OPEN TOOLS.
OPEN DATA.
STATE-OF-THE-ART.

THE ENGINEERING CHALLENGE

Numerical modelling has been used in engineering for decades to better understand structural design impacts to affordability, retrofitting costs and safety when it comes to mitigating the effects of earthquakes. Models have also been used for communicating best practices to inform policy making and improvement of building codes. However, creating an in-house modeling tool is a long and expensive process, especially for earthquake risk assessment.

GEM
GLOBAL EARTHQUAKE MODEL FOUNDATION
a world resilient to earthquakes

CONTACT US

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" "

GEM will provide communities with a great opportunity to strengthen their capacity to respond to disasters, invest in disaster reduction and therefore make themselves stronger and more resilient.

Public Sponsor

(Reserved space for partner quote)

OUR SOLUTIONS

GEM has developed state-of-the-art software for earthquake hazard and risk assessment called the OpenQuake engine (OQ) to help engineers plan and build better.

It is the only modeling tool that combines hazard and risk in a single software.

The OQ engine and its associated tools and selected datasets can be publicly accessed via our websites: platform.openquake.org & www.globalquakemodel.org

OUR TRACK RECORD

Well known companies have partnered with GEM to win international and interdisciplinary projects such as our projects in:

- Kyrgysztan with **ARUP**/**GFZ;**
- Afganistan with **ARUP;** and
- Armenia with **AIR Worldwide.**

BENEFITS

What partnering with GEM means for your company1

- Gain capacity building experience in developing countries, training modules
- Access to global databases, open software and tools
- Global standards for data, models and tools
- Be part of a network of international experts in hazard, risk and financial modelling
- GEM endorsement including official logo or seal

JOIN US

Support high quality data and tools sharing on free, open and transparent platform

SERVICES

- Development of customized components in the OQ engine
- Hazard and risk calculation verification
- Use or construction of customized computing resources
- Seismic hazard analysis for design purposes
- Structural modelling and vulnerability assessment
- Infrastructure risk assessment
- Open Risk assessment tools (OQ and modeller's toolkit); data (global hazard, exposure, vulnerability)
- Benefit-cost analysis for seismic retrofitting
- Urban resilience modelling