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Contribution of the EVER-EST project to the community of the Geohazard Supersites initiative

Elisa Trasatti (1), Giuliana Rubbia (1), Vito Romaniello (1), Luca Merucci (1), Stefano Corradini (1), Claudia Spinetti (1), Giuseppe Puglisi (1), Sven Borgstrom (1), Stefano Salvi (1), Michelle Parks (2), Tobias Dürig (2), and Freysteinn Sigmundsson (2)

(1) Istituto Nazionale Geofisica e Vulcanologia, Italy, (2) Nordic Volcanological Center, Institute of Earth Sciences, University of Iceland

The EVER-EST project (European Virtual Environment for Research - Earth Science Themes: a solution) is a H2020 project (2015-2018) aimed at the creation of a Virtual Research Environment (VRE) focused on the requirements of the Earth Science community. The VRE is intended to enhance the ability to collaborate, interoperate and share knowledge and experience between all relevant stakeholders, including researchers, monitoring teams and civil protection agencies.
Among the innovations of the project is the exploitation of the "Research Object" concept (http://www.rohub.org), i.e. "digital objects that encapsulate essential information about experiments and investigations to facilitate their reusability, reproducibility and better understanding". Research Objects encapsulate not only data and publications, but also algorithms, codes, results, and workflows that can be stored, shared and re-used.
The European subgroup of the GEO Geohazard Supersites community involved in the project (INGV, University of Iceland) has provided user requirements and user scenarios, as well as created Research Objects embedding research activities and workflows on the Permanent Supersites Campi Flegrei, Mount Etna and Icelandic Volcanoes. These Supersites play the role of test sites for the platform, but during the last year of the project other Supersites may also be involved, to demonstrate the added value of the collaborative environment in research activities aiming to support Disaster Risk Reduction.
Using the VRE, the Supersite scientists should be able to collaborate with colleagues located in different parts of the world, in a simple and effective way. This includes being able to remotely access and share data, research results and ideas, to carry out training sessions and discussions, to compare different results and models, and to synthesize many different pieces of information in a single consensus product to be disseminated to end-users. A further need of the Supersite scientists, which can be fulfilled by EVER-EST especially in less developed countries, is the need to access computing resources and software codes for data processing and modelling, as well as tutoring in data analysis and interpretation. Examples and results illustrating the effective use of the first release of the VRE will be presented at the conference.