. The combination of these two methologies will be able to quantify long-term aquifer recharge through flooding. 3) The final research theme focuses on the socio-economic issues related to the use of alluvial aquifer groundwater within the study catchments. The research will be undertaken in 4 research basins, twinning catchments in Spain and Israel with study catchments in Namibia and South Africa.

Partners

Nb	Organisation	Town	Country
1	CONSEJO SUPERIOR DE INVESTIGACIONES CIENTIFICAS	Madrid	Spain
2	THE HEBREW UNIVERSITY OF JERUSALEM	Jerusalem	Israel
3	HYDROISOTOP GMBH	Schweitenkirchen	Germany
4	DESERT RESEARCH FOUNDATION OF NAMIBIA	Windhoek	Namibia
5	THE UNIVERSITY OF EDINBURGH	Edinburgh	United Kingdom
6	UNIVERSITY OF CAPE TOWN	Rondenbosch	South Africa
7	INSTITUT NATIONAL DE LA RECHERCHE SCIENTIFIQUE	Sainte-Foy (Quebec)	Canada
8	BEN GURION UNIVERSITY OF THE NEGEV	Beer Sheva	Israel
9	MINISTRY OF AGRICULTURE, WATER AND RURAL DEVELOPMENT	Windhoek	Namibia
10	SURPLUS PEOPLE PROJECT	Athlone, Cape Town	South Africa
11	KAMIESBURG MUNICIPALITY	Garies	South Africa
12	NAMA KHOI MUNICIPALITY	Springbok	South Africa

Global change and ecosystems

EXOCET/ D

505342

Project URL http://www.ifremer.fr/exocetd/

Title:	Extreme ecosystems studies in the deep ocean: technological developments		
Area:	Biodiversity and ecosystems - Cost effective, reliable and efficient technologies for enabling progress in biodiversity and ecosystem science		
Instrument:	Specific Targeted Research Project (STREP)		
Project total cost:	3.454.547 €	Contract start date:	1/01/2004
EU contribution:	2.000.000 €	Duration:	36 months
Organisation:	INSTITUT FRANCAIS DE RECHERCHE POUR L'EXPLOITATION DE LA MER	Issy Les Moulineaux - France	
Co-ordinator:	DR. Pierre-Marie Sarradin		

Abstract

The aim of this proposal is the technological development of a specific instrumentation allowing the study of natural or accidentally perturbed ecosystems found in the deep ocean. These ecosystems are related to the emission of reduced fluids (cold seeps, hydrothermal vents), peculiar topographic structures (seamounts, deep corals), massive organic inputs (sunken woods) or to unpredictable events (pollution, earthquakes). Beside their insularity in the abyssal plain, the targeted ecosystems are characterised by patchy faunal distributions, unusual biological productivity, steep chemical and/or physical gradients, high perturbation levels and strong organism/habitat interactions at infra-metric scales. Their reduced size and unique biological composition and functioning make them difficult to study with conventional instrumentations deployed from surface vessels. Their study requires the use of submersibles able to work at reduced scales on the seafloor as well as the development of autonomous instruments for long-term monitoring (seafloor observatories). The general objective of EXOCET/D is to develop, implement and test specific instruments aimed at exploring, describing and quantifying biodiversity in deep-sea fragmented habitats and to identify links between community structure and environmental dynamics. Inboard experimental devices will complement the approach, enabling experiments on species physiology. The EXOCET/D working fields include: video and acoustic imagery, in situ analysis of habitat chemical and physical components; quantitative sampling of organisms, in vivo experiments; 4D integration of multidisciplinary data ; implementation on European deep-submersibles; validation during demonstration actions.

Partners

Nb	Organisation	Town	Country
1	INSTITUT FRANCAIS DE RECHERCHE POUR L'EXPLOITATION DE LA MER	Issy Les Moulineaux	France
2	STIFTUNG ALFRED-WEGENER-INSTITUT FUER POLAR- UND MEERESFORSCHUNG	Bremerhaven	Germany
3	INSTITUTO DO MAR	Coimbra	Portugal
4	INSTITUTO SUPERIOR TECNICO	Lisboa	Portugal
5	UNIVERSITE PIERRE ET MARIE CURIE	Paris	France
6	CENTRE NATIONAL DE LA RECHERCHE SCIENTIFIQUE	Paris	France
7	UNIVERSITY OF WALES, CARDIFF	Cardiff	United Kingdom
8	HERIOT-WATT UNIVERSITY	Edinburgh	United Kingdom
9	CENTRO DE INVESTIGACAO TECNOLOGICA DO ALGARVE	Faro	Portugal
10	UNIVERSITAET BREMEN	Bremen	Germany
11	SEEBYTE LTD	Edinburgh	United Kingdom
12	SYSTEA-SYSTEMS TECHNOLOGY ADVANCE SRL	Roma	Italy
13	CAPSUM TECHNOLOGIE GMBH	Trittau	Germany

Global change and ecosystems

COBO

505564

Project URL http://www.cobo.org.uk/

Title:	Integrating new technologies for the study of benthic ecosystem response to human activity: towards a Coastal Ocean Benthic Observatory		
Area:	Biodiversity and ecosystems - Cost effective, reliable and efficient technologies for enabling progress in biodiversity and ecosystem science		
Instrument:	Specific Targeted Research Project (STREP)		
Project total cost:	2.889.410 €	Contract start date:	1/03/2004
EU contribution:	1.999.485 €	Duration:	36 months
Organisation:	THE SCOTTISH ASSOCIATION FOR MARINE SCIENCE	Oban - United Kingdom	
Co-ordinator:	Prof Graham Shimmield		

Abstract

Coastal ecosystems are particularly vulnerable to anthropogenic perturbation, affecting biodiversity and ecosystem stability and resilience. Shallow water sediments and their associated biota represent a reservoir for biodiversity, hosting resting and reproductive stages of planktonic organisms, and regulating carbon and nutrient biogeochemical cycles. However, the relationship between tightly coupled biological and geochemical processes in this environment is poorly defined with respect to their temporal and spatial variability. The overall objective of COBO is to integrate emerging and innovative technologies from different disciplines (physics, chemistry, biology, imagery) to provide in situ monitoring of sediment habitats, a key component of coastal marine ecosystems, in order to understand complex interactions between the biota (function and diversity) and their chemical environment. Existing technologies have limited spatial and temporal sampling resolutions and this has hampered progress in determining key parameters and in explaining biogeochemical patterns / processes and in modeling ecosystem dynamics. Improved in situ technologies are required to provide rigorous scientific information on processes regulating this unique and fragile habitat and for assessing, controlling and minimising human impact on European coastal waters thus addressing societal need. Organism-sediment processes, with both enhancing and mediating effects, are still poorly understood in shallow water sediments that receive the bulk of anthropogenic disturbance. The combination of innovative instruments from the different disciplines will provide powerful tools to significantly advance our understanding of organism sediment relations under dynamic coastal conditions and enhance predictive capability. COBO represents a major step towards the development of permanently operating benthic observatories for coastal management.

Partners

Nb	Organisation	Town	Country
1	THE SCOTTISH ASSOCIATION FOR MARINE SCIENCE	Oban	United Kingdom
2	COMMISSARIAT A L'ENERGIE ATOMIQUE	Paris	France
3	KOBENHAVNS UNIVERSITET	Koebenhavn K	Denmark
4	UNIVERSITAET POTSDAM	Potsdam	Germany
5	UNIVERSITY COURT OF THE UNIVERSITY OF ABERDEEN	Aberdeen	United Kingdom
6	THE SECRETARY OF STATE FOR ENVIRONMENT, FOOD AND RURAL AFFAIRS ACTING THROUGH THE CENTRE FOR ENVIRONMENT, FISHERIES AND AQUACULTURE SCIENCE	Lowestoft, Suffolk	United Kingdom
7	STIFTUNG ALFRED-WEGENER-INSTITUT FUER POLAR- UND MEERESFORSCHUNG	Bremerhaven	Germany
8	MAX PLANCK GESELLSCHAFT ZUR FOERDERUNG DER WISSENSCHAFTEN E.V.	Muenchen	Germany
9	GOETEBORG UNIVERSITET	Goeteborg	Sweden
10	CONSIGLIO NAZIONALE DELLE RICERCHE	Roma	Italy
11	CENTRE NATIONAL DE LA RECHERCHE SCIENTIFIQUE	Paris	France
12	UNISENSE A/S	Aarhus C	Denmark
13	SEA ENVIRONMENTAL DECISIONS	Little Hadham Hertfordshire	United Kingdom
14	UNIVERSITE DE LA MEDITERRANEE D'AIX-MARSEILLE II	Marseille	France

Global change and ecosystems

MODELKEY

511237

Project URL http://www.modelkey.org.

Title:	Models for Assessing and Forecasting the Impact of Environmental Key Pollutants on Marine and Freshwater Ecosystems and Biodiversity		
Area:	Biodiversity and ecosystems - Develop model(s) for assessing and forecasting the impact of environmental pollution on fresh water and marine ecosystems and their biological diversity		
Instrument:	Integrated Project (IP)		
Project total cost:	12.428.118 €	Contract start date:	1/02/2005
EU contribution:	8.400.000 €	Duration:	60 months
Organisation:	UFZ - Umweltforschungszentrum Leipzig - Halle GmbH	Leipzig - Germany	
Co-ordinator:	Dr. Werner Brack		

Abstract

MODELKEY comprises a mulitdisciplinary 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

Nb	Organisation	Town	Country
1	UFZ - Umweltforschungszentrum Leipzig - Halle GmbH	Leipzig	Germany
2	Universiteit Antwerpen	Antwerpen	Belgium
3	The Secretary of State for Environment, Food & Rural Affairs Acting through the Centre for Environment, Fisheries & Aquaculture Science	Lowestoft	United Kingdom
4	Stichting Waterloopkundig Laboratorium	Delft	Netherlands
5	Consorzio Venezia Ricerche	Marghera Venezia	Italy
6	Vrije Universiteit Amsterdam	Amsterdam	Netherlands
7	Centre National de Recherche Scientifique	Paris	France
8	CONSEJO SUPERIOR DE INVESTIGACIONES CIENTIFICAS	Madrid	Spain
9	Universitat de Girona	Girona	Spain
10	Universität Bern	Bern	Switzerland
11	Vyzkumny ustav veterinarniho lekarstvi (Veterinary Research Institute)	Brno	Czech Republic
12	Ústav biologie obratlovcu, Akademie Ved Ceské Republiky (Institute of Vertebrate Biology, Academy of Sciences of Czech Republic)	Brno	Czech Republic
13	University of Joensuu (Joensuun Yliopisto)	Joensuu	Finland
14	Arbeitsgemeinschaft für die Reinhaltung der Elbe	Hamburg	Germany
15	Rijksinstituut voor Kust & Zee (National Institut for Coastal & Marine Management)	Den Haag	Netherlands
16	Nederlands Instituut voor Visserij Onderzoek (Netherlands Institute for Fisheries Research)	Ijmuiden	Netherlands
17	Slovenska Zdravotnicka Univerzita	Bratislava	Slovakia
18	Rijksinstituut voor Volksgezondheid en Milieu (National Institute for Public Health and the Environment)	Bilthoven	Netherlands
19	Universität Stuttgart	Stuttgart	Germany
20	State Educational Establishment of Higher Professional Education "Saint-Petersburg State University"	St.Petersburg	Russian Federatio
21	AGENCIA CATALANA DE L'AIGUA	Barcelona	Spain

22	Universitat de Barcelona	Barcelona	Spain
23	ECT Oekotoxikologie GmbH	Flörsheim/Main	Germany
24	Xenometrics by Endotell GmbH	Allschwil	Switzerland
25	Donabaum & Wolfram OEG	Vienna	Austria

Global change and ecosystems

NOMIRACLE

3956

Project URL http://viso.jrc.it/nomiracle

Title:	Novel Methods for Íntegrated Risk Assessment of Cumulative Stressors in Europe		
Area:	Complementary Research - Development of risk assessment methodologies		
Instrument:	Integrated Project (IP)		
Project total cost:	14.526.885 €	Contract start date:	1/11/2004
EU contribution:	10.000.000 €	Duration:	60 months
Organisation:	National Environmental Research Institute	Roskilde - Denmark	
Co-ordinator:	Dr. Hans Løkke		

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 ecotoxicology, environmental chemistry/biochemistry, toxicogenomics, physics, mathematical modelling, geographic informatics, and socio-economic science.

Partners

Nb	Organisation	Town	Country
1	National Environmental Research Institute	Roskilde	Denmark
2	Natural Environment Research Council	Swindon	United Kingdom
3	UFZ - Umweltforschungszentrum Leipzig - Halle GmbH	Leipzig	Germany
4	Stichting Katholieke Universiteit	Nijmegen	Netherlands
5	Università degli studi del Piemonte Orientale "Amedeo Avogadro" Dipartimento di Scienze dell'Ambiente e della Vita	Alessandria	Italy
6	Vrije Universiteit Amsterdam	Amsterdam	Netherlands
7	National Institute of Public Health	Prague 10	Czech Republic
8	University of Wales, Cardiff	Cardiff	United Kingdom
9	The Chancellors, Masters and Scholars of the University of Cambridge	Cambridge	United Kingdom
10	Jagiellonian University (Uniwersytet Jagiellonski)	Krakow	Poland
11	Eberhard Karls Universität Tübingen	Tübingen	Germany
12	WAGENINGEN UNIVERSITY	Wageningen	Netherlands
13	Universidade de Aveiro	Aveiro	Portugal
14	UNIVERSITEIT ANTWERPEN	Antwerpen	Belgium
15	WRc-NSF Ltd.	Swindon, Wilshire	United Kingdom
16	Lemnatec GmbH	Würselen	Germany
17	Paris Lodron University of Salzburg	Salzburg	Austria
18	European Commission, Directorate General Joint Research Centre	Brussels	Belgium
19	Suomen ympäristökeskus (Finnish Environment Institute)	Helsinki	Finland
20	Institute of Environmental Engineering, Kaunas University of Technology	Kaunas	Lithuania
21	Alterra BV	Wageningen	Netherlands
22	Swiss Institute of Environmental Science and Technology	Dübendorf	Switzerland
23	National Institute of Public Health and the Environment	Bilthoven	Netherlands
24	LimCo International	Ibbenbüren	Germany
25	Rheinisch-Westfaelische Technische Hochschule Aachen Aachen University of Technology	Aachen	Germany

26	ECT Oekotoxikologie GmbH	Floersheim A.M.	Germany
27	Consorzio Interuniversitario Scienze del Mare - ULR MI Bicocca	Roma	Italy
28	ENVIRONMENT PARK S.P.A.	Torino	Italy
29	Ecole Polytechnique Fédérale de Lausanne	Lausanne	Switzerland
30	Lancaster University	Lancaster	United Kingdom
31	Stockholms Universitet	Stockholm	Sweden
32	DIALOGIK gGmbH	Stuttgart	Germany
33	UNIVERSITAT ROVIRA I VIRGILI	Tarragona	Spain
34	LHASA LIMITED	Leeds	United Kingdom
35	University "Prof. As. Zlatarov"	Bourgas	Bulgaria
36	CONSEJO SUPERIOR DE INVESTIGACIONES CIENTIFICAS	Madrid	Spain
37	University of Southampton	Southampton	United Kingdom
38	Institut SYMLOG de France	Cachan	France

Global change and ecosystems

ERAPHARM

511135

Project URL http://www.erapharm.org/

Title:	Environmental risk assessment of pharmaceuticals		
Area:	Complementary Research - Methods for risk assessment of pharmaceuticals in the environment		
Instrument:	Specific Targeted Research Project (STREP)		
Project total cost:	3.710.298 €	Contract start date:	1/10/2004
EU contribution:	2.797.198 €	Duration:	36 months
Organisation:	ECT Oekotoxikologie GmbH	Flörsheim/Main - Germany	
Co-ordinator:	Dr. Thomas Knacker		

Abstract

The overall objective of ERAPharm is to improve and complement existing knowledge and procedures for the environmental risk assessment (ERA) of human and veterinary pharmaceuticals. Based on EU regulatory frameworks on the ERA of pharmaceuticals and on the outcome of previous projects ERAPharm will address the following aspects: It will investigate previously unstudied major routes leading to exposure of the terrestrial and aquatic environment and subsequent fate of pharmaceuticals in surface water and sediment. Factors and processes affecting the behaviour of pharmaceuticals in the environment will be studied on the laboratory, semi-field and field scale. A scenario-based exposure assessment system will be developed for predicting concentrations of pharmaceuticals in soils, surface waters and sediments and leaching to groundwater. It will be investigated if environmentally relevant concentrations of pharmaceuticals pose a risk to aquatic and terrestrial organisms. Pharmaceuticals and selected transformation products will be screened using in vitro and low complexity bioanalytical tests in order to provide a first hazard characterisation and to target higher tier testing. Higher tier test methods will be improved and applied for detecting the effects of long-term, low-level exposure to pharmaceuticals on aquatic and terrestrial invertebrates and fish. It will be evaluated if information on pharmaco- and toxicodynamics in mammalian species can be used to predict effects of pharmaceuticals on environmental organisms. Moreover, the effects of antibiotics on microbial communities will be studied with a main focus on the spread of genetically encoded resistance. Based on the developed approaches recommendations will be provided on how to improve the ERA procedures for pharmaceuticals. A guidance document will be compiled that will be made available to regulators, industry and the scientific community.

Partners

Nb	Organisation	Town	Country
1	ECT Oekotoxikologie GmbH	Flörsheim/Main	Germany
2	AstraZeneca UK Ltd. (AstraZeneca PLC)	London	United Kingdom
3	Brunel University	Uxbridge	United Kingdom
4	Bundesanstalt für Gewässerkunde	Koblenz	Germany
5	Centre National du Machinisme Agricole du Genie Rural des Eaux et des Forets	Antony	France
6	University of York	York	United Kingdom
7	The Danish University of Pharmaceutical Sciences	Copenhagen	Denmark
8	Eidgenössische Anstalt für Wasserversorgung, Abwasserreinigung und Gewässerschutz	Dübendorf	Switzerland
9	Geotechnisches Institut AG	Bern	Switzerland
10	Utrecht University	Utrecht	Netherlands
11	Instituto Nacional de Investigación y Tecnologia Agraria y Alimentaria	Madrid	Spain
12	National Environmental Research Institute	Roskilde	Denmark
15	Umweltbundesamt	Berlin	Germany
16	Canadian Water Network	Waterloo, Ontario	Canada

Global change and ecosystems

EDEN

10284

Project URL http://www.eden-fp6project.net/

Title:	EMERGING DISEASES IN A CHANGING EUROPEAN ENVIRONMENT		
Area:	Complementary Research - Assessment of global change-driven factors linked to the risk of introducing or spreading emerging human diseases in Europe		
Instrument:	Integrated Project (IP)		
Project total cost:	15.325.900 €	Contract start date:	1/11/2004
EU contribution:	11.497.856 €	Duration:	60 months
Organisation:	Centre de Coopération Internationale en Recherche Agronomique pour le Développement	Paris - France	
Co-ordinator:	Dr Stéphane de La Rocque		

Abstract

These last years, several vector-borne, parasitic or zoonotic diseases have (re)-emerged and spread in the European territory with major health, ecological, socio-economical and political consequences. Most of these outbreaks are linked to global and local changes resulting of climatic changes or activities of human populations. Europe must anticipate, prevent and control new emergences to avoid major societal and economical crisis (cf. SARS in Asia, West Nile in US). EDEN (Emerging Diseases in a changing European Environment) offers a unique opportunity to prepare for uncertainties about the future of the European environment and its impact on human health. EDEN?s aim is to increase preparedness by developing and coordinating at European level a set of generic investigative methods, tools and skills within a common scientific framework (Landscapes, Vector and Parasite bionomics, Public Health, Animal Reservoirs). EDEN has therefore selected for study a range of diseases that are especially sensitive to environmental changes. Some of these diseases are already present in Europe (West Nile, Rodent-born, Tick-born, Leishmaniosis), others were present historically (Malaria) and so may re-emerge, whilst finally Rift Valley Fever is either on the fringes of Europe. EDEN integrates research between 42 leading institutes from 23 countries with the combined experience and skills to reach their common goals. EDEN is organised into a series of vertical Sub-Projects led and managed by an internationally recognised expert and linked by a series of Integrative Activities that include biodiversity monitoring, environmental change detection, disease modelling, remote sensing and image interpretation, information and communication. The proposed management structure, including a Scientific Board and a User Forum, takes into account both the diversity of the partners and the size of the project. Specific links with third world countries will be achieved through an Africa platform.

Partners

Nb	Organisation	Town	Country
1	Centre de Coopération Internationale en Recherche Agronomique pour le Développement	Paris	France
2	Universiteit Utrecht	Utrecht	Netherlands
3	Université Catholique de Louvain	Louvain La Neuve	Belgium
4	The chancellor, Masters and Scholars of the University of Oxford	Oxford	United Kingdom
5	European Agro-Environmental health Associates EEIG	Zoersel	Belgium
6	Department of Public Health Science, University La Sapienza, Roma	Rome	Italy
7	Istituto Zooprofilattico Sperimentale dell'Abruzzo' e del Molise "G. Caporale"	Teramo	Italy
8	Institut Pasteur	Paris	France
9	Instituto de Salud Carlos III	Madrid	Spain
10	Entente InterDépartementale pour la démoustication du littoral méditerranéen	Montpellier	France
11	Institute of Vertebrate Biology, Academy of Sciences of the Czech Republik	Brno	Czech Republic
12	Istituto Superiore di Sanita	Roma	Italy
13	Institut de Recherche pour le Développement	Paris	France
14	Hacettepe University Faculty of Science	Ankara	Turkey
15	Universidade Nova de Lisboa - Instituto de Higiene e Medicina Tropical	Lisboa	Portugal
16	Institut National d'Hygiène	Rabat	Morocco
17	Universitat de Valencia. Estudi General	Valencia	Spain
18	Centro di Ecologia Alpina	Garniga (Trento)	Italy
19	Medical University of Bialystok, Poland, Department of Infectious Diseases and Neuroinfections	Bialystok	Poland
20	Ludwig-Maximilians-Universitaet Munchen	Munich	Germany
21	Institute of Zoology, Slovak Academy of Sciences	Bratislava	Slovakia
22	National Health Development Institute	Tallinn	Estonia
23	Institute for Microbiology and Immunology, Medical Faculty of Ljubljana	Ljubljana	Slovenia

24	Instituto Vasco de investigacion y desarrollo agrario	Derio (Bizkaia)	Spain
25	Johan Bela National Centre for Epidemiolgy	Budapest	Hungary
26	State Agency "Public Health Agency"	Riga	Latvia
27	Centre for communicable diseases prevention and control	Vilnius	Lithuania
28	Finnish Forest Research Institute, Vantaa Research Centre	Helsinki	Finland
29	Insitut National de Recherche Agronomique	Paris	France
30	Swedish Institute for Infectious Disease Control	Solna, Stockholm	Sweden
31	University of Antwerpen	Antwerpen	Belgium
32	Helsingin yliopisto	Helsinki	Finland
33	University of Liverpool	Liverpool	United Kingdom
34	Natural History Museum	London	United Kingdom
35	Ege University medical school Department of parasitology	Bornova, Izmir	Turkey
36	London School of Hygiene & Tropical Medicine	London	United Kingdom
37	Szent Istvan University, Fac of Veterinary Science	Gödöllö	Hungary
38	University of Barcelona	Barcelona	Spain
39	Université Montpellier 1	Montpellier	France
40	Universiy of Crete	Heraklion	Greece
41	Institut Agronomique et Veterinaire Hassan II	Rabat	Morocco
42	Institut Senegalais de Recherches Agricoles	Dakar	Senegal
43	National Institute of Research-Development for Microbiology and Immunology "Cantacuzino"	Bucharest	Romania
44	INSTITUTUL NATIONAL DE CERCETARE DEZVOLTARE DELTA DUNARI	Tulcea	Romania
45	CONSEJO SUPERIOR DE INVESTIGACIONES CIENTÍFICAS	Madrid	Spain
46	INSTITUT PASTEUR D'ALGERIE	Alger	Algeria
47	MTA Állatorvos-Tudományi Kutató Intézete	Budapest	Hungary

Title:	INTRODUCING TOOLS FOR AGRICULTURAL DECISION-MAKING UNDER CLIMATE CHANGE CONDITIONS BY CONNECTING USERS AND TOOL-PROVIDERS		
Area:	Cross-cutting issue: Sustainable Development concepts and tools - Developing tools for integrated sustainability assessment and for the incorporation of sustainability in decision making processes		
Instrument:	Specific Support Action (SSA)		
Project total cost:	230.279 €	Contract start date:	
EU contribution:	230.279 €	Duration:	30 months
Organisation:	Instituto Tecnológico Agrario de Castilla y León	Valladolid - Spain	
Co-ordinator:	Dr. Angel Utset Suástegui		

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. The SSA should establish a continuous acting information network, comprising several European "developers" and "users".

Partners

Nb	Organisation	Town	Country
1	Instituto Tecnológico Agrario de Castilla y León	Valladolid	Spain
2	University of Natural Resources and Applied Life Sciences	Vienna	Austria
3	National Institute of Meteorology and Hydrology ? Bulgarian Academy of Sciences	Sofia	Bulgaria

Global change and ecosystems

NATURNET-REDIME

4074

Project URL http://naturnet.org/

Title:	New Education and Decision Support Model for Active Behaviour in Sustainable Development Based on Innovative Web Services and Qualitative Reasoning		
Area:	Cross-cutting issue: Sustainable Development concepts and tools - Education programmes		
Instrument:	Specific Targeted Research Project (STREP)		
Project total cost:	2.384.720 €	Contract start date:	
EU contribution:	1.900.000 €	Duration:	30 months
Organisation:	Ceske Centrum pro Strategicka Studia	Praha 7 - Czech Republic	
Co-ordinator:	Dr. Karel CHARVAT		

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

Nb	Organisation	Town	Country
1	Ceske Centrum pro Strategicka Studia	Praha 7	Czech Republic
2	ENVIRONMENTAL NETWORK LIMITED	Aboyne	United Kingdom
3	Albert-Ludwigs-Universitaet Freiburg	Freiburg	Germany
4	Comune di Francavilla di Sicilia	Francavilla Di Sicilia (Me)	Italy
5	Gymnazium Bozeny Nemcove	Hradec Kralove	Czech Republic
6	INNOVATION. Grenzüberschreitendes Netzwerk fur euroregionale Bildung und Entwicklung e.V.	Dresden	Germany
7	LATVIJAS UNIVERSITATES MATEMATIKAS UN INFORMATIKAS INSTITUTS	Riga	Latvia
8	JOANNEUM RESEARCH FORSCHUNGSGESELLSCHAFT MBH	Graz	Austria
9	KRIMULDAS PAGASTA PADOME	Ragana	Latvia
10	APIF MOVIQUITY S.A.	Madrid	Spain
11	Societe - Informatique Telematique Corso	Ajaccio	France
12	Hydromelioracie, s.p.	Bratislava	Slovakia
13	Kraj Vysocina	Jihlava	Czech Republic
14	Friedrich-Schiller-University in Jena	Jena	Germany
15	Universiteit van Amsterdam	Amsterdam	Netherlands
16	Zentralna Laboratoriya po Obschta Ekologiya	Sofia	Bulgaria
17	INSTITUTUL NATIONAL DE CERCETARE DEZVOLTARE DELTA DUNARII	Tulcea	Romania
18	FUNDAÇAO UNIVERSIDADE DE BRASÍLIA	Brasilia - Df	Brazil
19	University of Hull	Hull	United Kingdom
20	BOKU - Universität für Bodenkultur Wien	Vienna	Austria

Global change and ecosystems

EUROWET

505586

Project URL http://eurowet.brgm.fr/

Title:	Integration of European Wetland research in a sustainable management of water cycle		
Area:	Specific Support Actions - Consolidating knowledge on the role of wetlands in the water cycle.		
Instrument:	Specific Support Action (SSA)		
Project total cost:	529.958 €	Contract start date:	1/01/2004
EU contribution:	529.958 €	Duration:	12 months
Organisation:	BUREAU DE RECHERCHES GEOLOGIQUES ET MINIERES	Paris - France	
Co-ordinator:	Dr. Philippe NEGREL		

Abstract

The final goal of the EUROWET project is to integrate the substantial multidisciplinary European research in wetlands to help attain the sustainable management of the water cycle. This will be achieved by the translation of state-of-the art science developed at both national and European levels, into practical guidance for end-users. This will be achieved by a comprehensive review, expert assessment and a focussed dissemination strategy. There is considerable scientific knowledge and technical experience gained in diverse aspects of wetland science and management including hydrology, biogeochemistry, ecology restoration, socio-economic and policy analysis. However the results of research and management experience are still too fragmentary and not sufficiently orientated to problem-solving or simply inadequately framed to be effectively transferred to, or used by, stakeholders and policy-makers. Simultaneously the general outcome of the scientific research has been increased awareness of the significance of wetlands in delivering goods and services important for human welfare including quality of life, biodiversity conservation and maintenance or enhancement of environment quality. Despite this wetlands continue to be degraded and lost throughout Europe without adequate consideration of the wider benefits to be achieved from this management. The new Water Framework Directive (WFD) promotes a unique opportunity to redress this problem by means of the holistic, integrated approach to water management. There is currently in preparation horizontal guidance on Wetlands as part of the Common Implementation Strategy (CIS) process. There is however work still to be done on providing more specific scientific and technical guidance on the effective implementation of the Directive with respect to wetlands. This is particularly the case in relation to Integrated River Management, the CIS cluster within which wetlands are being considered in the WFD.

Partners

Nb	Organisation	Town	Country
1	BUREAU DE RECHERCHES GEOLOGIQUES ET MINIERES	Paris	France
2	ROYAL HOLLOWAY AND BEDFORD NEW COLLEGE	Egham, Surrey	United Kingdom

Global change and ecosystems

KASSA

505582

Project URL http://kassa.cirad.fr/

Title:	Knowledge Assessment and Sharing on Sustainable Agriculture		
Area:	Specific Support Actions - Capitalisation of results from the past research on sustainable agriculture		
Instrument:	Specific Support Action (SSA)		
Project total cost:	906.700 €	Contract start date:	1/09/2004
EU contribution:	750.000 €	Duration:	18 months
Organisation:	CENTRE DE COOPERATION INTERNATIONALE EN RECHERCHE AGRONOMIQUE POUR LE DEVELOPPEMENT	Paris - France	
Co-ordinator:	Mr FRANCIS FOREST		

Abstract

Conventional agriculture encompasses about half of the agricultural land territory of the UE countries; its negative impacts on the environment and the basic natural resources are recognised. Growing concerns of the society related to the environment deterioration such as water and food contaminations, livestock epidemics... compel to explore new ways able to improve the sustainability of the current farming systems. Alternative agricultural practices, technologies and approaches in support of sustainable agriculture have already been researched, developed, tested and implemented during the second half of the 20th century, in Europe but mainly in North and South America and Australia; they span million hectares. Learning from the results of theses experiences and researches and sharing lessons will undoubtedly contribute to define ways and tools able to orient European policy on sustainable agriculture development. KASSA proposal intends to build up a comprehensive knowledge base on sustainable agricultural practices, approaches and systems in support of European stakeholders: farmers and professionals, researchers and policy makers at local, national, European and global level. KASSA involves a critical mass of skilled partners dispatched up into four platforms: Europe, the Mediterranean, Asia and Latin America. It will be achieved through successive work sequences starting with a comprehensive inventory of existing results then continuing with a progressive refinement of the findings that alternate critical analysis and sharing of the results of each platform.

Partners

Nb	Organisation	Town	Country
1	CENTRE DE COOPERATION INTERNATIONALE EN RECHERCHE AGRONOMIQUE POUR LE DEVELOPPEMENT	Paris	France
2	INSTITUT NATIONAL DE LA RECHERCHE AGRONOMIQUE	Paris	France
5	FONDATION NATIONALE POUR UNE AGRICULTURE DE CONSERVATION DES SOLS	Genainville	France
6	DEN KONGELIGE VETERINAER- OG LANDBOHOEJSKOLE	Frederiksberg C.	Denmark
9	JUSTUS-LIEBIG-UNIVERSITAET GIESSEN	Giessen	Germany
10	LEIBNIZ-ZENTRUM FUER AGRARLANDSCHAFTS- UND LANDNUTZUNGSFORSCHUNG e.V.	Muencheberg	Germany
11	NORSK INSTITUTT FOR PLANTEFORSKING	Aas	Norway
12	ENVIRONMENTAL NETWORK LIMITED	Aboyne	United Kingdom
13	EESTI POLLUMAJANDUSUELIKOOL	Tartu	Estonia
14	VYZKUMNY USTAV ROSTLINNE VYROBY	Prague	Czech Republic
15	NATIONAL SCIENTIFIC CENTRE "INSTITUTE FOR SOIL SCIENCE AND AGROCHEMISTRY RESEARCH"	Kharkiv	Ukraine
16	CONSEJO SUPERIOR DE INVESTIGACIONES CIENTIFICAS	Madrid	Spain
17	UNIVERSIDAD DE LLEIDA	Lerida	Spain
18	INSTITUTO TECNOLOGICO AGRARIO DE LA JUNTA DE CASTILLA Y LEON	Valladolid	Spain
19	INSTITUTO NACIONAL DE INVESTIGACION Y TECHNOLOGIA AGRARIA Y ALIMENTARIA	Madrid	Spain
20	INSTITUTO TECNICO Y DE GESTION AGRICOLA S.A.	Villava (Navarra)	Spain
21	INSTITUT NATIONAL DE LA RECHERCHE AGRONOMIQUE.	Rabat R.P.	Morocco
22	CENTRO INTERNAZIONALE CROCEVIA	Roma	Italy
23	NATIONAL AGRICULTURAL RESEARCH FOUNDATION	Athens	Greece
24	CENTRO INTERNATIONAL DE MEJOMIENTO DE MAIZ Y TRIGO	Mexico Df	Mexico
27	CENTRE FOR ADVANCEMENT OF SUSTAINABLE AGRICULTURE	New Delhi	India
28	VIETNAM AGRICULTURAL SCIENCE INSTITUTE	Ha Noi	Viet Nam
29	INSTITUTO AGRONIMICO DO PARANA	Londrina	Brazil

30	FUNDACAO DE APOIO AO ENSINO, PESQUISA E EXTENSAO	Lavras-Mg	Brazil
31	UNIVERSIDADE FEDERAL DE GOIAS	Goiania - Goias	Brazil
32	EMPRESA BRASILEIRA DE PESQUISA AGROPECUARIA -CENTRO NACIONAL DE PESQUISA DE TRIGO	Passo Fundo Rs	Brazil
33	ASOCIACION DE PRODUCTORES DE OLEAGINOSAS Y TRIGO	Santa Cruz De La Sierra	Bolivia
35	ASOCIACION ARGENTINA DE PRODUCTORES EN SIEMBRA DIRECTA	Rosario	Argentina

Title:	Background cRiteria for the IDentification of Groundwater thrEsholds		
Area:	Sustainable Management of Europe's natural resources - Environmental assessment		
Instrument:	Specific Targeted Research Project (STREP)		
Project total cost:	2.963.086 €	Contract start date:	
EU contribution:	1.876.825 €	Duration:	24 months
Organisation:	BUREAU DE RECHERCHES GEOLOGIQUES ET MINIERES	Paris - France	
Co-ordinator:	Dr. Anne Marie FOUILLAC		

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 : i) to study and gather scientific outputs which could be used to set out criteria for the assessment of the chemical status of groundwater, ii) 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, iii) to check the applicability and validity by means of case studies at European scale, iv) to undertake additional research studies to complete the available data,v) and 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

Nb	Organisation	Town	Country
1	BUREAU DE RECHERCHES GEOLOGIQUES ET MINIERES	Paris	France
2	UMWELTBUNDESAMT GMBH	Wien	Austria
3	THE CHANCELLOR, MASTERS AND SCHOLARS OF THE UNIVERSITY OF OXFORD	Oxford	United Kingdom
5	UNIVERSITEIT GENT	Gent	Belgium
6	BUDAPESTI MUSZAKI ES GAZDASAGTUDOMANYI EGYETEM	Budapest	Hungary
7	UNIVERSITE DE LIEGE	Liège	Belgium
8	VLAAMSE INSTELLING VOOR TECHNOLOGISCH ONDERZOEK N.V	Mol	Belgium
9	Danish Environmental Protection Agency	Copenhagen	Denmark
10	Danmarks og Grønlands Geologiske Undersøgelse	Copenhagen	Denmark
11	ACTeon	Orbey	France
12	UMWELTBUNDESAMT	Berlin	Germany
13	HESSISCHES LANDESAMT FUER UMWELT UND GEOLOGIE	Wiesbaden	Germany
14	INSTITUTO GEOLÓGICO Y MINERO DE ESPAÑA	Madrid	Spain
15	ENVIRONMENT AGENCY	Almondsbury , Bristol	United Kingdom
16	SUOMEN YMPARISTOKESKUS	Helsinki	Finland
17	NATIONAL AGRICULTURAL RESEARCH FOUNDATION	Maroussi-Athens	Greece
18	AUTORITA DI BACINO DEL FIUME TEVERE	Roma	Italy
19	FORSCHUNGSZENTRUM JUELICH GMBH	Juelich	Germany
20	NEDERLANDSE ORGANISATIE VOOR TOEGEPAST NATUURWETENSCHAPPELIJK ONDERZOEK-TNO	Delft	Netherlands
21	UNIVERSIDADE DE AVEIRO	Aveiro	Portugal
22	LIETUVOS GEOLOGIJOS TARNYBA	Vilnius	Lithuania
23	VRIJE UNIVERSITEIT AMSTERDAM	Amsterdam	Netherlands
24	EXECUTIVE ENVIRONMENT AGENCY - Bulgaria	Sofia	Bulgaria
25	TARTU UELIKOOL	Tartu	Estonia

26	APPLICATION EUROPEENNE DE TECHNOLOGIES ET DE SERVICES	Artigues Pres Bordeaux	France
27	AKADEMIA GORNICZO-HUTNICZA	Krakow	Poland
28	OFFICE INTERNATIONAL DE L'EAU	Paris	France

Title:	Relationships between ecological and chemical status of surface waters		
Area:	Sustainable Management of Europe's natural resources - Environmental assessment		
Instrument:	Specific Targeted Research Project (STREP)		
Project total cost:	7.445.996 €	Contract start date:	1/12/2003
EU contribution:	3.997.952 €	Duration:	36 months
Organisation:	SUOMEN YMPARISTOKESKUS	Helsinki - Finland	
Co-ordinator:	Dr Seppo Rekolainen		

Abstract

The strategic objective of the REBECCA proposal is to provide relevant scientific support for the implementation of the Water Framework Directive (WFD). The two specific aims of the project are, firstly, to establish links between ecological status of surface waters and physico-chemical quality elements and pressures from different sources, and, secondly, to develop and validate tools that member states can use in the process of classification, in the design of their monitoring programs, and in the design of measures in accordance with the requirements of the WFD. These objectives will be achieved by collating existing knowledge and analyzing knowledge gaps, and using this information as a basis for analyzing the dose-response relationships between pressures and chemical/biological quality elements based on existing data. Furthermore, REBECCA will explore, develop and improve models and statistical tools, which can be used in assessing the links between the ecological and chemical quality elements; or to assess critical/target loads and other objectives for pressures. These tools will be validated in selected test sites. The results of the project will be disseminated throughout the project life-time to stakeholders at EU and national levels, particularly to the Working Groups of the Common Implementation Strategy (CIS) for the WFD, and used to develop a Toolbox containing detailed information of the methods, tools and models.

Partners

Nb	Organisation	Town	Country
1	SUOMEN YMPARISTOKESKUS	Helsinki	Finland
2	COMMISSION OF THE EUROPEAN COMMUNITIES - DIRECTORATE GENERAL JOINT RESEARCH CENTRE	Bruxelles	Belgium
3	NORSK INSTITUTT FOR VANNFORSKNING	Oslo	Norway
4	DANMARKS MILJOEUNDERSOEGELSER	Roskilde	Denmark
5	DHI - INSTITUT FOR VAND OG MILJOE	Hoersholm	Denmark
6	STICHTING WATERLOOPKUNDIG LABORATORIUM	Delft	Netherlands
7	NATURAL ENVIRONMENT RESEARCH COUNCIL	Swindon	United Kingdom
8	CENTRE NATIONAL DU MACHINISME AGRICOLE, DU GENIE RURAL, DES EAUX ET DES FORETS	Antony	France
9	CONSIGLIO NAZIONALE DELLE RICERCHE	Roma	Italy
10	IVL SVENSKA MILJOEINSTITUTET AB	Stockholm	Sweden
11	THE PROVOST, FELLOWS AND SCHOLARS OF THE COLLEGE OF THE HOLY AND UNDIVIDED TRINITY OF QUEEN ELIZABETH NEAR DUBLIN HEREINAFTER TRINITY COLLEGE DUBLIN	Dublin	Ireland
12	SLOVENSKY HYDROMETEOROLOGICKY USTAV	Bratislava	Slovakia
13	INSTITUTO NACIONAL DE INVESTIGACAO AGRARIA E DAS PESCAS / IPIMAR	Lisboa	Portugal
14	UNIVERSITEIT ANTWERPEN / UNIVERSITAIRE INSTELLING ANTWERPEN	Wilrijk	Belgium
15	INSTITUTUL NATIONAL DE CERCETARE DEZVOLTARE DELTA DUNARII	Tulcea	Romania
16	STIFTELSEN NORSK INSTITUTT FOR NATURFORSKNING	Trondheim	Norway
17	RIJKSINSTITUUT VOOR INTEGRAAL ZOETWATERBEHEER EN AFVALWATERBEHANDELING	Lelystad	Netherlands
18	TALLINNA TEHNIKA UELIKOOL	Tallinn	Estonia
19	SVERIGES LANTBRUKSUNIVERSITET	Uppsala	Sweden

Scientific support to policies

HORIZONTAL-ORG

502411

Project URL http://www.ecn.nl/HORIZONTAL

Title:	Horizontal Standards on Organic Micropollutants for Implementation of EU Directives on Sludge, Soil and Treated Bio-waste		
Area:	Sustainable Management of Europe's natural resources - Environmental assessment		
Instrument:	Specific Targeted Research Project (STREP)		
Project total cost:	2.674.949 €	Contract start date:	1/10/2003
EU contribution:	1.627.652 €	Duration:	36 months
Organisation:	ENERGIEONDERZOEK CENTRUM NEDERLAND	Petten - Netherlands	
Co-ordinator:	Dr. Hans A. Van der Sloot		

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 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 BT Task Force specially set up in for this project and direct supervision by DG ENV and MS, which form the Steering Committee of HORIZONTAL. HORIZONTAL-ORG's objective is to produce standardised methods for sampling and analysing organic micropollutants in sludges, treated biowastes and soils written in CEN format. Where possible 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

Nb	Organisation	Town	Country
1	ENERGIEONDERZOEK CENTRUM NEDERLAND	Petten	Netherlands
2	COMMISSION OF THE EUROPEAN COMMUNITIES - DIRECTORATE GENERAL JOINT RESEARCH CENTRE	Bruxelles	Belgium
4	UNIVERSITY OF READING	Reading	United Kingdom
5	CONSEJO SUPERIOR DE INVESTIGACIONES CIENTIFICAS	Madrid	Spain
6	INSTYTUT UPRAWY, NAWOZENIA I GLEBOZNAWSTWA	Pulawy	Poland
7	UMWELTBUNDESAMT	Berlin	Germany
8	EUROFINS DANMARK A/S	Galten	Denmark
9	EUROFINS A/S	Galten	Denmark
10	BUNDESANSTALT FUER MATERIALFORSCHUNG UND -PRUEFUNG	Berlin	Germany
11	ALTERRA B.V.	Wageningen	Netherlands
12	GIE ANJOU - RECHERCHE	Paris	France
13	UMWELTBUNDESAMT GMBH	Wien	Austria
14	DIN DEUTSCHES INSTITUT FUER NORMUNG E.V.	Berlin	Germany
15	TIM EVANS ENVIRONMENT	Ashtead	United Kingdom
16	FODOR JOZSEF ORSZAGOS KOZEGESZSEGUGYUI KOZPONT ORSZAGOS KOZEGESZSEGUGYUI INTEZET	Budapest	Hungary
17	VYSKUMNY USTAV PODOZNALECTVA A OCHRANY PODY	Bratislava	Slovakia

Title:	Screening method for Water data Information in support of the implementation of the Water Framework Directive		
Area:	Sustainable Management of Europe's natural resources - Environmental assessment		
Instrument:	Specific Targeted Research Project (STREP)		
Project total cost:	6.735.725 €	Contract start date:	1/01/2004
EU contribution:	4.034.000 €	Duration:	36 months
Organisation:	ASSOCIATION POUR LA RECHERCHE ET LE DEVELOPPEMENT DES METHODES ET PROCESSUS INDUSTRIELS	Paris - France	
Co-ordinator:	Mme Catherine GONZALEZ		

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 th 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

Nb	Organisation	Town	Country
1	ASSOCIATION POUR LA RECHERCHE ET LE DEVELOPPEMENT DES METHODES ET PROCESSUS INDUSTRIELS	Paris	France
2	UNIVERSITY OF PORTSMOUTH HIGHER EDUCATION CORPORATION	Portsmouth	United Kingdom
3	ENTE PER LE NUOVE TECNOLOGIE, L' ENERGIA E L'AMBIENTE	Roma	Italy
4	BUREAU DE RECHERCHES GEOLOGIQUES ET MINIERES	Paris	France
5	ECOLOGIC - INSTITUT FUER INTERNATIONALE UND EUROPAEISCHE UMWELTPOLITIK gGmbH	Berlin	Germany
6	CONSEJO SUPERIOR DE INVESTIGACIONES CIENTIFICAS	Madrid	Spain
7	ALCONTROL UK Ltd	Rotherham	United Kingdom
8	UNIVERSIDAD COMPLUTENSE DE MADRID	Madrid	Spain
9	MERMAYDE	Bergen	Netherlands
10	CHALMERS TEKNISKA HOGSKOLA AB	Goeteborg	Sweden
11	VESZPREMI EGYETEM	Veszprem	Hungary
12	LGC Ltd	Teddington Middlesex	United Kingdom
13	ACTEON	Orbey	France
14	VRIJE UNIVERSITEIT BRUSSEL	Bruxelles	Belgium
15	UNIVERSIDADE DE AVEIRO	Aveiro	Portugal
16	UNIVERSITAT DE BARCELONA	Barcelona	Spain
17	NETHERLANDS INSTITUTE FOR FISHERIES RESEARCH	Ijmuiden	Netherlands
18	UNIVERSITY OF SOFIA "ST. KLIMENT OHRIDSKI"	Sofia	Bulgaria
19	TECHNISCHE UNIVERSITAET WIEN	Wien	Austria
20	SCIENCES, TERRITOIRES ET SOCIETES	Montpellier	France
21	COMMISSION OF THE EUROPEAN COMMUNITIES - DIRECTORATE GENERAL JOINT RESEARCH CENTRE	Bruxelles	Belgium
22	SZENT ISTVAN EGYETEM	Godollo	Hungary

23	CENTRE NATIONAL DE LA RECHERCHE SCIENTIFIQUE	Paris	France
24	UNIVERSIDAD DE OVIEDO	Oviedo	Spain
25	LITHOS GEOSCIENCES	Ranco Va	Italy
26	UNIVERSITE DE BORDEAUX I	Talence	France
27	RIJKSINSTITUUT VOOR INTEGRAAL ZOETWATERBEHEER EN AFVALWATERBEHANDELING	Lelystad	Netherlands
28	STATE GEOLOGICAL INSTITUTE OF DIONYZ STUR	Bratislava	Slovakia
29	TECHNISCHE UNIVERSITAET GRAZ	Graz	Austria
30	CESKA ZEMEDELSKA UNIVERSZITA V PRAZE	Praha 6 - Suchdol	Czech Republic
31	POLITECHNIKA WARSZAWSKA	Warszawa	Poland
32	ASSOCIAZIONE PER LO SVILUPPO DELLA QUALITA AMBIENTALE	Roma	Italy
33	XPRO CONSULTING Ltd	Nicosia	Cyprus
34	TECHNISCHE UNIVERSITAET MUENCHEN	Muenchen	Germany
35	SECOMAM	Domont	France
36	INSTITUTUL NATIONAL DE CERCETARE - DEZVOLTARE PENTRU PROTECTIA MEDIULUI	Bucuresti	Romania
37	POVODI LABE, S. P.	Hradec Kralove	Czech Republic
38	LATVIJAS UNIVERSITATE	Riga	Latvia
39	LATVIJAS VIDES AGENTURA	Jurmala	Latvia
40	AQUAMETRIS	Liverdum	France

Title:	Improved Methods for the Assessment of the Generic Impact of Noise in the Environment		
Area:	Sustainable Management of Europe's natural resources - Environmental assessment		
Instrument:	Specific Targeted Research Project (STREP)		
Project total cost:	4.374.400 €	Contract start date:	1/12/2003
EU contribution:	2.390.000 €	Duration:	36 months
Organisation:	AEA TECHNOLOGY RAIL BV	Utrecht - Netherlands	
Co-ordinator:	Mr. Robert Degenhart		

Abstract

For the production of strategic noise maps as required under the EU Directive 2002/49/EC, improved assessment methods for environmental noise will be required. Noise from any major source, be it major roads, railways, airports or industrial activities in agglomerations, needs to be included in the noise mapping. For road and rail, improved methods will be developed in the 5th frame work Harmonoise project. These methods will be adopted to develop methods for aircraft and industrial noise in the IMAGINE project proposed here. Noise source databases to be developed in IMAGINE for road and rail sources will allow a quick and easy implementation of the methods in all member states. Measured noise levels can add to the quality of noise maps because they tend to have better credibility than computed levels. In the project proposed here, guidelines for monitoring and measuring noise levels will be developed, that can contribute to a combined product (measurement and computation) that has high quality and high credibility. Noise action plans shall be based on strategic noise maps. The IMAGINE project will develop guidelines for noise mapping that will make it easy and straightforward to assess the efficiency of such action plans. Traffic flow management will be a key element of such action plans, both on a national and a regional level. Noise mapping will be developed into a dynamic process rather than a static presentation of the situation. IMAGINE will provide the link between Harmonoise and the practical process of producing noise maps and action plans. It will establish a platform where experts and end users can exchange their experience and views. This platform should continue after the project and provide a basis for exploitation to the IMAGINE results.

Partners

Nb	Organisation	Town	Country
1	AEA TECHNOLOGY RAIL BV	Utrecht	Netherlands
2	AEA TECHNOLOGY PLC	Didcot, Oxfordshire	United Kingdom
3	ANOTEC CONSULTING, S.L.	Arroyomolinos	Spain
4	AGENZIA REGIONALE PER LA PROTEZIONE AMBIENTALE DELLA TOSCANA	Firenze	Italy
5	AUTOSTRADE PER L' ITALIA S.p.A.	Roma	Italy
6	BOEING RESEARCH & TECHNOLOGY CENTER	Madrid	Spain
7	BUDAPESTI MUSZAKI ES GAZDASAGTUDOMANYI EGYETEM	Budapest	Hungary
8	CENTRE SCIENTIFIQUE ET TECHNIQUE DU BATIMENT	Paris	France
9	DEBAKOM	Odenthal	Germany
10	DGMR RAADGEVENDE INGENIEURS BV	Den Haag	Netherlands
11	ELECTRICITE DE FRANCE	Paris	France
12	EIDGENOESSISCHE MATERIALPRUEFUNGS- UND FORSCHUNGSANSTALT	Duebendorf	Switzerland
13	EUROCONTROL - EUROPEAN ORGANISATION FOR THE SAFETY OF AIR NAVIGATION	Bruxelles	Belgium
14	COMMISSION OF THE EUROPEAN COMMUNITIES - DIRECTORATE GENERAL JOINT RESEARCH CENTRE	Bruxelles	Belgium
15	KILDE AKUSTIKK AS	Voss	Norway
16	FUNDACION LABEIN	Bilbao	Spain
18	LEICESTER CITY COUNCIL	Leicester	United Kingdom
19	M+P RAADGEVENDE INGENIEURS BV	Aalmeer	Netherlands
20	MUELLER-BBM GmbH	Planegg	Germany
21	SP SVERIGES PROVNINGS- OCH FORSKNINGSINSTITUT	Boras	Sweden
22	TRANSPORT & MOBILITY LEUVEN	Leuven	Belgium
23	NEDERLANDSE ORGANISATIE VOOR TOEGEPAST NATUURWETENSCHAPPELIJK	Delft	Netherlands
24	TRL LIMITED	Crowthorne	United Kingdom

25	POLITECHNIKA GDANSKA	Gdansk	Poland
26	UNIVERSITEIT GENT	Gent	Belgium
27	UNIVERSITY OF LEEDS	Leeds	United Kingdom
28	VOLVO LASTVAGNAR AB	Goeteborg	Sweden

Scientific support to policies

VIROBATHE

513648

Project URL http://www.virobathe.org

Title:	METHODS FOR THE CONCENTRATION AND DETECTION OF ADENOVIRUSES AND NOROVIRUSES IN EUROPEAN BATHING WATERS WITH REFERENCE TO THE REVISION OF THE BATHING WATER DIRECTIVE 76/160/EEC		
Area:	Sustainable Management of Europe's natural resources - Environmental assessment		
Instrument:	Specific Targeted Research Project (STREP)		
Project total cost:	2.847.858 €	Contract start date:	
EU contribution:	2.247.624 €	Duration:	27 months
Organisation:	University College of Wales Aberystwyth	Aberystwyth - United Kingdom	
Co-ordinator:	Prof. David Victor Kay		

Abstract

The Project will provide a procedure for analysis of EU bathing waters for noroviruses and adenoviruses by validated comparisons of methods for processing water samples to achieve the best virus recovery consistent with cost and feasibility of use in routine monitoring laboratories. Objectives are (a) compare methods fornorovirus and adenovirus detection in recreational waters (b) derive a combination of concentration and detection techniques to provide a reproducible system of testing bathing waters for the target viruses (c) furnish scientific evidence to provide support for norovirus and adenovirus testing of environmental samples in respect of their role as the appropriate viral indicator of faecal pollution (c) prepare the technology for Accession States as part of the development of their environmental and social programmes (d) share technology between laboratories to achieve wider competence in the virological analysis of environmental materials. Detection by PCR and cell culture together with the concentration procedure will provide a combined technique. PCR products will be sequenced and data analysed to derive strain and serotype information.The work addresses the research objectives of SSP 8.1 task 1.5 directly through relevance to the revision of the Bathing Water Directive. Inter-Laboratory comparisons and a large field based surveillance Phase are integrated to ensure that the new combined method will have immediate applicability in EU bathing water monitoring. It will be done by 16 Participant Laboratories in a unified approach to derive a harmonised combined method to provide credibility for future monitoring regimes give the potential to place a virus parameter on a footing equal to the bacterial indicators. Inclusion of Laboratories representative of the Accession States will ensure rapid dissemination to enhance the monitoring of their bathing waters and thus sustain the development of their own tourism and that of the European tourism worldwide.

Partners

Nb	Organisation	Town	Country
1	University College of Wales Aberystwyth	Aberystwyth	United Kingdom
2	Università di Pisa	Pisa	Italy
3	Central Science Laboratory	London	United Kingdom
4	Rijksinstituut voor Volksgezondheid en Milieu	Bilthoven	Netherlands
5	UNIVERSITA DEGLI STUDI DI ROMA TOR VERGATA	Rome	Italy
6	Landesgesundheitsamt Baden-Württemberg	Stuttgart	Germany
7	Université Henri Poincaré - Nancy	Nancy	France
8	Environment Agency	Bristol	United Kingdom
9	Universitat de Barcelona	Barcelona	Spain
10	Bayerisches Landesamt für Gesundheit und Lebensmittelsicherheit	Erlangen	Germany
11	Umweltbundesamt (German Environmental Agency)	Berlin	Germany
12	PANSTWOWY INSTYTUT WETERYNARYJNY - PANSTWOWY INSTYTUT BADAWCZY W PULAWACH	Pulawy	Poland
13	ISTITUTO SUPERIORE DI SANITA	Roma	Italy
14	Faculdade de Farmacia da Universidade do Porto	Porto	Portugal
15	STATE GENERAL LABORATORY	Nicosia	Cyprus
16	Health Protection Agency	London	United Kingdom

Title:	Development of Environmental Performance Indicators for ICT Products on the example of Personal Computers		
Area:	Sustainable Management of Europe's natural resources - Environmental assessment		
Instrument:	Specific Targeted Research Project (STREP)		
Project total cost:	914.185 €	Contract start date:	1/11/2004
EU contribution:	585.383 €	Duration:	18 months
Organisation:	Universitaet Stuttgart	Stuttgart - Germany	
Co-ordinator:	Niels Warburg		

Abstract

EPIC-ICT will define environmental performance indicators for ICT products at the example of PCs. The indicators will relate to easy to define product properties, e.g. clock rate, energy demand etc., and are based on environmental impacts defined with LCA based on available technical specification of PCs and of its functions and components. Key method for the development of the indicators in EPIC-ICT will be Life Cycle Assessment (LCA). EPIC-ICT will - consider all life cycle phases and all relevant environmental impacts - contribute to the reduction of environmental impacts of ICT equipment as foreseen in IPP and therefore promote the sustainability of ICT products - establish a basis for a future directive on EUP - contribute to the Kyoto protocol and 6th Environment Action Programme - consider the viewpoints of manufacturers and regulators as well as environmental NGOs and other stakeholders of society A both effective and efficient method is therefore needed - combining scientific soundness, public acceptance and practical applicability (data demand, effort, concrete decision support) at the same time. Main key points are: 1) Identification of PC functions and customer demands (e.g. memory, performance, reliability) and of PC components and life cycle properties (e.g. kind of graphic card, power demand). 2) Translation of 1) into electronic specifics based on technical and physical units (e.g. size and number of layers and kind of substrates, PWB, etc.), based on "house of quality" known from Quality Function Deployment (QFD). 3) Application of available "Generic Modules" for LCA modelling with a minimum on effort (Generic Modules are pre- defined flexible and representative models). 4) Environmental evaluation and recursion/reference to definitions in 1) and 2). 5) Identification of most relevant indicators by variation of 1) and 2) and recalculation of environmental results. Transfer to other ICT products

Partners

Nb	Organisation	Town	Country
1	Universitaet Stuttgart	Stuttgart	Germany
2	Motorola GmbH	Taunusstein	Germany
3	Philips Electronics Nederland B.V.	Eindhoven	Netherlands
4	Ambiente Italia srl	Milano	Italy
5	Dell Products Europe B.V.	Amsterdam	Netherlands
6	PE Europe	Leinfelden-Echterdingen	Germany

Scientific support to policies

SALTCONTROL

501571

Project URL http://www.saltcontrol-eu.net/

Title:	Prevention of salt damage to the built cultural heritage by the use of crystallisation inhibitors		
Area:	Underpinning the economical potential and cohesion of a larger and more integrated European Union - The protection of cultural heritage and associated conservation strategies		
Instrument:	Specific Targeted Research Project (STREP)		
Project total cost:	1.769.300 €	Contract start date:	1/01/2004
EU contribution:	1.454.899 €	Duration:	36 months
Organisation:	UNIVERSITEIT GENT	Gent - Belgium	
Co-ordinator:	Prof. Patric Jacobs		

Abstract

The project aims to develop a new method for the prevention of salt damage, based on the use of compounds that inhibit the growth of salt crystals. When inhibitors are applied, salt crystallisation within the pores of stones is prevented, allowing the salts to form as non-disruptive efflorescences along the stone surface. The effects of crystallisation inhibitors will be evaluated in different ways, ranging from atomic scale studies to macro-scale crystallisation tests and site trials, to evaluate the possibilities, limits and risks of their use in this new field ofapplication for these products. The use of these inhibitors as a conservation method in the field of cultural heritage requires a profound understanding of the mechanisms and factors that determine the development of salt damage. Hence, several important aspects of salt formation will be investigated, by experiments with and without added inhibitors : (i) the relationship between porosity, threshold supersaturation and salt damage, (ii) the mechanisms of transport of moisture and ions during drying and crystallisation, and (iii) the influence of environmental conditions, including temperature, relative humidity and air speed. The final outcome of the project is the formulation of a tested reliable procedure for the use of crystallisation inhibitors in conservation.

Partners

Nb	Organisation	Town	Country
1	UNIVERSITEIT GENT	Gent	Belgium
2	NEDERLANDSE ORGANISATIE VOOR TOEGEPAST NATUURWETENSCHAPPELIJK-TNO	Delft	Netherlands
3	RIJKSDIENST VOOR DE MONUMENTENZORG	Zeist	Netherlands
4	REMMERS BOUWCHEMIE B.V.	Hoogeveen	Netherlands
5	STICHTING FEDERATIE MONUMENTENWACHT NEDERLAND	Amersfoort	Netherlands
6	UNIVERSIDAD DE GRANADA	Granada	Spain
7	CONSEJERIA DE CULTURA DE LA JUNTA DE ANDALUCIA	Sevilla	Spain
8	FOUNDATION FOR RESEARCH AND TECHNOLOGY HELLAS	Heraklion	Greece
9	WESTFAELISCHE WILHELMS - UNIVERSITAET MUENSTER	Muenster	Germany
10	TECHNISCHE UNIVERSITEIT EINDHOVEN	Eindhoven	Netherlands
11	CESKE VYSOKE UCENI TECHNIKE V PRAZE	Praha 6	Czech Republic
12	NARODNI PAMATKOVY USTAV	Prague	Czech Republic
13	UNIVERSITY COLLEGE LONDON	London	United Kingdom

Title:	Assessment of Air Pollution Effects on Cultural Heritage - Management Strategies		
Area:	Underpinning the economical potential and cohesion of a larger and more integrated European Union - The protection of cultural heritage and associated conservation strategies		
Instrument:	Specific Targeted Research Project (STREP)		
Project total cost:	1.686.950 €	Contract start date:	1/08/2004
EU contribution:	1.032.500 €	Duration:	36 months
Organisation:	KORROSIONSINSTITUTET SCI AB	Stockholm - Sweden	
Co-ordinator:	Dr. Vladimir Kucera		

Abstract

CULT-STRAT will establish a scientific reference for developing strategies for policy and decision-makers on European and national levels within the CAFE Programme and for heritage managers for strategic decisions at a local level. It will do this through a choice of material indicators and pollution threshold levels based on best available scientific data including deterioration models, spatial distribution and mapping of pollutants and of stock of materials at risk, cost estimates, comparison studies off different conservation approaches. Damage caused to objects of cultural heritage belongs to the most serious among the detrimental effects of anthropogenic air pollutants as it endangers a vital part of the European identity. There is therefore an urgent need to include the impact of pollutants on cultural heritage alongside the human health and parts of the ecosystem that are already concerned in the EU Directives on urban air quality. This is especially relevant for the CAFE (Clean Air for Europe) programme of the Commission and the Community interventions through the "Culture 2000" framework programme and the structural funds. The overall aim is to identify material indicators and threshold levels of pollutants to be used for development of strategies for sustainable maintenance and preventive conservation of European cultural heritage and air quality policy to reduce damage. The models will permit ranking of the effects of pollutants on corrosion and soiling of materials. The air pollution models will be related to local fluxes, including indoor concentrations. The stock of cultural heritage materials at risk in selected areas (Paris, Rome, Florence, Prague, Madrid, and Berlin) will be used for assessment and mapping of areas where cultural heritage objects are endangered. The life cycles and costs for cultural heritage materials at different pollution scenarios will serve as economic components in the process of selection #

Partners

Nb	Organisation	Town	Country
1	KORROSIONSINSTITUTET SCI AB	Stockholm	Sweden
2	NORSK INSTITUTT FOR LUFTFORSKNING	Kjeller	Norway
3	ENTE PER LE NUOVE TECNOLOGIE, L' ENERGIA E L'AMBIENTE	Roma	Italy
4	MIDDLESEX UNIVERSITY HIGHER EDUCATION CORPORATION	London	United Kingdom
5	UMWELTBUNDESAMT	Berlin	Germany
6	UNIVERSITE PARIS XII - VAL DE MARNE	Creteil	France
7	USTAV TEORETICKE A APLIKOVANE MECHANIKY, AKADEMIE VED CESKE REPUBLIKY	Praha 9	Czech Republic
8	BUILDING RESEARCH ESTABLISHMENT LTD	Watford	United Kingdom
9	CONSEJO SUPERIOR DE INVESTIGACIONES CIENTIFICAS	Madrid	Spain

Scientific support to policies

NOAH'S ARK'

501837

Project URL http://noahsark.isac.cnr.it/

Title:	GLOBAL CLIMATE CHANGE IMPACT ON BUILT HERITAGE AND CULTURAL LANDSCAPES		
Area:	Underpinning the economical potential and cohesion of a larger and more integrated European Union - The protection of cultural heritage and associated conservation strategies		
Instrument:	Specific Targeted Research Project (STREP)		
Project total cost:	1.762.380 €	Contract start date:	1/05/2004
EU contribution:	1.175.520 €	Duration:	36 months
Organisation:	CONSIGLIO NAZIONALE DELLE RICERCHE	Roma - Italy	
Co-ordinator:	Dr Cristina SABBIONI		

Abstract

Climate change over the next 100 years will likely have a range of direct and indirect effects on the natural and material environment, including the historic built environment. Important changes will include alterations in temperature, precipitation, extreme climatic events, soil conditions, groundwater and sea level. Some processes of building decay will be accelerated or worsened by climate change, while others will be delayed. The impacts on individual processes can be described, but it is difficult to assess the overall risk posed by climate change using currently available data . Linking global changes to the response of material surfaces of archaeological and historic structures remains a challenge. The objectives of the NOAH'S ARK Project are: - To determine the meteorological parameters and changes most critical to the built cultural heritage. - To research, predict and describe the effects of climate change on Europe's built cultural heritage over the next 100 years. - To develop mitigation and adaptation strategies for historic buildings, sites, monuments and materials that are likely to be worst affected by climate change effects and associated disasters. - To disseminate information on climate change effects and the optimum adaptation strategies for adoption by Europe's cultural heritage managers through a conference and guidelines. - To provide electronic information sources and tools, including web-based Climate Risk Maps and a Vulnerability Atlas for heritage managers to assess the threats of climate change in order to visualize the built heritage and cultural landscape under future climate scenarios and model the effects of different adaptation strategies. - To advise policy-makers and legislators through the project's Policy Advisory Panel. The results will allow the prediction of the impact of climate and pollution on cultural heritage and investigation of future climate scenarios on a European scale.'

Partners

Nb	Organisation	Town	Country
1	CONSIGLIO NAZIONALE DELLE RICERCHE	Roma	Italy
2	UNIVERSITY COLLEGE LONDON	London	United Kingdom
3	UNIVERSITY OF EAST ANGLIA	Norwich	United Kingdom
4	KORROSIONSINSTITUTET SCI AB	Stockholm	Sweden
5	INSTYTUT KATALIZY I FIZYKOCHEMII POWIERZCHNI, POLSKA AKADEMIA NAUK	Krakow	Poland
6	USTAV TEORETICKE A APLIKOVANE MECHANIKY, AKADEMIE VED CESKE REPUBLIKY	Praha 9	Czech Republic
7	CONSEJO SUPERIOR DE INVESTIGACIONES CIENTIFICAS	Madrid	Spain
8	NORSK INSTITUTT FOR LUFTFORSKNING	Kjeller	Norway
9	ECCLESIASTICAL INSURANCE GROUP	Gloucester	United Kingdom
10	BIOLOGIA Y MEDIO AMBIENTE, S.L	Barcelona	Spain

Title:	Sustaining Europe's Cultural Heritage: From Research to Policy'		
Area:	Underpinning the economical potential and cohesion of a larger and more integrated European Union - The protection of cultural heritage and associated conservation strategies		
Instrument:	Specific Support Action (SSA)		
Project total cost:	224.990 €	Contract start date:	1/05/2004
EU contribution:	149.990 €	Duration:	12 months
Organisation:	University College London	London - United Kingdom	
Co-ordinator:	Prof. May Cassar		

Abstract

One of the fundamental principles of sustainability is not to consume the earths non-renewable resources. Cultural heritage is a prime example of a non-renewable resource and by virtue of its longevity is an exemplar of sustainability in action. Sustainability and its implementation in terms of environment, economy and society is high on the European political agenda. This project will demonstrate how sustainability can contribute to the preservation of, and access to, cultural heritage thus enhancing the long-term future of both the moveable and immoveable heritage. Equally, this project will also demonstrate how European cultural heritage is an integral part of a sustainable society. For example, by maintaining the use of historic buildings, unnecessary new construction and its associated material and energy costs to the environment are avoided. However, the evolution of European policy for the protection of cultural heritage has been rather slow, has rarely been underpinned by sound scientific research and has often missed the links that could be made between cultural heritage and sustainability. This project seeks to address these issues through a European conference Sustaining Europes Cultural Heritage: From Research to Policy to be held in London in September 2004. Over 3 days, the conference will address the theme of sustainability of cultural heritage through presentations of recent Cultural Heritage research, workshop sessions, discussions, poster presentations and study visits. The conference will be aimed at stakeholders involved in the issues of sustaining heritage, including conservation practitioners, scientists, SMEs, managers and including policy makers who long-term decisions directly and indirectly affect the preservation of cultural heritage.

Partners

Nb	Organisation	Town	Country
1	University College London	London	United Kingdom

Title:	Development of a new antigraffiti system, based on traditional concepts, preventing damage of architectural heritage materials		
Area:	Underpinning the economical potential and cohesion of a larger and more integrated European Union - The protection of cultural heritage and associated conservation strategies		
Instrument:	Specific Targeted Research Project (STREP)		
Project total cost:	1.664.240 €	Contract start date:	
EU contribution:	1.079.862 €	Duration:	36 months
Organisation:	FUNDACION LABEIN	Derio - Spain	
Co-ordinator:	Dr. ISABEL RODRIGUEZ-MARIBONA		

Abstract

Graffiti is a major, increasing danger to architectural heritage materials, generating also a negative social connotation. Apart from aesthetics aspects, interactions of graffiti with substrate, as well as cleaning procedures, threaten historical substance. Monuments made of stone, bricks and mortars are menaced by this problem because very often, porous natural materials were employed. Two major kind of coatings are currently being used for protecting surfaces against graffiti: permanent and sacrificial. First kind is suited for materials with low porosity, as metals and concrete, but does not fit the requirements for porous ancient materials. Second one is sometimes used in monuments, but it is not an appropriated solution, since removal procedures can damage substrates somewhat. Hence, effective solutions for anti-graffiti systems is an urgent social and technical necessity. The main objective of this project is to develop novel conservation coatings suited for protecting materials of historical monuments, based on a similar structure of ancient protein coatings, avoiding the disadvantages of currently used antigraffiti coatings . This develop is based in a totally new formulation made by complexation of polyampholytes with polymeric amines modified by fluorocarbon residues. These will be a new generation of antigraffiti coatings, specifically suited for the protection of monuments, which after further development, could be commercialised and applied by SME's involved in this market, thus increasing the competitiveness of these companies. Main characteristics of these products are: Low surface energy Permanent under out-door conditions Reversible to specially designed mild cleaning systems Permeable to water-vapour Impermeable to liquid water Transparent The objective will be achieved by means of research activities, such as: Definition of requirements and test procedures, design of new anti-graffiti system, characterisation of substrates, comparative

Partners

Nb	Organisation	Town	Country
1	FUNDACION LABEIN	Derio	Spain
2	Fraunhofer Gesellschaft zur Foerderung der angewandten Forschung e.V.	Muenchen	Germany
3	Zaklad Karbochemii Polska Akademia Nauk	Gliwice	Poland
4	Bundesanstalt für Materialforschung und -prügung	Berlin	Germany
5	CENTRE SCIENTIFIQUE ET TECHNIQUE DE LA CONSTRUCTION ASBL	Brussels	Belgium
6	Centro Interdipartimentale di Scienza e Tecnica per la Conservazione del Patrimonio Storico-Architettonico, Università di Roma La Sapienza	Roma	Italy
7	Zavod za gradbenistvo Slovenije	Ljubljana	Slovenia
8	NORTECH GmbH Anti-Graffiti-Systeme	Springe	Germany
9	RESTAURACIONES SIGLO XXI S.L.	Bilbao	Spain
10	Ayuntamiento de Bilbao	Bilbao	Spain

EUROPEAN COMMISSION

Community research

Abstracts of related projects Global Change and Ecosystems (call 3 *)

Environmental Technologies and Pollution Prevention

30/08/2005

GLOBAL CHANGE AND ECOSYSTEMS

SIXTH FRAMEWORK PROGRAMME

* The projects described here have been retained for negotiation. Final data might be different

Title **Twinning European and Latin-American River Basins for Research Enabling Sustainable Water Resources Management**

Activity code:	SUSTDEV-2004-3.II.3.1.1	Instrument: STREP	Duration:	36 months
Co-ordinator	Dr. Sam Ekstrand			
Organization	IVL, Swedish Environmental Research Institute SE-SE-100 31 Stockholm		Total Costs: Proposed EC grant:	3.475.237 € 2.000.000 €

Abstract:

The Latin American and Caribbean region is highly heterogeneous in terms of climate zones, hydro-ecology, socio-political systems etc. Numerous problems in relation to water quality and water availability arise. Flooding occurs frequently and erosion and pollution pressures have also become major problems. Management strategies, legal framework and stakeholder involvement needs to be improved. Activities and research tasks will be conducted within several fields of IWRM; hydrology, modelling of pollution flow, impact assessment, socio-economic impacts, climate change effects, scenario analysis and action efficiency. The river basins selected are: Baker (Chile-Argentina), Catamayo-Chira (Peru-Ecuador), Cauca (Colombia), Lago de Nicaragua (Nicaragua), and Quarai/Cuareim (Uruguay-Brazil). The European river basins are Thames (UK) and Norrström (Sweden). The project addresses the goals of the EU WI "Water for Life", and builds on the methods and guidelines developed for the EU WFD. Interfaces with international organisations have been established. The proposal is designed to enable and facilitate twinning in all fields of activity in order to fill gaps in knowledge. The strong component of public participation and stakeholder involvement will ensure that each component has local ownership. The river basins selected represent a wide variety of conditions, addressing also transboundary water problems. Thus, the applicability of the WFD approach will vary for the third country basins, and methodology applied will be a modification of the WFD process. The final step will be development of tools for the implementation and identification of priority actions analysed in terms of physical/chemical efficiency as well as socio-economic effects. Priority actions are an essential part of an RBMP, and will be a crucial input and an encouragement to the Latin American end-users of TWINLATIN to develop full RBMP's following the finalisation of the project.

Partners:

Nb	Partner Legal Name	Country
1	IVL, Swedish Environmental Research Institute	SE
2	Centre of Ecology and Hydrology, Wallingford	UK
3	Katholieke Universiteit Leuven, Belgium	BE
4	Centro de Ciencias Ambientales Europa-Latinoamérica, University of Concepción. EULA Chile	CL
5	Instituto de Pesquisas Hidraulicas, Universidade Federal do Rio Grande do Sul, Brazil	BR
6	Dirección Nacional de Hidrografía del Ministerio de Transporte y Obras Públicas (National Direction of Hydrography, Ministry of Transport and Public Works)	UY
7	Centro de Investigaciones y Estudios en Medio Ambiente de la Universidad Nacional de Ingeniería, Nicaragua	NI
8	Comisión Binacional Catamayo-Chira, Peru-Ecuador	EC
9	Corporación Autónoma Regional del Valle del Cauca, Colombia	CO

Call FP6-2004-Global-3 SWITCH 018530-2

Title **Sustainable Water management Improves Tomorrow's Cities' Health**

Activity code: SUSTDEV-2004-3.II.3.2.1 Instrument: IP Duration: 60 months

Co-ordinator Mr. Huub Gijzen

Organization UNESCO-IHE Institute for Water Education
NL-2601DA Delft

Total Costs: 25.191.396 €

Proposed EC grant: 14.750.000 €

Abstract:

Context With increasing global change pressures, and due to existing limitations, and un-sustainability factors and risks of conventional urban water management (UWM), cities experience difficulties in efficiently managing the ever scarcer water resources, their uses/services, and their after-use disposal, without creating environmental, social and/or economic damage. In order to meet these challenges, SWITCH calls for a paradigm shift in UWM. There is a need to convert ad-hoc actions (problem/incident driven) into a coherent and consolidated approach (sustainability driven). This calls for an IP Approach. Research concept SWITCH therefore proposes an action research project which has as a main objective: "The development, application and demonstration of a range of tested scientific, technological and socio-economic solutions and approaches that contribute to the achievement of sustainable and effective UWM schemes in 'The City of the future'". The project will be implemented by different combinations of consortium partners, along the lines of seven complementary and interactive themes. The research approach is innovative for the combination of: • action research: address problems through innovation based upon involvement of users. • learning alliances: to link up stakeholders to interact productively and to create win-win solutions along the water chain; • multiple-way learning: European cities learn from each other and from developing countries, and vice versa. • multiple-level or integrated approach: to consider the urban water system and its components (city level) in relation to its impacts on, and dependency of, the natural environment in the river basin (river basin level), and in relation to Global Change pressures (global level). Instruments and scope An IP with 30 partners, their resources, and a total budget of € 25191396, including budget for demonstration activities in 9 Cities in Europe and developing countries.

Partners:

Nb	Partner Legal Name	Country
1	UNESCO-IHE Institute for Water Education	NL
2	Stichting International Water and Sanitation Centre	NL
3	ETC Foundation	NL
4	Wageningen University	NL
5	Middlesex University Higher Education Corporation	UK
6	The University of Birmingham	UK
7	Ove Arup and partners Limited	UK
8	UGMT Limited	UK
9	Technische Universität Hamburg - Harburg	DE
10	Mekorot Israel National Water Co.	IL
11	The Hebrew University of Jerusalem	IL
12	Ministry of Construction of P.R. China	CN
13	Institute of Geographical Sciences and Natural Resources Research, Chinese Academy of Sciences	CN
14	Ayuntamiento de Zaragoza	ES
15	University of Lodz	PL
16	International Water Management Institute	SI
17	Deapartment of Civil Engineering, Kwame Nkrumah University of Science and Technology	GH
18	Prefeitura Municipal de Belo Horizonte	BR

19	Univesidade Federal de Minas Gerais	BR
20	ICLEI - European Secretariat, GmbH	DE
21	Swiss Federal Institute of Technology Lausanne	CH
22	United Nations Human Settlements Programme	KE
23	Centro Inter-Regional de Abastecimiento y Remocion de Agua	CO
24	IPES - Promocion del Desarrollo Sostenible	PE
25	Ingenieurgesellschaft Prof. Dr. Sieker mbH	DE
26	Technische Universität Berlin	DE
27	Loughborough University	UK
28	House of Water and Environment	PS
29	Institute of Graduate Studies & Research	EG
30	UNIVERSIDAD NACIONAL	CO

Call FP6-2004-Global-3 AMEDEUS 018328

Title **Accelerate Membrane Development for Urban Sewage Purification**

Activity code: SUSTDEV-2004-3.II.3.2.2 Instrument: STREP Duration: 36 months

Co-ordinator Dr. Francis Luck

Organization KompetenzZentrum Wasser Berlin gemeinnützige GmbH
DE-10709 Berlin

Total Costs: 5.287.557 €
Proposed EC grant: 3.034.808 €

Abstract:

Over the past decade, membrane bioreactors have been increasingly implemented to purify municipal wastewater. However, even with submerged membranes which offer the lowest costs, the MBR technology remains in most cases more expensive than conventional processes. In addition, the European municipal MBR market is to date a duopoly of two non-European producers, despite many initiatives to develop local MBR filtration systems. The proposed AMEDEUS research project aims at tackling both issues, accelerating the development of competitive European MBR filtration technologies, as well as increasing acceptance of the MBR process through decreased capital and operation costs. The project will target the two markets for MBR technology in Europe: the construction of small plants (semi-central, 50 to 2,000pe, standardized & autonomous), and the medium-size plants (central, up to 100.000pe) for plant upgrade. Technological development of new MBR systems will be fostered by a consortium composed of 11 partners, of which five SMEs proposing novel concepts of low-cost and high-performance filtration systems. Two end-users, three non-profit institutions and a university, all of them well versed in R&D in the MBR field, will investigate solutions to reduce operation costs such as fouling control, membrane cleaning optimisation, aeration decrease, or optimise capital costs through improved implementation of membrane bioreactor process. Furthermore, an analysis of the potential for standardisation will be performed, and a technology transfer towards Southern and Eastern Europe will be organised in order to facilitate the penetration of these new markets. AMEDEUS will achieve concrete and realistic technological breakthroughs for the MBR technology, and improve the current process engineering and operation practices. It will improve the competitiveness of the MBR European market and render common this high-tech process for municipal wastewater treatment.

Partners:

Nb	Partner Legal Name	Country
1	KompetenzZentrum Wasser Berlin gemeinnützige GmbH	DE
2	A3 Abfall-Abwasser-Anlagentechnik GmbH	DE
3	Anjou Recherche	FR
4	Aquafin NV	BE
5	ENVI-PUR, s.r.o.	CZ
6	Vlaamse instelling voor technologisch onderzoek	BE
7	inge AG	DE
8	Millenniumpore Limited	UK
9	POLYMEM SA	FR
10	Technische Universitaet Berlin	DE
11	Tecnotessile Società Nazionale di Ricerca Tecnologica r.l.	IT

Title **Membrane bioreactor technology (MBR) with an EU perspective for advanced municipal wastewater treatment strategies for the 21st century**

Activity code:	SUSTDEV-2004-3.II.3.2.2	Instrument: STREP	Duration:	36 months
Co-ordinator	Prof. TorOve Leiknes			
Organization	Norwegian University of Science and Technology NO-N-7491 Trondheim		Total Costs: Proposed EC grant:	4.621.145 € 3.000.000 €

Abstract:

The World is running out of clean, safe, fresh water. By 2025 one third of humanity (ca. 3 billion people) will face severe water scarcity. This has been described as the "single greatest threat to health, the environment and global food security". Water is essential and preservation of its safety in quantity and in quality is critical to the sustainable development of any society. The goal of this project is to make a contribution to meet this challenge. The protection of water in the European Union has been encouraged through the Water Framework Directive (WFD). The intention of WFD is to protect water resources (quality and quantity) through an integrated water resource management policy. Wastewater treatment is an important aspect of water management. Efficient, cost effective treatment processes are needed for transforming wastewater into water free from contamination which can be returned to the hydrological cycle without detrimental effects. The development and application of MBR for full scale municipal wastewater treatment is the most important recent technical advance in terms of biological wastewater treatment. It represents a decisive step further concerning effluent quality by delivering a hygienically pure effluent and by exhibiting a very high operational reliability. The overall objective of EUROMBRA is to develop a cost-effective, sustainable solution for new, efficient and advanced municipal wastewater treatment based on MBR technology. This will be achieved through a multi-faceted, concerted and cohesive research programme explicitly linking key limiting phenomena (fouling, clogging) observed and quantified on the micro-, meso-. and macro-scale. Key to the success of the programme is the harnessing specialist knowledge, conducting of dedicated yet interlinked experiments and incorporating key aspects of both system design and operational facets, the latter encompassing hydrodynamics and mass transfer, foulant speciation and dynamic impacts

Partners:

Nb	Partner Legal Name	Country
1	Norwegian University of Science and Technology	NO
2	Cranfield University	UK
3	Rheinisch-Westfaelische Technische Hochschule Aachen	DE
4	INSTITUTO DE BIOLOGIA EXPERIMENTAL E TECNOLÓGICA	PT
5	Institut National des Sciences Appliquées de Toulouse	FR
6	Montpellier II	FR
7	Delft University of Technology	NL
8	Swiss Federal Institute for Environmental Science and Technology	CH
9	Università degli Studi di Trento	IT
10	University of Technology, Sydney	AU
11	University of KwaZulu-Natal	ZA
12	POLYMEM S.A.	FR
13	PURON AG	DE
14	FlowConcept GmbH	DE
15	Milleniumpore Ltd.	UK
16	Waterschap Hollandse Delta	NL
17	Erftverband	DE

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

Activity code: SUSTDEV-2004-3.II.3.2.3 Instrument: IP Duration: 60 months

Co-ordinator Dr. Adriana Hulsmann

Organization Kiwa N.V.
NL-2280 AB Rijswijk

Total Costs: 19.076.340 €

Proposed EC grant: 13.245.000 €

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.

Partners:

Nb	Partner Legal Name	Country
1	Kiwa N.V.	NL
2	SINTEF-The Foundation for Technical and Industrial Research	NO
3	Riga Technical University	LV
4	Swiss Federal Institute for Environmental Science and Technology	CH
5	Norwegian University of Science and Technology	NO
6	DVGW-Technologiezentrum Wasser	DE
7	Laboratório Nacional de Engenharia Civil	PT
8	UNESCO-IHE Institute for Water Education	NL
9	WRc plc	UK
10	University of Surrey	UK
11	European Committee of Environmental Technology Suppliers Association	BE
12	BioDetection Systems BV	NL
13	Rheinisch-Westfaelische Technische Hochschule Aachen	DE
14	Chalmers University of Technology	SE
15	ALPHA MOS SA	FR
16	scan Messtechnik Ges.m.b.H.	AT
17	vermicon AG	DE
18	Groupement d'Intérêt Economique Anjou Recherche	FR

19	Mekorot Water Co. Israel	IL
20	Kompetenzzentrum Wasser Berlin gGmbH	DE
21	Water Research Commission	ZA
22	bbe Moldaenke GmbH	DE
23	Forschungsverbund Berlin e.V. / IGB	DE
24	Technische Universiteit Delft	NL
25	Aqualyng AS	NO
26	Chris Swartz Water Utilization Engineers	ZA
27	Freie Universität Berlin	DE
28	Indian Institute of Technology, Delhi	IN
29	National Institute of Public Health	CZ
30	Opalium	FR

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

Activity code: SUSTDEV-2004-3.II.3.2.4 Instrument: STREP Duration: 36 months

Co-ordinator Dr. Gerd Kley

Organization Bundesanstalt für Materialforschung und-prüfung Federal Institute for Materials Research and Testing
DE-12489 Berlin

Total Costs: 1.566.000 €

Proposed EC grant: 1.159.800 €

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:

Nb	Partner Legal Name	Country
1	Bundesanstalt für Materialforschung und-prüfung Federal Institute for Materials Research and Testing	DE
2	Vienna University of Technology	AT
3	Federal Agricultural Research Center	DE
4	ASH DEC Umwelt AG	AT
5	Bamag GmbH & Co. KG	DE
6	N.V. Slibverwerking Noord-Brabant	NL
7	Kemira GrowHow Oyj	FI

Call FP6-2004-Global-3 REMOVALS 018525

Title **Reduction, modification and valorisation of sludge**

Activity code: SUSTDEV-2004-3.II.3.2.4 Instrument: STREP Duration: 36 months

Co-ordinator PROF. AZAEL FABREGAT LLANGOSTERA

Organization UNIVERSITAT ROVIRA I VIRGILI
ES-43003 TARRAGONA

Total Costs: 3.659.410 €

Proposed EC grant: 3.120.000 €

Abstract:

The adoption of the Urban Waste Water Treatment Directive 91/271/EEC imposes the sewage sludge to be subsequently treated so it is expected by 2005 to increase twofold in comparison whit 1992. However, classical incineration to treat this vast amount of sludge must be no longer accepted from an environmental point of view. In addition, the Sewage Sludge Directive 86/278/EEC regulates the uses and properties of stabilised sludge for being either recycled or disposed. Both directives drive specific actions in two complementary ways. Firstly, a deep knowledge of current sludge treatment, such as mesophilic, thermophilic or autothermophilic processes, must be promoted to solve that problem in the UE ambit, taking in account the particular considerations of each treatment facility. In second place, the development of new processes must be supported to open new alternatives that could valorise that waste.The proposal aims at developing strategies for the disposal and reuse of waste sludge. The scope envisages to develop several processes for reducing both amount and toxicity of sludge, with simultaneous transformation into green energy vectors such as methane or hydrogen. In outline, mesophilic and mainly thermophilic and autothermophilic conditions will be deeply explored as classical alternatives for sludge stabilisation, assuring sanitary conditions of the treated sludge. Also, valuable materials will be obtained from sludge, such as activated carbons, which will be used in conventional adsorption processes and in innovative advanced oxidation processes.The main outcomes expected at the end of the projects are guidelines for technology selection in agreement with the geographic, economic and technical characteristics of the sewage plants, demonstration of the feasibility of new applications for the sewage sludge, manufacturing of activated carbon from sludge sewage as innovative recycling of sludge waste, and a deep understanding of the methods involved.

Partners:

Nb	Partner Legal Name	Country
1	UNIVERSITAT ROVIRA I VIRGILI	ES
2	GEPEA, UMR-CNRS 6144	FR
3	UNIVERSITAT AUTÒNOMA DE BARCELONA	ES
4	UNIVERSITY OF GLAMORGAN	UK
5	INSTITUT NATIONAL POLYTECHNIQUE DE TOULOUSE	FR
6	GESTIÓ AMBIENTAL I ABASTAMENT, S.A.	ES
7	TRATAMIENTOS Y RECUPERACIONES INDUSTRIALES, SA	ES
8	INSTITUTE OF CHEMICAL TECHNOLOGY PRAGUE	CZ
9	TECHNICAL UNIVERSITY OF LODZ	PL
10	TECHNISCHE UNIVERSITÄT BERLIN	DE
11	FACULTY OF SCIENCES AND TECHNOLOGY - UNIVERSITY OF COIMBRA	PT
12	COSVALADO-INDÚSTRIA, COMÉRCIO E SERVIÇOS VITIVINICOLAS E ALIMENTARES, S.A.	PT
13	CENTRE NATIONAL DE LA RECHERCHE SCIENTIFIQUE DÉLÉGATION RHÔNE-ALPES (SITE VALLÉE DU RHÔNE)	FR
14	IMPERIAL COLLEGE OF SCIENCE, TECHNOLOGY & MEDICINE	UK
15	SALSNES FILTER AS	NO
16	CHEMVIRON CARBON LIMITED	UK

Call FP6-2004-Global-3 RECLAIM WATER 018309

Title **Water reclamation technologies for safe artificial groundwater recharge**

Activity code: SUSTDEV-2004-3.II.3.3.1 Instrument: STREP Duration: 36 months

Co-ordinator Prof. Thomas Melin

Organization Rheinisch-Westfaelische Technische Hochschule Aachen
DE-52056 Aachen

Total Costs: 4.809.584 €
Proposed EC grant: 3.000.000 €

Abstract:

Solutions to global water stress problems are urgently needed yet must be sustainable, economical and safe. The utilisation of alternative water sources like reclaimed municipal wastewater is one of the most obvious and promising options in integrated water management. Among the various beneficial uses of reclaimed wastewater Aquifer Recharge (AR) receives growing attention because it features advantages such as additional natural treatment, storage capacity to buffer seasonal variations of supply and demand as well as mixing with natural water bodies which promotes the acceptance of further uses, particularly indirect potable use. Major concerns about the safety of this exploitation route of an alternative water source are connected to microbial and chemical contaminants occurring in wastewater, among which are emerging trace organics like endocrine disrupters and pharmaceuticals. The strategic objective of this proposal is to develop hazard mitigation technologies for water reclamation providing safe and cost effective routes for artificial groundwater recharge. The proposed work will assess different treatment applica-tions in terms of behaviour of key microbial and chemical contaminants. The knowledge generated in the project and the technologies developed will also be suited to the needs of developing countries, which have a growing need of supplemen-tation of freshwater resources. The participation of partners from China and Australia demonstrate the anticipation of the global dimension of the water reclamation and aquifer recharge issue. The proposed project will strategically support the competitiveness of European technology suppliers and water services in the context of water reclamation and groundwater recharge.

Partners:

Nb	Partner Legal Name	Country
1	Rheinisch-Westfaelische Technische Hochschule Aachen	DE
2	Consiglio Nazionale delle Ricerche	IT
3	Technische Universitaet Berlin	DE
4	Swiss Federal Institute for Environmental Science and Technology	CH
5	Cranfield University	UK
6	Universitat de Barcelona	ES
7	DHI Water & Environment	DK
8	Institute for Ecological Engineering - Institut za ekološki inženiring	SI
9	Microscreen BV	NL
10	Mekorot Water Company Israel	IL
11	Unesco-IHE	NL
12	Bundesanstalt fuer Gewässerguete (Federal Institute of Hydrology)	DE
13	Tsinghua University	CN
14	Bureau de Recherches Géologiques et Minières	FR
15	Aquafin N.V.	BE
16	United Water Pty Ltd	AU

Title **Groundwater Artificial recharge Based on Alternative sources of wateR: aDvanced INtegrated technologies and managEment**

Activity code: SUSTDEV-2004-3.II.3.3.1 Instrument: STREP Duration: 36 months

Co-ordinator Prof. Martin Sauter

Organization Georg-August-Universität Göttingen
DE-37073 Göttingen

Total Costs: 3.457.872 €

Proposed EC grant: 2.500.000 €

Abstract:

Aquifers are the main source of water in most semi-arid areas of the Mediterranean basin. As a result of over-exploitation hydrologic deficits of varying acuity prevail in these areas. Seawater intrusion and pollution have been identified as the primary factors for quality degradation. Further deterioration can be expected based on trends in the precipitation regime attributed to climate change. The objective of this project is to identify alternative sources of water and to investigate the feasibility, both environmental and economic of their utilization. Alternative water sources to be artificially recharged comprise: surface water runoff, treated effluent, and imported water. Furthermore, brackish water bodies, present in many aquifers could be utilised after desalination. The project structured into eight work-packages comprehensively addresses all issues related to the problem: expected precipitation rates, recharge and water budgets, identification of potential alternativewater sources and technologies for their utilization, development of tools for the management of groundwater resources under artificial recharge conditions, aquifer vulnerability assessment, characterization of the unsaturated zone, and mixing effects. Four test sites have been selected for practical application of the approach. Substantial field testing, integration of technologies and findings to ensure optimal implementation of aquifer recharge alternatives, quantification of socio-economic impacts and development of dissemination platform are planned. Finally a carefully designed project management shall drive and accompany the project execution in order to ascertain consistency and efficiency.

Partners:

Nb	Partner Legal Name	Country
1	Georg-August-Universität Göttingen	DE
2	Universitat Politécnica de Catalunya	ES
3	Laboratório Nacional de Engenharia Civil	PT
4	Technion - Israel Institute of Technology	IL
5	University of Liège	BE
6	ARISTOTLE UNIVERSITY OF THESSALONIKI	GR
7	GEOSERVICE	GR
8	THESSALONIKI'S WATER SUPPLY AND SEWERAGE COMPANY S.A.	GR
9	University of Nottingham	UK
10	PALESTINIAN HYDROLOGY GROUP for water and environment resources development	PS
11	Palestinian Water Authority	PS
12	Environmental & Water Resources Engineering	IL
13	Hydrological Service of Israel	IL

Title **Fast Advanced Cellular and Ecosystems Information Technologies**

Activity code: SUSTDEV-2004-3.III.3.1 Instrument: STREP Duration: 42 months

Co-ordinator Prof. Jan Roelof van der Meer

Organization University of Lausanne
CH-1015 Lausanne

Total Costs: 5.784.519 €
Proposed EC grant: 3.700.000 €

Abstract:

Marine and freshwater ecosystems continue to be threathened by large scale pollution disasters. Such disasters are often caused by oil-related activities, but pollution nature, magnitude and site of occurrence all can be very different, with unpredictable outcome on the responses of individual organisms, the biodiversity and the functioning of the aquatic ecosystems. The FACEiT project proposes to develop rapid, cost-effective and reliable innovative measurement technologies to analyze and predict in situ population effects and ecosystems community diversity and functioning. For this purpose, FACEiT will develop in-situ pollutant monitoring technologies with semi-continuously operated microbial reporter systems, will design and test rapid methods based on unicellular planktonic viability and cell integrity, on diversity and functional responses of the whole microbial community and on multibiomarkers in organisms at higher trophic levels. FACEiT will also develop a set of state-of-the art ex-situ sample incubation analysis methods, including a multianalyte microbial reporter platform and whole genomic tests based on pollutant-induced transcriptomic and proteomic responses in microorganisms, mammalian cell lines and fish eggs. Innovative modeling approaches will focus on understanding and predicting pollutant fate in organisms, communities and the natural environment, which will be based on metabolic pathway prediction networks, physicochemical distribution processes and biota activities. All developed measurement technologies will be extensively validated on realistic samples from contaminated sites, and coherently tested in a pollution disaster scenario. Dissemination plans include various prototype developments up to market level implementation and two advanced courses for transferring FACEiT technologies and concepts to the end-user community.

Partners:

Nb	Partner Legal Name	Country
1	University of Lausanne	CH
2	University of Essex	UK
3	Stichting Koninklijk Nederlands Instituut voor Onderzoek der Zee	NL
4	Université de Pau et des Pays de l'Adour	FR
5	Swiss Federal Institute for Environmental Science and Technology	CH
6	UFZ - Umweltforschungszentrum Leipzig - Halle GmbH	DE
7	Bioclear	NL
8	Consejo Superior de Investigaviones Cientificas	ES
9	UNIVERSITY OF PLYMOUTH HIGHER EDUCATION CORPORATION	UK
10	Cybersense Biosystems Ltd	UK
11	Institute of Biochemistry	LT
12	BioDetection Systems B.V.	NL

Title **Dynamic Sensing of Pollution Disasters and Predictive Modelling of Their Ecological Impact**

Activity code:	SUSTDEV-2004-3.III.3.1	Instrument: STREP	Duration:	36 months
Co-ordinator	Prof. Herman P. van Leeuwen			
Organization	Wageningen Universiteit NL-HB 6701 Wageningen		Total Costs:	4.241.160 €
			Proposed EC grant:	3.500.000 €

Abstract:

ECODIS will develop technologies for monitoring the physicochemical reactivity and biological impact of pollutant species on the short and long term chemical and biological status of aquatic ecosystems following a pollution disaster. Exposure conditions, as defined by the temporal profiles of the concentration and speciation of pollutants, will be quantitatively linked to biological effects via an innovative dynamic approach based on the flux of pollutant species as a key parameter in determining and defining overall ecosystem quality. The dynamic features of pollutant species distribution over biotic and abiotic components will be combined to provide a generic dynamic approach for any macroscopic aquatic ecosystem impacted by a pollution disaster event. This will involve coupling physicochemical understanding of pollutant speciation and mobility with macroscale transport processes such as diffusion and flows in the water body. One of the major goals of the project is to arrive at a model that includes predicted pollutant species distributions, and ensuing biological risk, in all compartments of the aquatic ecosystem as a function of time and space. Especially in disaster situations, the pollutant sink/source functioning of aquatic ecosystems under extreme load will be a key factor in the rate of spread of the disaster impact. Coupling this with appropriate transport modelling will allow us to predict the immediate and long term impact of a given pollution disaster, and to develop sophisticated new strategies for dynamic risk assessment and disaster management policies.

Partners:

Nb	Partner Legal Name	Country
1	Wageningen Universiteit	NL
2	University of Southern Denmark	DK
3	Universite de Geneve	CH
4	Joint Research Centre - Institute for Health and Consumer Protection	IT
5	Utrecht University	NL
6	Masarykova univerzita v Brne	CZ
7	Max Planck Society, represented by the Max Planck Institute for Marine Microbiology	DE

Title **An innovative approach of Integrated Wildland Fire Management regulating the wildfire problem by the wise use of fire: solving the FIRE PARADOX**

Activity code:	SUSTDEV-2004-3.IV	Instrument: IP	Duration:	48 months
Co-ordinator	Prof. Francisco Rego			
Organization	Instituto Superior de Agronomia PT-1349-017 Lisboa		Total Costs: Proposed EC grant:	14.868.632 € 12.000.000 €

Abstract:

Wildfires are a major problem for many European societies threatening human lives and property with disastrous impacts particularly at the wildland-urban interface. On the other hand humans always used fire as a tool to regulate nature and traditional use of fire is known in many regions of Europe. The understanding of this paradox, is thus essential for finding solutions for integrated wildland fire management. This concept requires considering the various aspects of fire, from its use as a planned management practice (prescribed fire) to the initiation and propagation of unplanned fires (wildfires) and to the use of fire in fighting wildfires (suppression fire). Prescribed or suppression fires will therefore set the limits for wildfires by vontrolling their spatial extent, intensity and impacts. This is the main approach adopted aiming at the creation of the scientific and technological bases for new practices and policies under integrated wildland fire management and in the development of strategies for its implementation in Europe. Three major domains of related activities were considered: research, development and dissemination. In research, the project will focus on understanding the machanisms and modelling the processes associated with fire, from physics to biology and social sciences. Experimental and sampling methods will be used. The scientific and technical knowledge gathered will allow the development of a technological platform that will integrate the fire model, the temporal and spatial variability of fuels and weather, and the potential ecological and social-economical impacts. Documentation and demonstration platforms will also be extensively used for dissemination, focusing in the development of stategies for public awarness, academic and professional training using new communication technologies and networks, and for the implementation of new practices, policies and regulations under the concept of integrated wildland fire management.

Partners:

Nb	Partner Legal Name	Country
1	Instituto Superior de Agronomia	PT
2	Institut National de la Recherche Agronomique	FR
3	European Forest Institute	FI
4	Mediterranean Agronomic Institute of Chania	GR
5	Max Plank Institute for Chemistry, Biogeochemistry Department, Fire Ecology Research Group/Global Fire Monitoring Center, c/o Freiburg University	DE
6	Universidad Carlos III de Madrid	ES
7	Instituto Nacional de Investigación y Tecnología Agraria y Alimentaria	ES
8	Generalitat de Catalunya, Departament d´Interior, Departament General d´Emergències i Seguretat Civil, Grup de Recolzament d´Actuacions Forestals	ES
9	Universidad Complutense de Madrid, Grupo de Investigación 930329 Política y socioeconomía Forestal	ES
10	Centro de Investigaciones Forestales y Ambientales de Lourizán. Centro de Desenvolvemento Sostible. Consellería de Medio Ambiente. Xunta de Galicia	ES
11	Universidad de LLeida	ES
12	Centre Tecnològic Forestal de Catalunya	ES
13	Swiss Federal Institute for Forest, Snow and Lanscape Research	CH
14	Université de la Méditerranée	FR
15	Cemagref, Centre National du Machinisme Agricole, du Génie Rural des Eaux et des Forêts	FR
16	Espaces Méditerranéens	FR

17	Agence MTDA	FR
18	Instituto Superior Técnico	PT
19	Universidade de Trás-os-Montes	PT
20	Dipartimento di Arboricoltura, Botanica e Patologia Vegetale, Università degli Studi di Napoli Federico II	IT
21	Corpo Forestale e di Vigilanza Ambientale della Regione Autonoma della Sardegna	IT
22	University of Thessaloniki	GR
23	University of Bristol	UK
24	Slovenian Forestry Institute	SI
25	Forest Research Institute	PL
26	The University of Edinburgh	UK
27	VTT Technical Research Centre of Finland	FI
28	National Institute of Research in Rural Engineering, Water and Forests	TN
29	Ecole Nationale Forestiere d´Ingenieurs	MA
30	OMIKRON - Environmental engennering and technical works design, study, management - Ltd	GR

Call FP6-2004-Global-3 ETP-SC 018316

Title **A European Technology Platform for Sustainable Chemistry**

Activity code: SUSTDEV-2004-3.IX Instrument: SSA Duration: 24 months

Co-ordinator Mr Colin Humphris

Organization European Chemical Industry Council
BE-B-1160 Brussels

Total Costs: 1.109.506 €
Proposed EC grant: 785.000 €

Abstract:

The biggest technological challenge faced by the European Union is to develop innovative wealth-creating technologies that are above all sustainable. Innovative chemistry will make a major contribution to our innovation demands and will help resolve environmental issues. The challenge is, in concert with other scientific disciplines, to nurture and support the required transformation of chemistry science and its industrial application, in order to deliver future options and new technologies that are intrinsically sustainable, also enabling competitiveness of the EU chemical industry. This SSA aims to support and increase sustainable chemistry innovation in Europe, by facilitating the establishment of a European Technology Platform for Sustainable Chemistry (ETP-SC). The ETP-SC will be a multi-stakeholder activity that will comprise involvement of all relevant stakeholders from e.g. industry, academia, policy makers and regulators, financial community, societal organisations. The SSA will organise general as well as expert workshops, to identify where Europe want to be with regards to sustainable chemistry in the next 15-20 years (vision paper), what science gaps and barriers exist to reach that vision (Strategic Research Agenda, SRA), how to fill the science gaps by means of collaborative R&D, both on European and national levels, and how to remove the barriers to sustainable chemistry innovation (SRA implementation plan). An extensive communication plan will ensure engagement and open communication with these stakeholders, for which the Consortium is uniquely positioned regarding its industrial, academic and technological representation. The SSA will make a significant contribution to the EU's 'Lisbon' and 'sustainable development' strategies. The ETP-SC work will be framed within established EU policy with respect to the Framework Programmes, Sustainable Development, Biotechnology and Nanotechnology, Materials and Processes' priorities.

Partners:

Nb	Partner Legal Name	Country
1	European Chemical Industry Council	BE
2	EuropaBio	BE
3	Society for Chemical Engineering and Biotechnology e.V.	DE
4	Gesellschaft Deutscher Chemiker	DE
5	Royal Society of Chemistry	UK

Call FP6-2004-Global-3 WSSTP 018379

Title **WATER SUPPLY AND SANITATION TECHNOLOGY PLATFORM**

Activity code: SUSTDEV-2004-3.IX Instrument: SSA Duration: 19 months

Co-ordinator Mrs Adriana Hulsmann

Organization Kiwa N.V.
NL-3430 BB Nieuwegein

Total Costs: 976.054 €

Proposed EC grant: 670.000 €

Abstract:

This Specific Support Action concerns the Water Supply and Sanitation Technology Platform. The SSA will provide the organisational, management and scientific support necessary to facilitate the process of the Technology Platform in order to produce the deliverables: Vision Document, Strategic Research Agenda and an implementation plan for the water sector in Europe. This is done by the Secretariat a delegation of members of the WSSTP Board, together with and on behalf of the Board. The three deliverables will be used as input for FP7. The mission of the WSSTP is "to strengthen the competitiveness and the potential for technological innovation of the European water industry, of water professionals and research institutions through the development of a strategic science and research agenda, to meet global challenges and regional demands of ensuring safe, secure and sustainable water supply for human societies and for the environment and sanitation services, within the framework of the available water resources". The WSSTP will contribute to the MDG's of the Johannesburg Summit and the European Union Water Initiative, through active participation of developing countries and of organisations that work in developing countries in the platform. The joint focus of the production of the three main is a very unique process of bringing together the various groups of stakeholders. The Water Supply and Sanitation Technology Platform will have a number of important measurable objectives, to which this SSA will contribute significantly: • The production of the abovementioned documents. • competitiveness, by providing a multi-stakeholder framework. • results of the platform.

Partners:

Nb	Partner Legal Name	Country
1	Kiwa N.V.	NL
2	European Committee of Environmental Technology Suppliers Associations	BE
3	Netherlands Organisation for Applied Scientific Research	NL
4	UK Water Industry Research Limited	UK
5	NTNU - Norwegian University of Science and Technology	NO
6	Institute of Advanced Studies on Sustainability of the European Academy of Sciences and Arts	DE

Call FP6-2004-Global-3 African Water 518066-1

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

Activity code:	SUSTDEV-2004-3.IX	Instrument: SSA	Duration:	24 months
Co-ordinator	Mr. Neil Runnalls			
Organization	Natural Environment Research Council		Total Costs:	231.600 €
	UK-SN2 1EU Swindon		Proposed EC grant:	231.600 €

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 defined 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, NGO's, charitable foundations and the private sector.

Partners:

Nb	Partner Legal Name	Country
1	Natural Environment Research Council	UK
2	Ungemi Water	ZA
3	Loughborough University	UK
4	Hydrophil	AT

Call FP6-2004-Global-3 NORMAN 018486

Title **Network of reference laboratories and related organisations for monitoring and bio-monitoring of emerging environmental pollutants**

Activity code: SUSTDEV-2004-3.VII.1.2.1 Instrument: CA Duration: 36 months

Co-ordinator Ms Valeria DULIO

Organization INSTITUT NATIONAL DE L'ENVIRONNEMENT INDUSTRIEL ET DES RISQUES
FR-60550 VERNEUIL - EN - HALATTE

Total Costs: 1.990.721 €

Proposed EC grant: 1.900.000 €

Abstract:

NORMAN co-ordination action will develop and implement a methodology within a network of reference laboratories and related organisations (including standardisation bodies) to enable and improve EU capabilities for monitoring emerging pollutants, thereby ensuring the production of data that are valid, comparable and fit for purpose across EU25. The project will align the activities of the network with the requirements of organisations / stakeholders in charge of risk assessment and management. It will organise, via workshops, the EU-wide exchange of information between monitoring experts, environmental agencies and standardisation and regulatory bodies. NORMAN will facilitate access to existing data / information from research programmes by developing a database of i) leading European experts, organisations and projects dealing with emerging pollutants; ii) geo-referenced monitoring data; iii) mass spectrometric information on provisionally identified and unknown substances. Particular effort will be made to enable the final user to interpret the data and judge their representativeness, quality and comparability. Moreover, protocols for validation, harmonisation and dissemination of chemical and biological monitoring methods (including sampling methodology) will be provided. These protocols will be developed into technical guidelines / reports (e.g. CEN TR). To test these protocols and the ability of the network to meet EU demands for monitoring emerging pollutants, three case studies will be undertaken, involving partners from a wide selection of Member States, including New Member States. This will enable benchmarking of the competencies and expertise and foster the transfer of knowledge and techniques. The final goal of the project is the implementation of a network operating after the end of the project. The organisation of the follow-up of the network will therefore be one of the main tasks of the project.

Partners:

Nb	Partner Legal Name	Country
1	INSTITUT NATIONAL DE L'ENVIRONNEMENT INDUSTRIEL ET DES RISQUES	FR
2	BRGM	FR
3	Centre National du Machinisme Agricole, du Genie Rural, des Eaux et des Forets	FR
4	Netherlands Institute for Fisheries Research	NL
5	Vrije Universiteit Amsterdam	NL
6	Umweltbundesamt Federal Environmental Agency	DE
7	IWW Rheinisch-Westfaelisches Institut fuer Wasserforschung gemeinnuetzige GmbH	DE
8	CONSEJO SUPERIOR DE INVESTIGACIONES CIENTIFICAS	ES
9	Jožef Stefan Institute	SI
10	Biosense Laboratories AS	NO
11	Stockholms Universitet	SE
12	The Environment Agency	UK
13	WATER RESEARCH INSTITUTE	SK
14	Environmental Institute, s.r.o.	SK
15	NPL Management Ltd	UK
16	European Commission Joint Research Centre - Institute for Evironment and Sustainability - Inland and Marine Waters Unit	IT

17	Fraunhofer-Gesellschaft zur Förderung der angewandten Forschung e.V.	DE
18	National Institute of Public Health and the Environment	NL

Call FP6-2004-Global-3 TESTNET 018311

Title **Towards European Sectorial Testing Networks for Environmental Technologies**

Activity code: SUSTDEV-2004-3.VIII.1 Instrument: STREP Duration: 36 months

Co-ordinator Mr Peter Oostendorp

Organization Netherlands Organisation for Applied Scientific Research (TNO)
NL-2600 JA Delft

Total Costs: 3.565.674 €
Proposed EC grant: 1.575.000 €

Abstract:

Given that the market for environmental technologies (ETs) is an international one and that the verification and testing of these technologies occur only to a limited extent, there is an urgent need to set up verification and testing centres for ETs.

TESTNET aims to enhance the application of ETs through the development of a European structure for the production of reliable and independent performance data for ETs. TESTNET will cover four technology areas: energy technology, water treatment, clean production and environmental monitoring. The strategic objective of TESTNET will be met through: - the identification of promising ETs and innovative solutions for verification; - testing and verifying new and existing ETs;. - validation of t technology areas and for different types of organisational solutions; - and networks, including a financially sound and reliable structure and organisation as well as the involvement of relevant stakeholders in the networks. TESTNET will provide a powerful boost to the execution of the actual Environmental Technologies Action Plan (ETAP), in which one of the priorities is to launch testing networks for ETs. The European Commission is currently examining the best concept for a European ET testing programme. The outcome of this study will be analysed and used as input in TESTNET. Lessons learned from the EPA Environmental Technology Verification programme in the United States will also be incorporated in the project. A consortium of European sector organisations and leading research institutes in the field of ETs has been composed to ensure that the tasks of TESTNET are completed. The consortium spans the EU-25, including representation from the new member states, and has considerable participation among SME's (26%).

Partners:

Nb	Partner Legal Name	Country
1	Netherlands Organisation for Applied Scientific Research (TNO)	NL
2	National Centre for Scientific Research "Demokritos"	GR
3	DHI Water & Environment	DK
4	Glówny Instytut Górnictwa Central Mining Institute	PL
5	IVL Swedish Environmental Research Institute Limited	SE
6	Kiwa N.V.	NL
7	FUNDACIÓN INASMET	ES
8	VTT Technical Research Centre of Finland	FI
9	Agence de l'environnement et de la maîtrise de l'énergie	FR
10	Association des Exploitants d'Equipements de Mesure de Régulation et d'Automatisme	FR
11	Institute for Prospective Technological Studies	ES
12	The European Association for the Promotion of Cogeneration	BE
13	European Committee of Environmental Technology Suppliers Associations	BE

Call FP6-2004-Global-3 PROMOTE 518074-1

Title **Efficiency control and performance verification of improved approaches for soil-groundwater protection and rehabilitation**

Activity code: SUSTDEV-2004-3.VIII.1 Instrument: STREP Duration: 36 months

Co-ordinator Dr. Thomas Track

Organization DECHEMA Gesellschaft fuer CHemische TEchnik und Biotechnologie e.V.
DE-60486 Frankfurt/Main

Total Costs: 2.366.931 €

Proposed EC grant: 1.562.204 €

Abstract:

The overall aim of PROMOTE is to set up an efficiency control and performance verification (ECV) system for soil-groundwater protection and rehabilitation based on a more generic testing and performance verification concept, in a network of testing centres. This is in direct accordance with the ETAP procedure. A strong impact of PROMOTE is to be expected concerning a faster market introduction of novel techniques hence strengthening the competitiveness of technology developers in Europe. This guaranteed by an extensive integration of SME's and Eastern European partners. PROMOTE will gain the potential to act as a germ cell of a pre-normative verification system, overcoming implementation barriers and bridging the gap between innovative and standardised techniques. Main scientific-technic objectives are: -Assessment of existing verification tools and identification of demands on techniques to support the implementation of the WFD, the GWD and the evolving Soil Protection Strategy -Elaboration of a generic testing and performance verification concept designed to be basically applicable to a broad range of environmental technologies -ECV system development for remediation and monitoring approaches in soil-groundwater systems -ECV system verification on a reference and a field site -ECV system transfer to related environmental technologies - Establishing a ECV platform by including the "CEN Workshop" tool beyond the project The ECV system set-up is divided in four phases: (1) Organisational phase, (2) Operational phase, (3) Assessment and verification phase and (4) ECV establishment and dissemination strategy, comprises a conceptual review and testing of the ECV applicability, the ECV general validity, comparison of ECV with other systems and stakeholder consultation. Phase (4) includes the ECV transfer to improved remediation technologies, the elaboration of standardisation related issues and the establishment of a common ECV with other testing networks.

Partners:

Nb	Partner Legal Name	Country
1	DECHEMA Gesellschaft fuer CHemische TEchnik und Biotechnologie e.V.	DE
2	UW Umweltwirtschaft GmbH	DE
3	Stichting GeoDelft	NL
4	Panstwowy Instytut Geologiczny (Polish Geological Institute)	PL
5	Consejo Superior de Investigaciones Cientificas	ES
6	Universität Stuttgart	DE
7	Innovative Messtechnik Weiss	DE
8	Municipality of Bydgoszcz	PL
9	Vlaamse Instelling voor technologisch onderzoek (Flemish Institute for Technological Research)	BE
10	Comité Européen de Normalisation	BE
11	Université Louis Pasteur Strasbourg	FR