



EPOS the European Plate Observing System: a long-term integration plan for research infrastructures on solid Earth sciences at pan-European level

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EPOS (European Plate Observing System) aims 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, etc....) and temporary-monitoring and laboratory experiments through a cyber-infrastructure for data mining and processing, and facilities for data integration, archiving and exchange. By providing an unprecedented high-quality multidisciplinary service to users, EPOS will foster and support research on earthquakes, volcanoes, surface dynamics and tectonics, and will complement similar initiatives in satellite Earth observing systems and ocean sciences. EPOS main aim is to create a coherent Research Infrastructure enabling the next generation of scientists to pursue innovative and challenging solid Earth science research in Europe and in the Mediterranean regions.

EPOS has been included in the European roadmap for research infrastructures after positive evaluation by ESFRI (European Strategy Forum on Research Infrastructures) in December 2008. A preparatory phase proposal has been recently submitted to the last EC Call in the Capacities Work Program. Here we present the EPOS concept and the strategic plans for its preparatory phase, focusing on the implementation plan and vision to create an effective service to users.

Making observations of solid Earth dynamic processes controlling natural phenomena immediately available and promoting their comparison with experimental observations from cutting-edge laboratory experiments and their interpretation through theoretical analyses and numerical simulations will represent a multidisciplinary platform for discoveries which will foster scientific excellence in solid Earth research.