35th General Assembly of the
European Seismological Commission

4-10 September 2016 — Trieste

ASMI, the Italian node of the European Archive of Historical Earthquake Data (AHEAD)

Mario Locati and Andrea Rovida

Istituto Nazionale di Geofisica e Vulcanologia, Milano, Italy

AHEAD, the European Archive of Historical Earthquake Data (Locati et al., 2014), is a well-established Web portal providing data on the long-term seismic history of the Euro-Mediterranean region.

Long before the release of AHEAD, a similar data archive for the Italian territory was established for the compilation of multiple releases of the Italian parametric earthquake catalogue (CPTI), and the related macroseismic intensity database (DBMI). If CPTI and DBMI are updated on a multiannual base, the underlying archive is continuously updated with newly released data from parametric catalogues, sets of macroseismic datapoints, and seismological studies. The archive was never made public, and therefore confined to an internal use only.

As AHEAD, ASMI allows the user to compare all available (published) studies and their (possibly) different interpretation. Such a comparison is of fundamental importance for the selection of the input data for the compilation of a reliable seismic catalogue. The recent release of CPTI15 and DBMI15, the latest versions of the Italian catalogue and database, benefitted from a massive update and of the content of ASMI with data and studies recently published (up to 2015) regarding a large number of Italian earthquakes. The archive contains today more than 20'000 records on about 6'000 earthquakes in the time period 1000-2014, derived from more than 400 studies.

Given such a major effort in updating the archive content, the working group decided that it was worth to finalize the archive structure and prepare a Web user interface for making such a wealth of data accessible and usable by everybody.

ASMI has an additional level of complexity with respect to AHEAD, due to the longer time-window covering the entire XX century, and more detailed information on localities related to MDPs. These factors lead to additional data-types, relations, and requirements, that had to be implemented in the infrastructure, together with additional functionalities in the user interface for interacting with such new features.

ASMI will represent the Italian node of AHEAD, and consequently the content related to the Italian peninsula will be the same in the shared time-window 1000-1899, while the period 1900-2014 will only be accessible via the ASMI Web portal.