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EPOS ICS Data Portal

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The European Plate Observing System (EPOS) addresses the problem of homogeneous access to heterogeneous digital assets in geoscience of the European tectonic plate. Such access opens new research opportunities. Previous attempts have been limited in scope and required much human intervention. EPOS adopts an advanced Information and Communication Technologies (ICT) architecture driven by a catalog of rich metadata. The architecture together with challenges and solutions adopted are presented. The EPOS ICS Data Portal is introducing a new way for cross-disciplinary research. The multidisciplinary research is raising new possibilities for both students and teachers. The EPOS portal can be used either to explore the available datasets or to facilitate the research itself. It can be very instructive in teaching as well, for example by demonstrating scientific use cases.

EPOS is a European project about building a pan-European infrastructure for accessing solid Earth science data. The finished EPOS-IP project includes 47 partners plus 6 associate partners from 25 countries from all over Europe and several international organizations. However, the community contributing to the EPOS integration plan is larger than the official partnership of EPOS-IP project, because more countries are represented by the international organizations and because there are several research institutions involved within each country.

The recently developed EPOS ICS Data Portal provides access to data and data products from ten different geoscientific areas: Seismology, Near Fault Observatories, GNSS Data and Products, Volcano Observations, Satellite Data, Geomagnetic Observations, Anthropogenic Hazards, Geological Information and Modelling, Multi-scale laboratories and Geo-Energy Test Beds for Low Carbon Energy.

The presentation focusses on the EPOS ICS Data Portal, which is providing information about available datasets from TCS and access to them. We are demonstrating not only features of the graphical user interface but also the underlying architecture of the whole system.