



AGEO – Natural hazard prevention and awareness raising through citizen observatories.

Ariadna Ortega Rodriguez¹, Rui Carrilho Gomes², Filipe Telmo Jeremias³, Juan Carlos Santamarta Cereza⁴, Lidia Quental⁵, Inés Galindo Jiménez⁶, Vitor Correia⁷, Cláudia Narciso Pinto⁸, Nicolas Le Dantec^{9,10}, Fátima Gouveia¹¹, Kirstin Lemon¹², Alain Hénaff¹⁰, and Gregory O'Hare¹³

¹La Palma Research S.L., Garafía, Canary Islands, Spain (ariadna.ortega@lapalmacentre.eu)

²Instituto Superior Técnico - Universidade de Lisboa, Lisbon, Portugal (Rui.carrilho.gomes@tecnico.ulisboa.pt)

³Laboratório Nacional de Engenharia Civil, Lisbon, Portugal (ftelmo@lnec.pt)

⁴Departamento de Ingeniería Agraria, Náutica, Civil y Marítima. Universidad de La Laguna (ULL), La Laguna (Tenerife). España (jcsanta@ull.edu.es)

⁵Laboratório Nacional de Energia e Geologia, Amadora, Portugal (lidia.quental@lneg.pt)

⁶Spanish Geological Survey (IGME), Unit of Canary Islands, Las Palmas of Gran Canaria, Spain (i.galindo@igme.es)

⁷Portuguese Geologists Association, Lisbon, Portugal (vcorreia@apgeologos.pt)

⁸Lisbon City Council, Lisbon, Portugal (claudia.pinto@cm-lisboa.pt)

⁹Cerema, Margny-lès-Compiègne, France (nicolas.ledantec@univ-brest.fr)

¹⁰University of Bretagne Occidentale, Plouzané, France (nicolas.ledantec@univ-brest.fr)

¹¹Universidade da Madeira, Funchal, Portugal (fatima.gouveia@staff.uma.pt)

¹²Geological Survey of Northern Ireland, Belfast, Northern Ireland (klem@bgs.ac.uk)

¹³University College Dublin, Dublin, Ireland. (gregory.ohare@ucd.ie)

The Platform for Atlantic Geohazard Risk Management (AGEO) is a new project co-financed under the Interreg Programme for the Atlantic Area which aims to launch five Citizens' Observatory pilots on geohazards according to regional priorities:

- Citizens' observatory on rockfalls and rockfall-triggers in the **Canary Islands, Spain**
- Peat-slides and peat massmovement monitoring and control in **Cuilcagh Mountain, Northern Ireland**
- Multihazard Citizens' Observatory in **Lisbon, Portugal**
- Citizens' observatory of slope instability monitoring along the **Cliffs of Moher, Ireland**
- Citizens' observatory of vulnerability to coastal Risks in **Brittany, France**

These will demonstrate how citizens' involvement in geohazard risks prevention can strengthen regional and national risk management systems. Instituto Superior Técnico (Portugal) leads the consortium of AGEO that also counts with several other partners from Portugal, Spain, France, Ireland and the United Kingdom.

AGEO will engage with local communities to actively participate in risk preparedness and monitoring and incorporate local capacities into risk management systems. Experiences gained

during the implementation of the Citizens' Observatory pilots will be used to formulate recommendations for the creation of future observatories in response to the widest range of hazards (both natural and human-induced) faced in the Atlantic region.

The Observatories are part of the phenomenon of citizen science. As defined by the EC, "Citizens' Observatories are community-based environmental monitoring and information systems. They build on innovative and novel Earth observation applications embedded in portable or mobile personal devices. This means that citizens can help and be engaged in observing our environment."

There are many other definitions, as it is still a novel concept, but for this project the one above will be used. It is an observatory in a sense that we need careful monitoring of the risks that will be defined per region in line with a set of parameters to be defined through engaging with participating citizens to be filled in by the participating citizens. This approach lends the opportunity of collecting large amounts of data for very little to no money with the added bonus of the territorial coverage such approach can grant. Additionally, spatial data infrastructures and services already in place, e.g. Copernicus, will support the assessment and monitoring of geohazards and risk management systems.

AGEO is also organizing workshops in each participating region to ensure the citizens understand the role they play in preventing and mitigating natural risks by being part of the observatories and hopefully encouraging new members to join. These workshops will be held in the national language of the region and are to be tailored to the different audiences and will democratize the use of the observatories by listening to the people using them and taking into account their needs.