



The EPOS integration plan for Research Infrastructures in solid Earth Science: working strategy and preliminary achievements

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The European Plate Observing System (EPOS) is a long-term integration plan for research infrastructures in solid Earth Science, which belongs to the ESFRI roadmap since December 2008.

EPOS is planned as the major distributed research infrastructure in Europe over the next decades.

The EPOS plan aims at integrating the currently scattered, but highly advanced European facilities into one, distributed, but coherent multidisciplinary Research Infrastructure allowing sustainable long-term Earth science research strategies and an effective coordinated European-scale monitoring facility for solid Earth dynamics taking full advantage of new e-science opportunities.

The EPOS preparatory phase (EPOS PP), funded by the European Commission within the Capacities program, started on November 1st 2010 and it is now finally under way.

EPOS PP aims to promote innovative approaches for a better understanding of the physical processes controlling earthquakes, volcanic eruptions, unrest episodes and tsunamis as well as those driving tectonics and Earth surface dynamics. To these tasks, EPOS is going to integrate data from permanent national and regional geophysical monitoring networks (seismological, GPS), with the observations from "in-situ" observatories (volcano observatories, in-situ fault zone test sites) and laboratory experiments through a cyber-infrastructure for data mining and processing, and facilities for data integration, archiving and exchange.

The vision is to integrate these existing research infrastructures in order to increase the accessibility and usability of multidisciplinary data from monitoring networks, laboratory experiments and computational simulations enhancing worldwide interoperability in Earth Science by establishing a leading integrated European infrastructure and services. This is the EPOS observing strategy.

We will present the EPOS PP short-term roadmap and the associated working plan as discussed during the kickoff meeting held in Rome on November 24th and 25th 2010.

We will present the key actions needed to: (i) establish the legal and governance framework for the infrastructure serving scientists and other stakeholders in Europe and outside Europe for long-term solid Earth observations; (ii) develop an innovative integrated e-infrastructure component necessary to create an effective service to users; (iii) promote the strategic and outreach actions to meet the specific user needs. We are going to emphasize the EPOS enhanced integrated contribution to the solid Earth scientific community and the society.