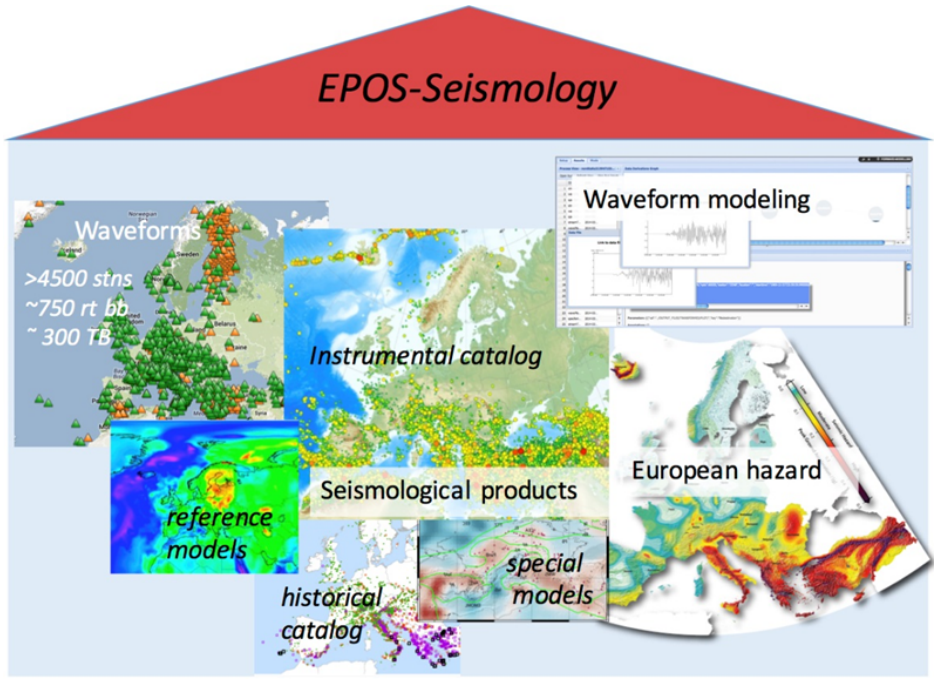
# OVERVIEW | OBJECTIVES




*EPOS Seismology services cover all fields of seismological research.*

Organizing and ensuring **easy, efficient and comprehensive access** across the European Research Infrastructures in the field of seismology, to optimally serve user needs, take advantage of state-of-the-art ICT solutions, provide cross-domain interoperability, and remain organizationally and financially sustainable in the long term, is the core challenge and main objective of *EPOS Seismology*.

Building upon the existing European-level infrastructures ORFEUS for seismological waveforms, EMSC for seismological products, and EFEHR for seismological hazard and risk information, and implementing a pilot Computational Earth Science service for 3D waveform modeling, *EPOS Seismology* will further develop and maintain a well coordinated service framework that is technically, organizationally, and financially integrated with the EPOS architecture.

The European level services provided by *EPOS Seismology* will be community governed, utilizing established or newly developed governance structures, where all contributing national institutions are represented. Services are hosted either at the European level seismological infrastructures or at designated institutions that take on these tasks for the community.

*EPOS Seismology* in particular respects the roles, rights and responsibilities of the underlying national research infrastructures that are the data owners and main providers of data and products, and seeks active input and feedback from the (scientific) user community and other stakeholders.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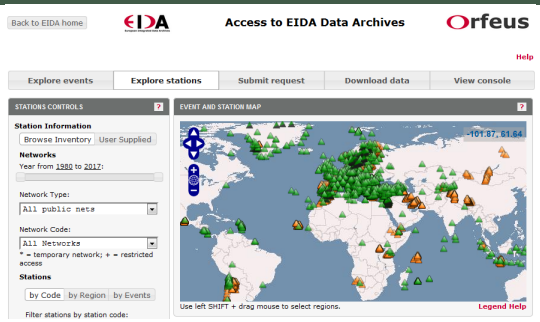
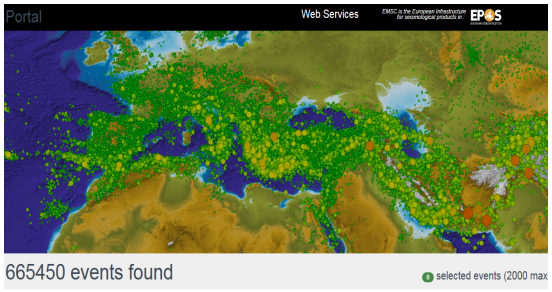
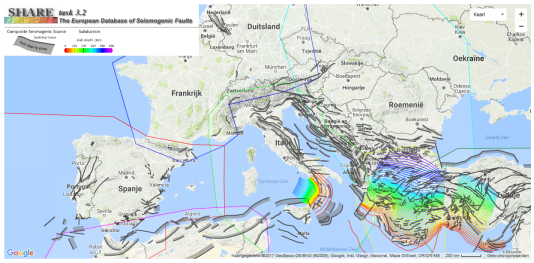
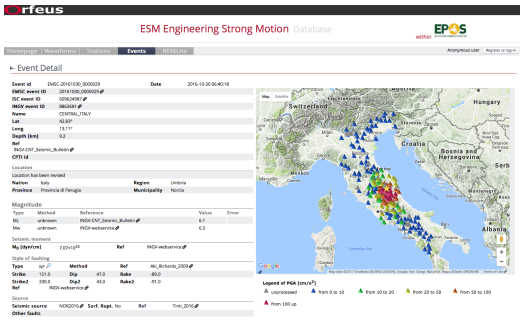
# EPOS SEISMOLOGY

## SERVICES




*Examples of EPOS Seismology. Top left: EIDA waveform access; top right: parametric earthquake information (EMSC); bottom left: seismogenic faults (EDSF); bottom right: strong motion data portal (ESM).*

**EPOS Seismology services available today:**

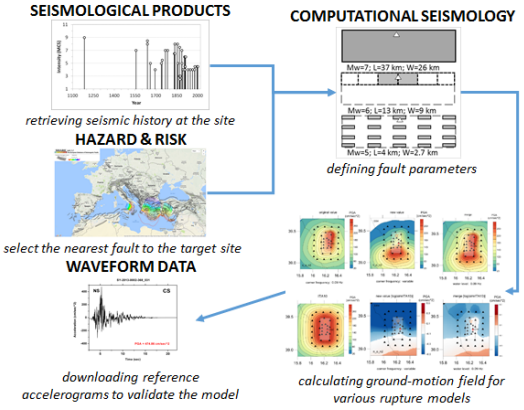
Waveform services: EIDA archive access; RRSM & ESM strong motion data access; ORFEUS StationBook; 3D waveform modeling.

Seismological product services: EMSC earthquake information; AHEAD historical earthquake data; moment tensors.

Seismic Hazard and Risk services: EFEHR hazard model access; EDSF database of seismogenic faults.

*Further services in development, more information:* http://www.epos-ip.org/tcs/seismology

## USE CASE




This use case targets the calculation (Computational Seismology service) of the ground-motion field for various rup- ture models (Seismic Hazard and Risk service) at a site that is characterised by historical earthquakes (Seismological Product service) and validation using reference accelerograms and seismograms and related metadata (Waveform service).

## CONTACT

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