PRESS RELEASE

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A new European union of Earth science data

Scientists from 23 countries are meeting in Rome today to establish new systems for the exchange of Earth science data throughout Europe. The European Plate Observing System (EPOS) plans to establish mechanisms through which scientists can gain access to each other's specialised laboratories and to share the results of their experiments, forming in effect, a virtual Europe-wide super-laboratory.

EPOS has been financed for four years with a €4.5 million grant from the European Commission. It will provide researchers working on earthquakes, volcanoes and related hazards with detailed, continent-wide, scientific data and systems to process it in a uniform way.

Professor John Ludden, Director of the British Geological Survey (BGS), said, 'The aim of EPOS is to become like a CERN for Earth Scientists, rather than a physical locality for integrated research it will establish infrastructure to enable scientists to carry out large geophysical experiments, share data, software and facilities'.

EPOS will take advantage of the latest advances in information technology, including grid computing, to provide experts with access to data from observing stations, observatories and laboratories across Europe in consistent formats, and large-scale facilities which will allow the data to be 'mined' for correlations and previously-buried results.

In the past, limited access to cross-border data has sometimes led to less accurate characterisation of earthquakes and other seismic events near borders, and this in turn to less consistent estimates of seismic hazard in border regions. The new systems will promote the development of consistent Europe-wide maps. The availability of comprehensive information on even the smallest earthquakes will allow any patterns or progressions to be identified and tracked, with the potential to identify regions subject at greater-than-normal risk. Combined with observations of surface processes – for example, those that give rise to landslides – the EPOS scientists hope that it will eventually become possible to identify locations where specific safety measures can be addressed.

Massimo Cocco, Project Director of EPOS and part of the Istituto Nazionale di Geofisica e Vulcanologia of Italy (INGV), said, 'This project will result in a step change in our ability to manage large volumes of Earth science data across Europe heralding a new understanding of Earth processes'.

The BGS will lead the UK community in this project. It already manages the permanent geophysical observatories of the UK which are integrated into global geophysical networks. The project will allow the UK to play a full role in European Geophysics including delivering solutions to understanding natural hazards and underground geological storage.

Italy, France, the United Kingdom, Germany, Switzerland, the Netherlands, Denmark, Greece, Turkey, Romania, Portugal, Spain, Norway, Iceland, Sweden, Poland, the Czech Republic and Ireland are partners of the EPOS Consortium. The Slovak Republic, Finland, Austria, Slovenia and Israel are associated with this initiative. http://www.epos-eu.org/

Ends

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Notes for Editors

The British Geological Survey

The British Geological Survey (BGS), a component body of the Natural Environment Research Council (NERC), is the nation's principal supplier of objective, impartial and up-to-date geological expertise and information for decision making for governmental, commercial and individual users. The BGS maintains and develops the nation's understanding of its geology to improve policy making, enhance national wealth and reduce risk. It also collaborates with the national and international scientific community in carrying out research in strategic areas, including energy and natural resources, our vulnerability to environmental change and hazards, and our general knowledge of the Earth system. More about the BGS can be found at www.bgs.ac.uk.