



European Facilities for Earthquake Hazard and Risk – EFEHR: status, activities and further updates of the 2020 European Seismic Hazard Model (ESHM20)

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Knowledge of seismic hazard provides key input to evaluate and further mitigate the seismic risk in earthquake prone regions. In Europe, the newly established European Facilities for Earthquake Hazard and Risk (EFEHR) aims at integrating the community resource for seismic hazard and risk at the regional and national scale. Today, EFEHR provides access to specific seismic hazard data, models, results, and information, mainly throughout a newly designed web-platform (www.efehr.org, available online since 2013). To ensure an adequate and appropriate link of these services to the national seismic hazard and risk communities, and to provide oversight and coordination, a governance structure for EFEHR is in the process to be established, with participation from and representation of the relevant national and institutional stakeholders. Thus, we report on the current status and progress on the efforts to establish the governance of EFEHR within the framework of European Plate Observing System (EPOS).

Further, on the scientific activities of EFEHR, notably is the update of the 2013 European Seismic Hazard Model (ESHM13) already ongoing within the joint research activities (JRA2) in SERA Project. In the next two years the updates include compilation of national hazard models, update of the instrumental and historical catalogue, revisit and reconcile seismogenic sources with national models, reassess the earthquake activity rates, incorporation of crustal deformation models, derive new ground motion models and capture the inherent modeling uncertainties.

In this contribution, we also present the roadmap to update the ESHM13 with focus on key elements of the hazard model, i.e. seismogenic source models and their challenges. We summaries the up-to-date datasets and finally, we conclude with an overview of the next steps and milestones of the 2020 European Seismic Hazard Model (ESHM2020).