



European distributed seismological data archives infrastructure: EIDA

John Clinton (1), Winfried Hanka (2), Salvatore Mazza (3), Helle Pederson (4), Reinoud Sleeman (5), Klaus Stammler (6), and Angelo Strollo (2)

(1) ETHZ, Swiss Seismological Service, Zurich, Switzerland (jclinton@sed.ethz.ch), (2) GFZ, Potsdam, Germany, (3) INGV, Rome, Italy, (4) ISTERRE, Grenoble, France, (5) KNMI, Seismology, De Bilt, Netherlands, (6) BGR, Hannover, Germany

The European Integrated waveform Data Archive (EIDA) is a distributed Data Center system within ORFEUS that (a) securely archives seismic waveform data and related metadata gathered by European research infrastructures, and (b) provides transparent access to the archives for the geosciences research communities. EIDA was founded in 2013 by ORFEUS Data Center, GFZ, RESIF, ETH, INGV and BGR to ensure sustainability of a distributed archive system and the implementation of standards (e.g. FDSN StationXML, FDSN webservice) and coordinate new developments. Under the mandate of the ORFEUS Board of Directors and Executive Committee the founding group is responsible for steering and maintaining the technical developments and organization of the European distributed seismic waveform data archive and the integration within broader multidisciplinary frameworks like EPOS.

EIDA currently offers uniform data access to unrestricted data from 8 European archives (www.orfeus-eu.org/eida), linked by the Arlink protocol, hosting data from 75 permanent networks (1800+ stations) and 33 temporary networks (1200+ stations). Moreover, each archive may also provide unique, restricted datasets. A webinterface, developed at GFZ, offers interactive access to different catalogues (EMSC, GFZ, USGS) and EIDA waveform data. Clients and toolboxes like `arlink_fetch` and `ObsPy` can connect directly to any EIDA node to collect data. Current developments are directed to the implementation of quality parameters and strong motion parameters.