

European Federation of Geologists

GEONEWS June 2007

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1.GENERAL NEWS

Past Events

-EFG natural hazards conference, 25 May 2007, Rome.

One of the EFG focal points is the direct communication with policy-makers about geoscientific matters. Especially on natural hazards we have made a lot of achievements. In this context we organised a one-day conference to discuss “reducing the risk of natural hazards in Europe by integrating knowledge and best practices from experts, insurance companies and policy-makers”. We consider that improved communication between the different groups is of significant importance.

The conference was attended by approximately 100 people, including representatives from the European Commission, the European Parliament, the Italian and French ministries of Environment, ESA, insurance association Asscom and geoscientific experts from national geological surveys, universities and consultancies from different European countries and beyond (Ukraine). The presentations provided a good overview of the current status, insight in the Seventh Framework Programme of DG Research, the advanced stage on taking mitigation measures of some countries (Switzerland) and the need for improvement in others. A lot of good examples were shown on the use of risk maps in land-use planning and an overview from the EC working group EXCIMAP for the floods directive. ESA and a report on the Terrafirma project illustrated the high quality monitoring can be achieved from space.

The meeting was concluded by recommendations from the EFG towards policy-makers. Since there is often a tendency to concentrate on reaction to disasters, rather than taking preventive and mitigation measures, we have emphasized that hazard identification and risk reduction can significantly help in reducing the costs and effects of natural hazards. Especially:

- 1) Land-use management: pro-active identification of risk zones, creating multi-hazard risk maps and fully adopt in land-use management. It is recommended to create a European directive for national legislation to include geo-scientific investigations in land-use planning for areas identified to be at risk.
- 2) Create awareness and educate: train land-use managers, policy-makers and disaster management teams in vulnerable areas.
- 3) Early warning: strongly improve the use of and integration with observations from space and other early warning systems.

All presentations can be downloaded from the EFG website. For feedback or questions, please contact our EFG office. E-mail: efgbrussels@gmail.com

Future Events

-Efg stand in the European Green Week 'Past lessons Future challenges', 12- 15 June 2007, Charlemagne Building, Brussels

Linking in with the festivities for the 50th anniversary of the Treaty of Rome, Green Week 2007 will look back at 50 years of European environmental policy and will look at the future.

As past years, EFG will take this opportunity to present a stand entitled "Geology and Environmental Change". This year the stand will have the number 1 of the stands in the list of exhibitors in the Charlemagne building. Green Week will provide a unique opportunity for debate, exchange of experience and best practice among non-governmental organisations, businesses, various levels of government and the public. The thematic of the stand is based on:

- the role of geology in environmental impact assessment studies
- the role of geology in predicting future climate change

In this four days event, series of conferences and side events will take place. Some examples of conference sessions are the following:

- *Assessing the current scientific knowledge of the natural and human drivers, impacts and options to mitigate climate change*
- *The climate challenge of the 21st century - climate impacts, options and needs to adapt to climate change*

For more information and registration, please visit:
<http://ec.europa.eu/environment/greenweek/home.html>
<https://live.regware.be/GreenWeek/>

News

-INSPIRE Directive has been officially published

The Directive 2007/2/EC of the European Parliament and the Council, launched 14 April 2007 and establishing an Infrastructure for Spatial Information in the European Community (INSPIRE), was published in the official Journal on 25 April 2007. It came into force on 15 May 2007, and we recommend a review by the experts on this field. For more information and to download the full text of the directive please visit the following website: <http://www.ec-gis.org/inspire/>

-On-line Public Consultation on ERA

The European Commission released the [Green Paper](#), "The European Research Area (ERA): New Perspectives" on 4 April 2007. There is an on-line public consultation on the issues about the Green

Paper open until August 2007. The debate is open to everyone with an interest in the realization of a European knowledge society. In particular, the Commission expects to receive responses from research institutions (including universities), researchers, industry, civil society organizations, national and regional public authorities as well as the general public. The Commission will use the results of the debate to prepare initiatives that will be proposed in 2008.

Please visit: http://ec.europa.eu/research/era/consultation-era_en.html - greenpaper

-Impressive demand for first European Research Council grants. Over 9 000 proposals for first ERC grants.

The first deadline of this programme, created some months ago, was on 25 April 2007. This was the first call for the Starting Independent Investigator Grants of the European Research Council and it has registered 9.167 proposals. Basically, the target of ERC is to support fundamental research without any of the political strings normally attached to European Union funding.

The breakdown of proposals according to their main scientific focus is approximately as follows:

- Physical sciences and engineering: 46%
- Life science including medicine: 37%
- Social sciences and humanities: 17%

EFG has informed you in past issues about the great possibilities for Starting Independent Geology Researchers. We want to emphasize that Earth Sciences are topics considered in this recent call for proposals, concretely in **Panel PE8 - Earth system science**: physical geography, geology, geophysics, meteorology, oceanography, climatology, ecology, global environmental change, biogeochemical cycles, solar planets, natural resources management and **The Panel PE7 - Universe science** that also covers some fields related to geology.

We also want to remind you that the ERC Advanced Investigator Grant will be launched in Autumn 2007.

At the moment, we have a great opportunity opportunity to promote the profession and practice of geology and its relevance in the European research context. EFG wants to encourage junior and senior geology researchers to apply for ERC Starting Independent Investigator Grants and ERC Advanced Investigator Grant in future calls. Earth Sciences must be well represented in these types of programmes. It is necessary that researchers on Geology related topics show interest, in order to ensure coverage on future calls for proposals, in the same way as other scientific disciplines are commonly treated.

For more information: <http://erc.europa.eu/>

-Call for Proposals: Descartes Prize

A call for proposals for the Descartes Prize for excellence in research and science was launched on 13 April 2007, with a deadline of 17 July 2007.

The Descartes Prize contains two categories:

- The Descartes Prizes for Transnational Collaborative Research (€1.48 million) is awarded to teams having achieved outstanding scientific or technological results from European collaborative research in any field of science, including the economic, social and human sciences. This prize aims to attract experienced scientists who have made an outstanding contribution to research.
- For the Prizes for Science Communication (€195,000) the proposers must be organizations awarding prizes in the field of science communication, meaning that the presented candidature shall have received a scientific communication prize and the proposal shall be submitted to the Commission by the organization which has awarded the prize to this candidate.

For more information on the prizes:
http://ec.europa.eu/research/descartes/submit_en.htm

2. SOIL PROTECTION

Publications

-New Method to remove Arsenic from Soils

In Europe, arsenic content in soil is usually low. However, on some industrial sites, effluent discharges can lead to high concentrations of this chemical in the soil. After periods of rainfall and run-off, arsenic can also be found in water.

In this context, Indian researchers investigated the potential of siderophores to remove arsenic from contaminated soils and waters. Siderophores are small organic compounds secreted by micro-organisms under iron-starved conditions. In addition, scientific models have shown that, depending on soil conditions, these compounds are able to mobilize or immobilize heavy metals in polluted soils. Overall, this study provides new insights into the decontamination and the bioremediation of soils.

Anupa Nair et al., 2007. Production and Characterization of Siderophores and its Application in Arsenic Removal from Contaminated Soil, Water Air Soil Pollution 180:199-212.

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3. ENGINEERING GEOLOGY

Future Events

-4th International Conference on Earthquake Geotechnical Engineering, 25-28 June 2007, Thessaloniki, Greece.

The conference will address a wide range of topics spanning a number of areas in which ongoing advances are made within the field of earthquake geotechnics and soil dynamics. The conference will touch on the following topics among others:

- Soil dynamics: Field and Laboratory testing
- Soil-site characterization and dynamic soil modelling
- Analytical and numerical methods
- Seismic hazard and strong ground motion
- Site effects and microzonation
- Soil-structure interaction
- Soil liquefaction and liquefaction countermeasures
- Slopes, embankments, dams and waste fills
- Earth-retaining and waterfront structures
- Shallow and deep foundations
- Underground structures

Web: <http://www.4icege.org/home.htm>

4. RESOURCES AND RESERVES—MINERALES AND THEIR SUSTAINABLE USE

Future Events

-Seminar on Exploration for metals and mineral resources in Europe, 29 June 2007, Brussels, Belgium.

The aim of this meeting is to provide information about exploration potential in Europe and the obstacles exploration companies are dealing with. All major exploration companies active in European territory will be invited to the event.

The topics that it will be treated are:

- Exploration in Europe and around the world
- Promoting exploration – a case study of success
- Exploration in Europe: Difficulties encountered
- The situation with regard to the exploration licensing in Europe
- The European potential for exploration – some technical and geological considerations
- Landscape Level Planning - an IUCN-ICMM project
- Codes of Conduct and CSR

For more information, please contact:

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5. HYDROGEOLOGY

Publications

-Pollutants in the Environment: Mobility and Fate

A wide range of chemicals such as the ones used in agriculture and by industry may leach into the surfperficial aquatic environment and underground water resources. Currently, little knowledge exists regarding the mobility and biodegradability of pollutants in soil, sediments and water and their transport throughout the environmental compartments such as soil, groundwater, sediments and surface waters. In the context of the EU-funded project AquaTerra 1 , a team of European researchers has investigated the load and concentration as well as the degradation of selected pollutants in these compartments, in order to improve understanding of their behaviour and fate. To date, they have collected more than 1,700 samples of soil, sediments and water in 5 EU river basins (Ebro, Elbe, Danube, Meuse and Brévilles) over three years and measured the content of persistent organic pollutants (POPs).

The AquaTerra project is supported by the European Commission under the 6th Framework Programme within the thematic programme “Sustainable development, global change and ecosystems”.

For more information: <http://www.eu-aquaterra.de>

J.A.C. Barth et al. (2007) « Deposition, persistence and turnover of pollutants: First results from the EU project AquaTerra for selected river basins and aquifers », Science of the Total Environment 376:40-50. Contact: Johannes.barth@uni-tuebingen.de

6. NATURAL HAZARDS

Future Events

-10th International Symposium on Landslides and Engineered Slopes, 30 Jun-4 Jul 2007, Xi'an, China.

The symposium is one of the most important activities of the Joint Technical Committee on Landslides and Engineered Slopes (JTC1) under the International Society of Soil Mechanics and Geotechnical Engineering (ISSMGE), International Society for Rock Mechanics (ISRM) and International Association on Engineering Geology (IAEG). The Symposium will be jointly organized by the three Chinese national sister societies, and the Geotechnical Division of the Hong Kong Institute of Engineers.

Symposium Themes

1. Geology, geotechnical properties and site characterization
2. Advances in analytical methods, modelling and prediction of slope behavior
3. Landslide mechanism, monitoring and warning
4. Effects of earthquakes on slopes
5. Climate, hydrology and landslides
6. Slope stabilization and protection
7. Risk assessment and management
8. Landslides in China (Invited Lectures)

Web: <http://www.landslide.iwhr.com/>

7. GEOTHERMAL ENERGY

Future Events

-Geothermal Energy Utilization Associated with Oil & Gas Development, 10-13 June 2007, Dallas, USA.

This international conference specializes in the enhancement of existing oil & gas wells for electrical production. Geothermal energy can be extracted from the well fluids using newly designed compact turbines with binary fluids. These systems are now sized to fit single wells or multiple wells with an approximate fluid temperature differential of 120°F + between produced and cooling temperatures.

Topics covered:

- Power Generation Technology Advancements
- Geothermal Resource Exploration and Assessment
- Well Longevity - Corrosion and Scaling Management
- Reservoir Engineering
- Fracturing
- Geopressure Development
- Tight Gas Sands Development
- Enhanced Geothermal Systems – International
- Green Power for Utilities (RECs)
- Regulations and Leasing
- Financing
- Demonstration Sites

For more information: <http://www.smu.edu/geothermal/>

8. JOB OPPORTUNITIES

**-Brought by IAEH - the International Association for Environmental Hydrology,
8 April 2007.**

- 1 - Hydrology Jobs - Hydrologist
- 2 - Hydrogeology Jobs - Geoscience Education
- 3 - Hydrology Jobs - Hydrologic Processes
- 4 - Hydrogeology Jobs - Senior Hydrogeologist
- 5 - Hydrogeology Jobs - Logging Geophysicist
- 6 - Hydrogeology Jobs - Environmental Specialist
- 7 - Hydrology Jobs - Sr Civil Engineer / H&H
- 8 - Hydrogeology Jobs - Tucson Water
- 9 - Post jobs at hydrology-jobs.com

For more information click here:

<http://www.hydroweb.com/HydroNews/hydrology-news-89.html>

*We invite all members to forward items of news or general interest to fellow members to
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