# Memorandum of Understanding (MoU)

# for a "Multilateral Agreement for Seismic Motion Observations on the Cephalonia and Dissemination of Results"

#### Partners:

- Technological and Educational Institution of Ionian Islands (TEI)
- Earthquake Planning and Protection Organisation Institute of Engineering Seismology
   & Earthquake Engineering (EPPO ITSAK)
- Univ. Joseph Fourier Institut des Sciences de la Terre (ISTerre)
- Regional Authority of Cephalonia & Ithaca (RACI)

## History in brief

Due to the high seismicity of the Cephalonia & Ithaca islands - the highest in Europe - three years ago a fruitful collaboration has been established between TEI of Argostoli, EPPO-ITSAK and ISTerre under the auspices and support of Regional Authority of Cephalonia & Ithaca. These islands were chosen as the best natural "shaking tables" in Europe in order to deploy temporary seismometric and accelerometric arrays. The aim was to record seismic ground motion on various geological conditions in order to study site effects and contribute to seismic prevention and protection of built environment in general, through the improvement of building codes. The first scientific results of these efforts are promising and seem to be beneficial not only for the Regional Authority of Cephalonia & Ithaca but for Europe as a whole and various scientific and technical institutions of various European countries as well.

# Necessity of a MoU

Considering the high level of seismic activity of the Cephalonia & Ithaca islands and the promising results of the temporary experiment, it was considered in September 2013, to establish on the island of Cephalonia an experimental "pilot site" for investigations on seismic ground motion. The recent earhquakes in Cephalonia (Jan. & Feb., 2014) confimed this idea to be a wise and rewarding choice. Furthermore, the recent earthquake sequence made it both challenging and necessary for the local society (e.g. Regiolal Authority, Technical Chamber of Greece, TEI) to coordinate/develop as soon as possible various prevention actions against strong ground shaking in collaboration with relevant national and international research centers (among others; EPPO - ITSAK, ISTerre, CEA¹) in order to decrease seismic consequences on human beings and built environment.

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CEA : Commissariat à l'Energie Atomique et aux Energies Alternatives (France)

### Goals of the MoU

The main goals of this MoU can be described as follows:

- To develop appropriate infrastructure and technology for providing solid and robust results in understanding strong ground motion properties and their possible consequences on human beings and built environment or industrial facilities.
- To disseminate all useful and practical findings to local society and beyond.
- To establish in the Koutavos Park area an experimental "test site" to investigate the non-linear response of 3D alluvial basins, starting with a vertical and 2D array (accelerometers at different depths within boreholes and on surface) with possible future extension of instrumentation on representative structures.

# Means for a Successful Agreement

Each Partner will contribute to the MoU with its own expertise to ensure its success and more specifically:

- TEI offers its existing infrastructure and facilities and provides technological support in data acquisition, storage and dissemination.
- EPPO ITSAK provides its scientific and logistical assistance to ensure an optimal quality for the data and metadata and coordinates the agreement in close collaboration with TEI and ISTerre.
- ISTerre covers the expenses for the installation of the 2D borehole/surface array, including boreholes and instruments, contributes to the scientific analysis of the data, and to their public, free dissemination. The costs associated to this installation and its maintenance are covered by a public funding from the French "PIA" program through the "SINAPS@" project (grant ANR-11-RSNR-0022) for 4 year period from its installation scheduled in Fall 2014.

- RACI will support and facilitate the implementation of the agreement with every legal way or action.

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21 / 7/2014

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Ans

RACI

our le Président

Respuisable du Service de Projets

AGNES GUERRAZ

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