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NEWS

• EPOS session @ EGU 2012

The European Geosciences Union (EGU) General Assembly 2012 is approaching; it will be held at the Austria Center Vienna (ACV) in Vienna (Austria), from 22nd to 27th April 2012. EPOS will have an active contribution to the Assembly with session SM1.4/G6.2/G11.6 - Integrating large-scale European Research infrastructures for solid Earth Sciences: from data centers to core services. The aim of this session is to present and discuss long-term integration plans of research infrastructures, inviting key data providers and representatives from data centers to contribute with the ambitious goal of presenting data infrastructures and meet the user needs. The session will also focus on recent outstanding innovations on ICT and e-science. More program details will be made available soon on the EPOS website (www.epos-eu.org).

• Supersites pre-proposals approved

EPOS community encouraged the submission of three proposals to the FP7-ENV-2012-two-stage call with the aim to promote the Supersites initiative in Europe. All of them passed the first stage of revision and will be soon submitted to the second round of the EC evaluation process, which is expected to be concluded within two months. The three pre-proposals focus on some of the most active tectonic regions in Europe (Marmara Sea, Italy and Iceland), where high-quality monitoring research infrastructures are operating. These efforts are part of the EPOS initiatives to support the Supersites within the GEO work program.

Claudia Delfini | EuroGeoSurveys Communication Officer

EuroGeoSurveys

In order to create safe, healthy and wealthy places to live in, it is vital that we understand our planet. At national level the collection of information on the state of the solid Earth and its processes is normally mandated to Geological Surveys. In fact, a Geological Survey is the national institution responsible for the geological inventory, monitoring, knowledge and research for the security, health and prosperity of the society. And EuroGeoSurveys (EGS) is the organization representing the Geological Surveys from 33 countries around Europe. With one member for each country of the European Union and beyond, including the Russian Federation and Ukraine, the EGS network covers the whole continent.

EGS' principal purpose is to provide geoscientific knowledge that underpins European policies and regulations for the benefit of society. Naturally, in our day-to-day activities, we contribute to the merging of economic, environmental and social agendas. Engaging a joint workforce of several thousands of geoscientists, also involving regional geological surveys in Germany, Italy and Spain, we strive to be the first body to be contacted when there is an international need for European geodata, or 'geo-help'.

For this reason EGS works on a daily basis with the EU institutions, and is considered the natural source of information on Earth science issues and relevant downstream applications in Europe. The General Secretariat is based in the European Quarter of Brussels close to the European Commission, the EU Council, the European Parliament, and the political seat of NATO.

EGS' operational strategy is based on the cooperation between national institutions, which enables to synergistically integrate both information and activities of member organizations. This has allowed EGS to make significant progress over the years, permitting geology to become a topic deserving great attention on the European agenda.

In order to enable a quick but high quality response to requests for information and advice, EGS runs a number of Expert Groups in areas such as Carbon Capture and Storage, Earth Observation, Geochemistry, Spatial Information, Marine Geology, Mineral Resources, Water Resources, GeoEnergy, Natural Hazards, Soils Resources, as well as International Cooperation and Development or Communication to improve on external relations, dissemination and outreach. The Expert Groups consist of a panel of leading scientists from the member organizations of EGS who meet on a regular basis and provide technical support to the Secretariat.

Having built its reputation as the leading source of European geological expertise to the European Institutions, EGS is now looking to develop its reputation in the private sector as well as its public profile through the Communication Strategy 2010-2016. EGS' international profile, already consolidated through association with international geological organizations such as the International Union of Geological Sciences (IUGS) or as a participating organization in the Global Earth Observation System of Systems (GEOSS), has recently gained momentum through participation in outstanding projects (such as OneGeology). Most notably in 2010 agreements were signed for increased collaboration with the European Environment Agency (EEA) and the U.S. Geological Survey (USGS).

Already consolidated EU priorities and emerging ones, such as those induced by globalization and the financial crisis, have opened a series of challenges for geosciences, forcing geological surveys to re-organize themselves. EGS is preparing to evolve again to even more successfully deal with those challenges.



Luca Demicheli | EuroGeoSurveys Secretary General

IN EVIDENCE

• The French EPOS initiative receives €9.3M

The French seismologic and geodetic network - RESIF (Réseau Sismologique et géodésique Français) - proposal was successfully evaluated by the Ministry of research in the end of 2011 and has been granted €9.3M of the national EQUIPEX program envelope. RESIF is planned as a major French long-term contribution to EPOS. RESIF unites all the universities and research institutions in solid Earth sciences in France to build a single interdisciplinary research facility. The successful proposal will enable the partners to build a dense seismic broadband antenna in metropolitan France, improve the permanent GNSS (Global Navigation Satellite System) network, acquire new permanent and mobile gravimeters, and build a semi-distributed national facility for data management, distribution and archiving. RESIF is supported by the Ministry of Research (and is listed on the national roadmap for large research infrastructures), the Ministry of the Environment, several French regions and some major companies such as EDF, AXA, and TOTAL.

ANNOUNCEMENTS

• ICR1 2012

The International Conference on Research Infrastructures will take place in Copenhagen the 21th-23rd March 2012; it will be the 7th Conference on Research Infrastructures organized under the patronage of the forthcoming Danish Presidency of the European Union and the support of the European Commission. It will be an important occasion in the international cooperation for research infrastructures to strengthen the existing initiatives and to point out possible needs understanding how the international cooperation for research infrastructures can be most effective in the future and can deal with the so-called Grand Challenges. This Conference has the purpose to provide important input to the European strategy developing a shared vision for open science and contributing to the increase of a global ecosystem of research infrastructures.

• **The Solid Earth science community meetings visible in the EPOS calendar.** Through the calendar on the EPOS website an update list of meetings and initiatives is available. These events will be organized or attended by EPOS in the next eight months.

EPOS Events [Calendar View](#) [List View](#)

Friday, 27 January

- EuroGEOSS, advancing the vision

Monday, 19 March

- EPOS PP - Regional Conference F

Tuesday, 20 March

- EPOS PP - Regional Conference F

Wednesday, 21 March

- EPOS PP - Regional Conference F
- ICRI 2012 - International Conference

Thursday, 22 March

- ICRI 2012 - International Conference

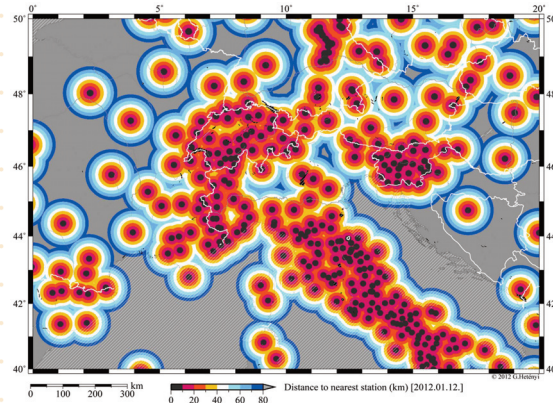
Friday, 23 March

- ICRI 2012 - International Conference

Monday, 26 March

Events shown in time zone: Rome

[Google Calendar](#) [iCal](#) [RSS](#)



Permanent broadband station coverage in Europe. Note that the average station spacing is 70 km in the US Transportable Array, 50 km in IberArray, and planned to be 40 km in AlpArray | www.seismo.ethz.ch/alparray

György Hetényi and the AlpArray working group

AlpArray: an initiative for broad co-operation in broadband seismology

AlpArray is one of the first projects that translate the philosophy of EPOS into a plan for action. EPOS aims to integrate solid Earth sciences research infrastructures across Europe. Although observational seismology is a coordinated and mature community, there are still challenges to be met. Among these is the improved interoperability of mobile station pools, both on land and on sea.

Passive seismology in Europe has a double and interlaced structure. Observatories operate spatially distributed, nationally funded permanent networks, and research institutes in most nations maintain mobile station pools. The effort needed to conduct temporary experiments with these pools is significant as it requires repeated individual scientific initiatives to secure funding for data acquisition, processing and interpretation. Often such projects federate a few research institutes to focus on local or regional targets, also using permanent station data to complement the temporary experiments. At present, with the advent of array seismology and increasingly open European boundaries, the time is ripe to step forward in many aspects.

AlpArray is an initiative that aims to investigate the structure and evolution of the lithosphere beneath the Alps. The interested parties (currently 32 institutes in 12 countries) plan to combine their existing infrastructures into an all-out effort of trans-national collaboration including data acquisition, processing, imaging and interpretation. The experiment will cover the greater Alpine area, from the French Massif Central to the Pannonian Basin and from the Black Forest to the Northern Apennines, covering this region in the heart of Europe with high-quality broadband seismometers by combining the ~400 existing permanent stations (see figure) with an additional 400+

instruments from mobile pools. This effort on land will be combined with simultaneous deployments in the Mediterranean Sea.

Beyond the scientific goals, AlpArray aims to implement also a best practice for synchronizing mobile pool operation procedures and data handling. Similar to the routine for permanent networks, temporary stations will acquire data according to community standards with archival and data retrieval from such umbrella organisations as ORFEUS. As such this will strengthen the ongoing establishment of the European Integrated waveform Data Archives (EIDA) within ORFEUS and improve mobile network interoperability (e.g. NERA NA2 focuses on including mobile data in EIDA).

AlpArray is spurred forward by the great success of the US Transportable Array, IberArray, and the emerging Sinoprobe, but as each of these initiatives it will also face challenges. Unlike these similar initiatives, the European borders still raise technical and financial issues. For the co-ordination of the project, we intend to seek umbrella funding at the European level – but we will need to leverage national funds for the implementation, maintenance, the research itself, as well as to support a single, independent data infrastructure to ensure data quality and dissemination. In this regard, AlpArray will benefit from EPOS – the AlpArray data infrastructure will likely be part of an EPOS shaped Orfeus Data Centre; and national AlpArray funding requests will support and use the EPOS infrastructures that should be part of each National Scientific Roadmap. As such, AlpArray can be viewed as a flagship EPOS project.

A first meeting, held in Zurich in October 2011, demonstrated the strong community interest in the initiative, even beyond the greater Alpine region. Therefore we are confident that this collaboration can succeed in overcoming the main practical challenges. We then hope to be left only with structural complexity of the Alps itself; geophysicists, geologists and geodynamic modellers alike are looking forward to the interpretation phase.

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