EPOS-S: Integrated access to seismological waveforms

Reinoud Sleeman (1), Angelo Strollo (2), Alberto Michelini (3), John Clinton (4), Philippe Gueguen (5), Lucia Luzi (3), Ali Pinar (6), Jordi Diaz (7), Ulubey Ceken (8), Christos Evangelidis (9), and Florian Haslinger (4)

(1) KNMI, Netherlands (sleeman@knmi.nl), (2) GFZ, Germany, Potsdam (astrollo@gfz-potsdam.de), (3) INGV, Italy (alberto.michelini@ingv.it), (4) ETH, Switzerland (jclinton@sed.ethz.ch), (5) CNRS, France (philippe.gueguen@ujf-grenoble.fr), (6) KOERI, Turkey (pinara@boun.edu.tr), (7) CSIS, Spain (jdiaz@ictja.csic.es), (8) AFAD, Turkey (ulubey.ceken@afad.gov.tr), (9) NOA, Greece (cevan@noa.gr)

The main challenges of the EPOS TCS Seismology are to improve and to extend existing services to access earthquake waveforms (ORFEUS), parameters (EMSC) and hazard data and products (EFEHR), and producing a single framework that is technically integrated within the EPOS architecture. Technical developments in the services for seismological waveforms and associated data, including the compilation of station metadata and installing common data archival and sharing policies are within ORFEUS and its Working Groups. The focus is on 1) the development of the next generation software architecture for the European Integrated (seismological) Data Archive EIDA based on standardized webservice, the implementation of a data quality service and the realisation of a mediator service; 2) the development of EIDA-compliant services for strong motion data and acceleration data and the extension of the station metadata model; 3) the integration of data from mobile networks and OBS waveforms into EIDA by implementing mechanisms for coordination of transnational access and multinational experiments at available pools of OBS and mobile seismic stations; 4) achieve close integration with other EPOS TCS and the ICS with regard to interoperability and common use of tools & services, common and coordinated data models and metadata formats, and common computational platforms and IT solution implementations. This presentation will present the status of and current developments towards the above objectives.