

# THE RISK FINANCING CHALLENGE

PUBLIC GOOD.  
CREDIBLE.  
COLLABORATIVE.  
OPEN & TRANSPARENT.



## GEM FOUNDATION

a world resilient to earthquakes

### Contact us

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3000 OpenQuake users  
since 2015 from over  
100 countries

## WHY PARTNER WITH GEM

Information from catastrophe risk models is essential for a wide range of risk financing requirements, including pricing insurance premiums, developing catastrophe bonds, and meeting solvency requirements; but the development and/or licensing of such models can be expensive and oftentimes impractical for many companies. Increased rigor, accuracy, transparency and accessibility of risk models results in greater trust in the model development process and in better understanding of the risk. Having direct access to all of the information in the models and to the model developers also leads to more efficient use of resources and more complete transfer of risk information.



## WHAT WE OFFER

GEM offers software tools, datasets and technical services to help risk analysts and managers to understand their risks. Our software, associated tools and datasets are all publicly available via our websites:

**[www.globalquakemodel.org](http://www.globalquakemodel.org) &  
[platform.openquake.org](http://platform.openquake.org)**

GEM is the developer of the OpenQuake-engine (OQ): a state-of-the-art software for earthquake hazard and risk modeling. It has been extensively tested since its launch in 2015.

Now, more than 100 public and private institutions and around 500 individual scientists and risk analysts around the world are using the OpenQuake-engine.

In addition, several thousand people are accessing data, models and model-building tools on the OQ Platform at:

<https://platform.openquake.org>.



## BENEFITS OF PARTNERING WITH GEM

Take the lead in further developing the following:

- The OpenQuake engine
- Hazard datasets (Active Faults Database, Regional and National Earthquake Catalogues, Strong Motion Database)
- Seismic Hazard Models
- Global to Local Vulnerability Functions
- Global to Local Exposure Models
- Global Coverage of Risk Models and Metrics at the National Scale

Have full access to our capacity development activities and technical support:

- Reserved place in training workshops on seismic hazard and risk modeling and other events
- Full scientific and IT support

“

*Our partnership with GEM expanded in-house expertise on earthquake risk and strengthened our overall internal and external risk management processes. We hope to continue this productive collaboration in the years to come.*

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**Joerg Steffensen**  
Hannover Re

## JOIN US!

Support high quality data and tools sharing on free, open and transparent platform. Private sponsors may join GEM in 2018 for three years at substantially reduced fees.

Sponsor Type	Minimum Contribution (k EUR)	Voting Rights	Attend GB Meetings & Events
Returning Governor	60-80*	Yes	Yes
New Governor	100	Yes	Yes
Advisor	50	No	Yes
Patron	30	No	No

\*80K EUR for those returning from either 2009-2013 program or 2013-2018 program; 60K if returning from both programs.



## SERVICES

- Development of customized seismic hazard and risk models; and development of tools for integration with other in-house tools
- Assistance to understand existing hazard and risk models
- Production of tailor-made sets of stochastic events and/or ground motion fields
- Access to GEM Certified models, including through industry platforms (under development)
- Provision of full scientific and technical support



## OUR TRACK RECORD

- Strong relationships with risk managers, model developers, insurers and reinsurers since 2009
- Successful industry partnerships on hazard and risk modeling using OpenQuake e.g. Hannover Re, FM Global, Willis, Aon Benfield
- Open approach in tools development and model verification including open access to hazard, exposure and vulnerability datasets
- Successful deployment and testing of GEM models on industry platforms: OASIS, ELEMENTS and Touchstone