Multi-disciplinary data contribution to EPOS e-infrastructure

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The European Plate Observation System (EPOS, https://www.epos-ip.org/) is an e-infrastructure aimed at facilitating and promoting the integrated use of data, data products, services and facilities from internationally distributed research infrastructures for Solid Earth Science in Europe. This e-infrastructure is greatly committed to tackle viable solutions for Solid Earth challenges. It is a long-term plan that integrates research infrastructures of different EU countries into a single inter-operable platform. Data, data products, software and services are facilitated through a variety of different thematic core services (e.g., Seismology, Satellite data, Volcano Observations, Multi-Scale Laboratories, etc.). The Spanish EPOS node, coordinated by CSIC, provides data, data products, software and services to EPOS with the help of the repository DIGITAL.CSIC. In particular, geochemical data, satellite observations, control source seismic data as well as access to other data services. The CSIC has adopted the open data mandate and supports that data archives follow the FAIR principles of data management: Findable, Accessible, Interoperable and Reusable. Data are broadly accessible to reuse for other researchers, industry, teaching, training and for the general public.
Following these principles, the Institute of Earth Sciences Jaume Almera is updating and enlarging its database (https://digital.csic.es/handle/10261/101879). The repository includes geophysical data acquired in the Iberian Peninsula since the 90's, both on and offshore. This dataset comprises deep seismic studies of the structure of the crust and uppermost mantle in different geological settings, obtained through projects funded by public calls as well as data resulting from industry funded research projects. This dataset contains, for example, data addressing the characterization of the shallow subsurface for the development of CO_2 and radioactive waste geologic storage sites, and data to assess geologic hazards in the neighborhood of faults. The latter aimed to characterize the seismogenic behavior of active faults in strike-slip tectonic contexts. The repository provides access to data that are relevant to assess sustainable and secure exploration and exploitation of the subsurface, a key societal challenge.
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