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Agence de l'Environnement
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European Commission DG RTD

**Environment and Sustainable Development (FP5)
Global Change and Ecosystems (FP6)**



The Water Cycle and Soil-related Aspects

Program of the EU-Workshop

**The Functioning and Management of the
Water-Soil-System at River-Basin Scale:
Diffuse Pollution and Point Sources**

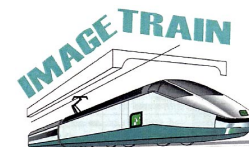
**Orléans, France
26th – 28th November 2003**

Organised by the EU projects

- JOINT – Joint Technical Approach for Decontamination of Soil and Groundwater
- IMAGE-TRAIN – Innovative Management of Groundwater Resources in Europe Training and RTD Co-ordination Project

Hosted by

- BRGM – Bureau de Recherches Géologiques et Minières



Background and Objectives of the Workshop

Research funded by the European Commission has been the ignition for a better understanding and management of environmental issues in various aspects and it is still going on. However, funds must be allocated wisely. Within this workshop, the outcome of recent and ongoing projects will be evaluated and future research needs defined. It is therefore a research management tool to aid the European Commission in the decision-making process for future funding.

The 5th Framework Programme for Research, Technology Development and Demonstration started in 1998 with a duration of 5 years. The projects belonging to the action line "Prevention of Pollution" within the key action "Management and Quality of Water" are just before finishing or recently completed. The 6th Framework Programme for the period 2002 – 2006 with its sub-priority "Global Change and Ecosystems" covers under the issue "The Water Cycle and Soil-related Aspects" numerous aspects for which the findings and results of FP5 projects might be of highest relevance.

The main objectives of the workshop are

- to review the progress of projects funded under 1.4 Pollution Prevention of the Water Key Action of the Environment and Sustainable Development Programme (FP5)
- to build the bridge between FP5 and FP6
- to inform about the new instruments of FP6 and to discuss both their scientific and project management aspects
- to identify future short-, medium- and long-term priority research tasks.

The workshop will present a seamless account of all the above mentioned FP5 projects. Those projects that are not covered in detail during the oral presentations are invited to participate in the poster sessions. A compilation of all projects including an exhaustive contact list will be part of the workshop proceedings.

All participants will be asked to join actively in the discussions. The expertise of highly qualified persons that are involved in environment pollution issues on different levels and with different affiliations will help to identify barriers for implementation of new technologies as well as future needs in research.

All contributions as well as the summed-up results of the workshop discussions will be edited for the workshop proceedings and compiled to provide direct input to the "European Sustainable Land and Groundwater Management Information System" EUGRIS.

This EU-workshop is jointly co-organised by the accompanying measures JOINT and IMAGE-TRAIN, hosted by the BRGM, France, and funded by the European Commission within FP5.

Organising committee: Thomas Ertel, Dominique Darmendrail, Jürgen Büsing, Gundula Prokop, Damia Barcelò, Astrid Groegler

Projects actively involved in the workshop: ABACUS, AGRIBMPWATER, CORONA, DESPRAL, DIMDESMOTOM, EUGRIS, GRACOS, IMSIS, IMAGE-TRAIN, INCORE, LIBERATION, MAROC, METALBIOREDUCTION, ORGONATE, PEGASE, PEREBAR, PhytoDec, PIRAMID, PROWATER, PURE, SEDNET, SENSPOL, SOWA, TRACE-Fracture, WATCH, WELCOME

26th November 2003

8.30 – 9.00 *registration*

Welcome Session

- 9.00 – 9.10 **Welcome:** *P. Vesseron, president of BRGM, Orléans*
- 9.10 – 9.20 **Welcome:** *Th. Trouvé, DDPR, French Ministry of Environmental Protection*
- 9.20 – 9.40 **Introduction: transition from FP5 to FP6:** *A. Tilche, European Commission DG RTD*

Setting the Scene

Chairperson: D. Darmendrail, BRGM, France
Rapporteur: M. Schamann, Federal Environment Agency, Austria

- 9.40 – 10.15 **The role of workshops as a research management tool,** *T. Ertel, UW Umweltwirtschaft, Germany*
- 10.15 – 10.45 **A screening of research results in the area pollution prevention – ready for implementation?** *M. Bittens, Universität Tübingen, Germany*

10.45 – 11.15 *coffee break*

Monitoring and Site Characterisation

Chairperson: L. Diels, VITO, Belgium

Rapporteur: L. Alberti, Politecnico di Milano, Italy; Piotr Cofalka, IETU, Poland

- 11.15 – 11.35 **IMSIS** – In situ monitoring of landfill related contaminants in soil and water by infrared sensing: **The next steps to sell an innovative sensor.** W. Konz, IPM/FHG, Germany
- 11.35 – 11.55 **TRACe-Fracture** – Towards an improved risk assessment of the contaminant spreading in fractured underground reservoirs: **How to operate risk management zones in fractured aquifers.** C. Tsakiroglou, ICE/HT FORTH, Greece
- 11.55 – 12.15 **Summary of topic-related FP5 projects: Did we match stakeholder needs?** W. Gevaerts, ARCADIS Gedas, Belgium
- 12.15 – 12.40 **discussion, conclusions and lessons learned**

12.40 – 14.00 *lunch break*

Risk Assessment

Chairperson: V. Dries, OVAM, Belgium

Rapporteur: M. Bittens, Universität Tübingen, Germany

- 14.00 – 14.20 **GRACOS** – Groundwater risk assessment at contaminated sites: **Efforts and strategies to reach a broad implementation of results.** H. van der Sloot, ECN, Netherlands
- 14.20 – 14.40 **ABACUS** – Evaluation of availability to biota for organic compounds ubiquitous in soil and sediments: **Conclusions relevant for soil thematic strategy.** J. Parsons, Universiteit van Amsterdam, Netherlands
- 14.40 – 15.00 **LIBERATION** – Development of a decision support system for sustainable management of contaminated land: **How will site developers make use of the system to manage the risks?** J. Jensen, National Environment Research Institute, Denmark
- 15.00 – 15.20 **Summary of topic-related FP5 projects: Did we match stakeholder needs?** B. Grundfelt, KEMAKTA, Sweden
- 15.20 – 15.45 **discussion, conclusions and lessons learned**

15.45 – 16.15 *coffee break*

Remediation of Groundwater and Contaminated Soil

Chairperson: H.-P. Koschitzky, Universität Stuttgart, VEGAS, Germany

Rapporteur: K.-E. Roehl, Universität Karlsruhe, Germany

- 16.15 – 16.35 **ORGONATE** – On-site remediation of groundwater contaminated by polar organic compounds using novel adsorption technology: **Benchmarking of an innovative technology.** K. Levsen, Fraunhofer Institut ITEM, Germany
- 16.35 – 16.55 **PIRAMID** – Passive in situ remediation of acidic mine / industrial drainage: **Implementation of a technology.** A. Jarvis, IMC Group, England
- 16.55 – 17.15 **PHYTODEC** – A decision support system to quantify cost-benefit relationships of the use of vegetation: **How to address the end-users and their needs.** J. Japenga, Wageningen University and Research Center, Netherlands
- 17.15 – 17.35 **PURE** – Protection of groundwater resources at industrially contaminated sites: **Main steps to reach significant cost reductions.** A. Sinke, TNO/MEP, Netherlands
- 17.35 – 17.55 **Summary of topic-related FP5 projects: Did we match stakeholder needs?** E. Vik, AQUATEAM, Norway
- 17.55 – 18.20 **discussion, conclusions and lessons learned**
- 18.20 – 19.00 **Poster Session**

Diffuse Pollution

Chairperson: D. Barcelò, CSIC, Spain

Rapporteur: G. Prokop, Federal Environment Agency, Austria

- 9.00 – 9.20 **PEGASE** – Pesticides in European groundwaters. C. Mouvet, BRGM, France
- 9.20 – 9.40 **agriBMPwater** – systems approach to environmentally acceptable farming: **Results in the perspective of potential users such as farmers, land managers and water directors.** R. Laplana, Cemagref, France
- 9.40 – 10.15 **The Diffuse Phosphorous Pollution Cluster**
- PROWATER** – Program for the prevention of diffuse water pollution with phosphorus from degraded and re-wetted peat soils. P. Leinweber, Universität Rostock, Germany
- DESPRAL** – An environmental soil test to determine the potential from sediments and phosphorous transfer in run-off from agricultural land. P. Withers, ADAS, England
- 10.15 – 10.25 **Summary of topic-related FP5 projects: Did we match stakeholder needs?** G. Prokop, Federal Environment Agency, Austria
- 10.25 – 10.45 **discussion, conclusions and lessons learned**
- 10.45 – 11.15 *coffee break*

Integrated Management of Groundwater Pollution and Contaminated Land

Chairperson: J. Vegter, Technical Soil Protection Committee, Netherlands

Rapporteur: D. Darmendrail, BRGM, France

- 11.15 – 11.35 **INCORE** – Integrated concept for groundwater remediation: **Demonstration and pilot projects as a main key to overcome barriers for future application.** M. G. Tanda, University of Parma, Italy; T. Ptak, Universität Tübingen, Germany
- 11.35 – 11.55 **WELCOME** – Development of integrated management system for prevention and reduction: **The interaction between field & lab investigations, modelling and the**

managing of megasites from the perspective of the end-users. H. Rijnaarts, TNO/MEP, Netherlands

- 11.55 – 12.15 **WATCH** – Water catchment areas: **tools for management and control of hazardous compounds: A model how to deal with risk management zones and to implement the GWD.** T. Track, DECHEMA, Germany
- 12.15 – 12.35 **Summary of topic-related FP5 projects: Did we match stakeholder needs?** T. Ertel, UW Umweltwirtschaft, Germany
- 12.35 – 13.00 **discussion, conclusions and lessons learned**
- 13.00 – 14.15 *lunch break*

EU Soil and Groundwater Policies

Chairperson: W. Blum, University of Natural Resources and Applied Life Sciences (BOKU), Austria

Rapporteur: M. Schamann, Federal Environment Agency, Austria

- 14.15 – 14.40 **Current status of the Groundwater Directive,** P. Quevauviller, European Commission, DG ENV
- 14.40 – 15.00 **Thematic strategy for soil protection,** Joop Vegter, Technical Soil Protection Committee, Netherlands

Parallel Topic Sessions

- 15.00 – 16.30 **Workshop discussion: barriers for implementation and future research needs for each topic in separate sessions:**
- Monitoring and Site Characterisation,** L. Diels, VITO, Belgium; W. Gevaerts, ARCADIS GEDAS, Belgium
- Risk Assessment,** V. Dries, OVAM, Belgium; Martin Bittens, Universität Tübingen, Germany
- Remediation of Groundwater and Contaminated Soil,** H.-P. Koschitzky, Universität Stuttgart, VEGAS, Germany; K.-E. Roehl, Universität Karlsruhe, Germany
- Diffuse Pollution,** D. Barcelò, CSIC, Spain; G. Prokop, Federal Environment Agency, Austria

Integrated Management of Groundwater Pollution and Contaminated Land, J. Vegter, *Technical Soil Protection Committee, Netherlands*; T. Ertel, *UW Umweltwirtschaft, Germany*

16.30 – 17.00 coffee break

17.00 – 17.30 **Sum-up of the most important results of the topic sessions**, W. Gevaerts; Martin Bittens; K.-E. Roehl; G. Prokop; T. Ertel

Tools for European Research Management

17.30 – 17.50 **EUGRIS** - European sustainable land and groundwater management information system, **featuring SOWA** – Integrated soil and water protection as first exemplary input. J. Frauenstein, *Federal Environment Agency, Germany*

17.50 – 18.30 **Poster Session + EUGRIS corner**

20.00 Workshop Dinner

28th November 2003

Integrated Modelling of the River-Sediment-Soil-Groundwater System: A Proposal for an Integrated Project (AQUATERRA)

Chairperson: P. Grathwohl, Universität Tübingen, Germany
Rapporteur: P. Freyssinet, BRGM, France

9.00 – 9.35 **The administrative management of an integrated project (IP):**

- **Structure, tools and communication**, E. Frank, *Attempo Service GmbH, Germany*

- **Financial control and auditing**, E. Rille, *European Commission, DG RTD*

9.35 – 10.05 **Scientific structure and objectives**, D. Darmendrail, *BRGM, France*

10.05 – 10.25 **Quality control, training and the envisaged exploitation**, E. Frank, *Attempo Service GmbH, Germany*

10.25 – 11.00 coffee break

Current and Future Research Needs in Soil and Groundwater Management Under Changing Climatic Conditions

Panel Discussion: From understanding to management of the soil-water-system at river basin scale

Chairperson: W. Blum, University of Natural Resources and Applied Life Sciences (BOKU), Austria

Participants: Invited experts in the field of soil sciences, sediments, hydrogeology, geochemistry, monitoring, risk management and river basin management

11.00 – 11.30 **introductory statements**

11.30 – 13.00 **discussion**

13.00 – 13.15 **Workshop Conclusions**, J. Büsing, *European Commission, DG RTD*

end of workshop

Location and travel information

Workshop location:

Scientific and Technical Centre, BRGM
3 avenue Claude Guillemin - BP 6009
45060 Orléans Cedex 2 – France
Tel. : +33 (0)2 38 64 34 34 Fax : +33 (0)2 38 64 35 18



Orléans is located approximately 120 km south of Paris. It is well connected from Paris by train (e.g. tuesday, nov 25th: departure 18:03 Paris Austerlitz, arrival: 19:08 Orléans Station). Trains leave almost every hour. Schedules can be checked under www.sncf.com.

Both Paris airports have a frequent train or subway connection to the station Paris Austerlitz, where you can change into the train to Orléans.

Airport shuttle buses from Paris airports Orly (48,-€) and Roissy/Charles de Gaulle (55,- €) will be available on request. Please specify date and time of arrival as well as flight number two weeks

or longer before your arrival. Reduced group fares will be arranged if possible. Located in the south of Paris, Orly is more convenient for travelling on to Orléans.

If you arrive by train, leave the train at the station Orléans Aubrais or Orléans Centre. BRGM is located at the district Orléans-la-source, which is at a distance of the train station of approx. 8 km. You can either use the tram (Ligne A, get out at the station Chèques Postaux) or continue by taxi.

If you need accommodation, please see below a list of hotels in the vicinity of BRGM Orléans.

Hotel Kyriad
Orleans Olivet La Source
975, Rue de Bourges
45160 Olivet
Tel. +33 (0) 238 69 20 55
Fax +33 (0) 238 63 17 72



Hotel Campanile
Orléans La Source
326, Rue Chateaubriand
45100 Orléans La Source
Tel. +33 (0) 238 63 58 20
Fax +33 (0) 238 69 02 60

Hotel Anchoage
Parc de Limère, Ardon
45160 Orléans
Tel. +33 (0) 238 49 99 99
Fax +33 (0) 238 49 99 00

Hotel Novotel La Source
2, Rue Honoré de Balzac
45100 Orléans
Tel. +33 (0) 238 63 04 28
Fax +33 (0) 238 69 24 04

Registration

Early registration is highly recommended. If you wish to attend please complete the attached registration form before 31st October 2003 and send it to the JOINT technical secretariat:

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