



## Implementing EPOS Seismology: Status and Challenges

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Two years into the EPOS-IP project, implementing the framework for a European Research Infrastructure Consortium (ERIC) for Solid Earth sciences, significant progress has been made towards the build-up of the Thematic Core Service (TCS) for Seismology of EPOS.

Services providing access to data, products, and tools have been implemented or updated in the three pillars 'Waveform Services', based on ORFEUS, (e.g. the next generation European integrated data archive EIDA for seismic waveforms, the rapid real-time and reviewed services for strong motion parametric data, and the 3D waveform modeling services), 'Seismological Products', building on EMSC and AHEAD, (e.g. new or improved web services and interactive websites for different earthquake information products), and 'Earthquake Hazard and Risk Services', organized around EFEHR (e.g. an improved interface and service for seismogenic fault information and an updated earthquake hazard portal). The development roadmaps for further services in all three pillars have been consolidated, also in connection with new large European infrastructure projects like SERA.

The initial governance model for EPOS Seismology has been agreed, and will rely on representation of the three pillars ORFEUS, EMSC, EFEHR as well as community and user representatives. EFEHR, the European Facilities for Earthquake Hazard and Risk, is being implemented as a consortium with its own dedicated governance structure, complementing the already existing governance structures of ORFEUS and EMSC, and thus enabling an adequate representation of the three pillar communities in EPOS Seismology.

The EPOS Seismology services as well as the governance arrangements are now undergoing internal and external validation before being officially incorporated into the EPOS portfolio of services, once EPOS gains official status as an ERIC.

Current work, closely coordinated with the other EPOS TCS, the Integrated Core Service (ICS), and the EPOS-IP legal, financial, and communication work packages, addresses further challenges particularly in the following areas:

- implementing and harmonizing data policies, licenses, and supplier agreements;
- utilization and management of (persistent) identifiers;
- enabling and improving interoperability through metadata and defined vocabularies;
- training and user interaction.

In this presentation, we summarize the status of existing services and how they can be accessed and used, present the roadmap of service development for the next two years, and discuss our efforts and initiatives to tackle the challenges regarding policies, identifiers, interoperability and user interaction.