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A European Network of Analytical and Experimental Laboratories for Geosciences: Challenges and Perspectives

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The EU policy for scientific research in the third millennium is that of a coordinated approach to support and develop continent-scale research infrastructures. The vision is to integrate the existing research infrastructures in order to increase the accessibility and usability of multidisciplinary data, enhancing worldwide interoperability by establishing a leading integrated European infrastructure and services.
Integrating Earth Sciences infrastructures in Europe is the mission of the European Plate Observing System (EPOS), a research infrastructure and e-science for data and observatories on earthquakes, volcanoes, surface dynamics and tectonics. Within the existing core elements to be integrated in the EPOS cyber-infrastructure are: geographical distributed observational infrastructures (seismic and geodetic networks), observatories for multidisciplinary local data acquisition (e.g., volcanoes, active fault-zone, geothermal and deep drilling experiments), and analytical facilities for data repositories and integration. The integration of European analytical, experimental, and analogue laboratories plays a key role in this context and is the task of EPOS Working Group 6 (WG6).
The Analytical and Experimental LaboratoriesGroup thus aims to link experimental, analytical, and analogue laboratories into a single, but geographically distributed, infrastructure for rock physics, including palaeomagnetism, analytical and experimental petrology and volcanology, and tectonic modeling.The WG6 has set a short term goal that has now been achieved, being a review of operational laboratory facilities in the community and the creation of a database from that information. Currently 12 countries (Germany, Greece, Ireland, Italy, Portugal, Romania, Slovenia, Spain, Sweden, Switzerland, The Netherlands, United Kingdom) are included in the database. As long-term goals, the WG6 aims to create mechanisms and procedures for easy access to laboratory facilities, turning small-scale infrastructures into a coherent, effective, and collaborative structure for European scientists. This will help increase coherence and efficiency of the European Experimental and Analytical Community and prepare us for the global challenges of the third millennium.