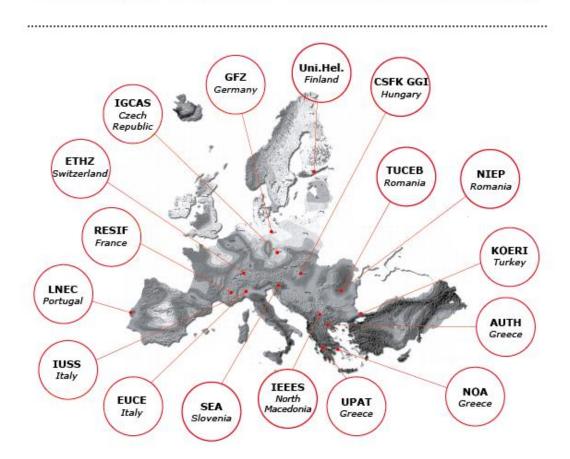






Building the European Earthquake Hazard and Risk Community



The building of the European seismic hazard and risk community has been a process that has slowly gained momentum over the past 30 years. Back in the 1990s, the community first came together to develop the European seismic hazard map for GSHAP 1999, which then led to SESAME 2003, ESHM13, and the current efforts being undertaken towards ESHM20 and the first European seismic risk model (ESRM20), all under the coordination of Prof. Domenico Giardini (ETHZ). We have had strong community representation in the European Commission's FP6, FP7 and Horizon 2020 funding programmes through many projects, including NERIES, SERIES, NERA, SERA, SAFER, SHARE, STREST, SYNER-G, REAKT, MATRIX, RISE, DESTRESS, and TURNKEY. A landmark was reached in 2018 when the European Plate Observing System (EPOS) ERIC (European Research Infrastructure Consortium) was established; this infrastructure provides the framework upon which future European research and development in seismic hazard and risk can be built.

EFEHR originally started as a platform developed as part of the NERA project, hosted at ETH Zurich, delivering hazard outputs from the ESHM13 model. In October 2019, following the signature of the Consortium Agreement by 11 founding members, the non-profit European Facilities for Earthquake Hazard and Risk (EFEHR) Consortium was established. Thus, EFEHR became one of the pillars EPOS three key of Seismology, the two others ORFEUS (Observatories & Research Facilities for beina European Seismology) and EMSC (European-Mediterranean Seismological Centre).



"Earthquake Risks are issues of European relevance and dimension, and it can be only assessed and reduced by a wide community effort,"

Domenico Giardini, full Professor of Seismology and Geodynamics at the ETH Zurich, Switzerland

Save the date!



10 September 2020

2020 European Seismic Hazard and Risk Models:

Current Status and Next Steps towards the Final Release

Webinar: 9:00 - 12:00

Register now - Limited spaces available!

EFEHR General AssemblyOnline meeting: 14:00 - 18:00

Our vision



The EFEHR Consortium aims to:

Promote **good practice** and **knowledge exchange** within the research community.

Integrate with the engineering community to ensure a seamless transition from hazard to risk and provide state-of-the-art hazard data for seismic design of structures, which are also in line with the requirements from the next generation of the European Standard for earthquake-resistant design (CEN Eurocode 8).

Support national and local hazard and risk assessment by providing access to software and expertise required for contemporary hazard and risk assessment.

Provide **open access** to state-of-the-art, **transparent and reproducible** data, models, tools and information on earthquake hazard and risk, **harmonised across Europe**.

Maintain, update and quality control relevant **European databases** for seismic hazard and risk assessment (e.g., active faults, earthquake catalogues, ground shaking models, site amplification, exposure data, fragility and vulnerability functions for building typologies (residential, commercial and industrial) and lifelines/infrastructures).

Conduct **periodic reviews** and **updates** of the community-built reference European seismic hazard and risk models (ESHM and ESRM).

Connect and integrate **European initiatives** to other international or global hazard and risk communities (e.g. <u>Global Earthquake Model</u>).

EFEHR Consortium is a non-profit network of organisations and community resources aimed at advancing earthquake hazard and risk assessment in the European-Mediterranean area. EFEHR does not aim to replace national or local efforts, but rather support and enrich them.

Who's behind EFEHR?

In October 2019, 11 institutions signed the EFEHR Consortium Agreement and became founding members of the EFEHR Consortium. At least 6 new members are expected to officially join at the next General Assembly meeting in September 2020. The Consortium also benefits from the involvement of a number of organisations that play an observer role in the General Assembly: these currently include <u>EAEE</u>, <u>EMSC</u>, <u>ORFEUS</u>, <u>GEM</u> and <u>ESC</u>.

In addition to the <u>members of the EFEHR Consortium</u>, the governance of EFEHR also relies on a Consortium Chair, a Consortium Secretary, and an Executive Committee that meet every two months to discuss and plan the activities of EFEHR, including community outreach review meetings and the development of white papers on the latest issues in hazard and risk assessment. The group is currently preparing a first white paper on the EFEHR data policy so keep an eye out for updates on this in upcoming newsletters.

EFEHR Consortium Governance



Consortium Chair Fabrice Cotton (GFZ Potsdam, Germany)



Consortium Secretary Laurentiu Danciu (ETH Zurich, Switzerland)

Executive Committee



Helen Crowley - Risk (EUCENTRE, Italy)



António A. Correia - Risk (LNEC, Portugal)



Olga-Joan Ktenidou - Hazard (National Observatory of Athens, Greece)



Céline Beauval - Hazard (ISTERRE/RESIF, France)



Päivi Mäntyniemi - Hazard (University of Helsinki, Finland)

Thank you for your support!

We kindly thank all the colleagues who supported and contributed to the establishment of the consortium, including those that participated in the inaugural EFEHR session at Lenzburg, September 2017 and the Consortium Assembly kick-off meeting in Zurich (Switzerland), October 2019; particular mention is due to Domenico Giardini, Florian Haslinger and Stefan Wiemer for working hard behind the scenes to establish the EFEHR Consortium.





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