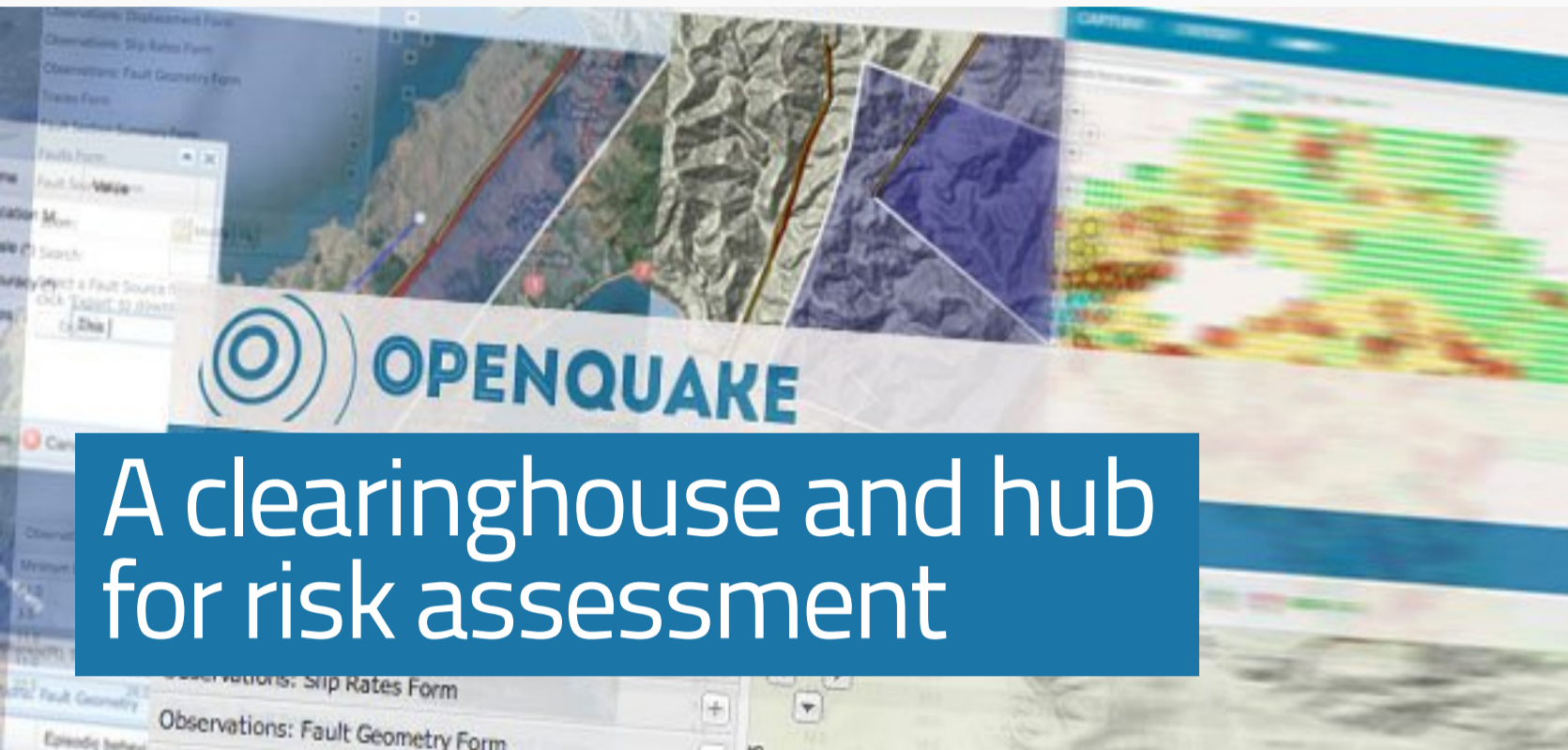




OPENQUAKE

Home > About > Platform



A clearinghouse and hub for risk assessment

IN BRIEF

We envisage the OpenQuake Platform to serve as a hub for earthquake risk assessment in all areas of the world, used from global to local levels, with users supporting each other in analysis and planning and hereby increasingly contribute to making society more resilient to earthquakes.

▶ START HERE

The OpenQuake Platform has been launched on January, 21st 2015. It allows users to visualize, explore and share GEM's datasets, tools and models.

Create your account here: <https://platform.openquake.org/account/signup/> and take your own tour to the platform.

FEATURED ★

HOW WE LEVERAGE OGS TECHNOLOGIES

During Understanding Risk 2012, Ben Wyss presented his work on building the OpenQuake platform and tools such as the active fault capture tool, leveraging tools and technologies the Geonode and QGIS. In November 2012 the GEM Secretariat hosted a GFDRR code-sprint on OGS technologies.



THE OPENQUAKE PLATFORM

Welcome to the OpenQuake Platform, by the GEM Foundation. This web-based platform offers an interactive environment in which users can access, manipulate, share and add data, and explore models and tools for integrated assessment of earthquake risk.

- Maps
- Layers
- Documents

LATEST MAPS

Geodetic Strain Rate Model
Map from GEM, 1 month, 3 weeks ago
The model is based on the largest self-consistent set of secular velocities. It is the best estimate of present-day plate motions and strain accumulation, being potentially released through earthquake events. The model is a significant improvement over the v.1.2 that was produced in 2004. The model includes estimates of uncertainty; while GPS velocity uncertainties are typically 0.1-0.3 mm/yr, the strain rate uncertainty at any point is largely dependent on the GPS station density.

0 Average rating (0 votes)
views [Download](#) [View](#)

Global Active Faults
Map from GEM, 2 months, 2 weeks ago
The knowledge of fault positions and current activity is of vital knowledge for the calculation of seismic hazard. The current state of the art only consists of a number of national and



(Privacy Policy - Terms of Use)

READ ABOUT GEM

► FROM GLOBAL TO LOCAL

We envisage the platform serve as a hub for integrated risk assessment, allowing both power and standard users to combine **GEM products** in many different ways in order to obtain output for science, risk assessment, risk awareness creation and risk management. By building on the latest opensource technologies also leveraged by the **World Bank's GFDRR Innovation Lab** with whom we collaborate on this, the platform will make for an interactive, dynamic and collaborative environment for GEM products.

Initially these products will be 'global' and provide a rough overview; but through partnerships and collaboration, more and more results and resources will be applicable for local risk assessment after 2014.



► CALCULATE, SHARE, EXPLORE

CALCULATE: The OpenQuake platform allows users to combine and use open-source applications with homogenized data and models. With the OpenQuake Engine - GEM's state-of-the-art software for seismic hazard and risk assessment - users can calculate seismic hazard and risk transparently and according to the latest science, from the global to the local scale. From ground motion fields to hazard spectra to maps of estimated human loss and mean economic loss; users will be able to produce a great variety of custom outputs by combining own models, data and (local) knowledge with the different **GEM products**.

EXPLORE: The platform leverages upon open-source geospatial technologies to allow users to work in an intuitive, map-based environment. Users can explore earthquake hazard and risk by interacting with dynamic maps, indicators and graphs. They can also develop their own maps by combining datasets, and they can upload new data for continuous improvement of datasets for (local) risk assessments.

SHARE: Sharing of data and risk information, best practice and approaches is key to assessing risk better. The platform is to serve as a clearinghouse for all those critical in- and outputs. It will link users from around the globe so they can work together to assess risk.

Search >



[About](#)
[Jobs](#)
[News](#)

[Sitemap](#)
[GEM Nexus](#)
[Stay in touch](#)

[Publications](#)
[Community](#)
[Contact](#)

[OpenQuake Platform](#)
[OpenQuake Engine](#)
[Follow OpenQuake](#)

[Test the Engine](#)
[Download](#)
[Documentation](#)

© GEM some rights reserved | [Terms of use](#) | [Privacy](#)
GEM Foundation | Via Ferrata 1, 27100 Pavia, Italy | +39 0382 5169865 | info@globalquakemodel.org
Tax code: 96059180180 | VAT number: IT02585230184 | PEC: gemfoundation@pec.it