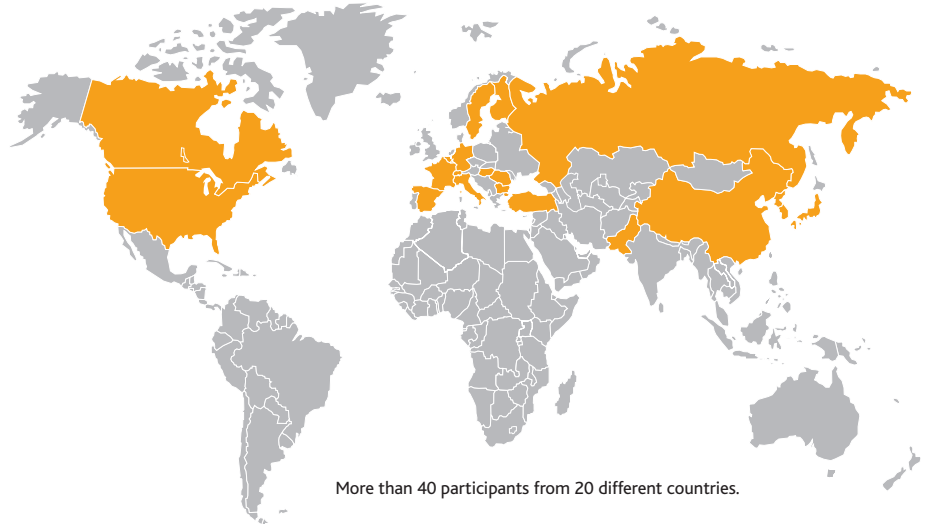


SMART 2008

Seismic design and best-estimate Methods Assessment for Reinforced concrete buildings subjected to Torsion and non-linear effects.



More than 40 participants from 20 different countries.

The SMART project consists in three main phases:

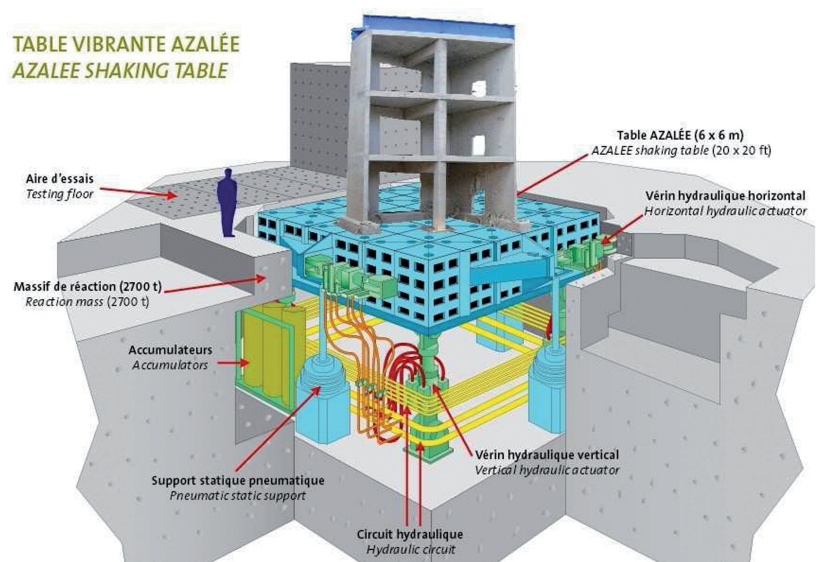
1) Blind prediction benchmark (2007-2008):

Objectives :

- Assess different conventional design methods of structural dynamic analyses, including floor response spectra evaluation,
- Compare best-estimate methods for structural dynamic response and floor response spectra evaluation.

2) Experimental tests on Azalée shaking table (2008):

- 1/4th scale model of a 3 storey reinforced concrete building (representative of a nuclear building) with torsional effect, tested on AZALEE shaking table at CEA,
- 13 horizontal bi-directional accelerograms sets inputted to the structure.



3) 2nd phase benchmark (2009-2010):

Objective :

compare tests results at various levels of seismic excitations (including « under-design » and high « over-design » levels), in order to:

- quantify variability in the seismic response of the structure and identify contribution coming from uncertainties in input parameters and random variables,
- investigate and compare different methods for fragility curves elaboration.