Geophysical Research Abstracts
Vol. 17, EGU2015-15581-1, 2015
EGU General Assembly 2015

MEDiterranean Supersite Volcanoes (MED-SUV) project: state of the art and main achievements after the first 18 months

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Taking account of the valuable resources and information available for Mt. Etna, Campi Flegrei, and Vesuvius Supersites, MED-SUV aims at exploiting the huge record of geophysical, geochemical and volcanological data available for the three Supersite volcanoes and carry out experiments to fill gaps in the knowledge of the structure of these volcanoes and of the processes driving their activity. The project's activities have focused on (1) gaining new insights into the inner structure of these volcanoes; (2) evaluating the suitability of the current EO and in-situ observations to track the dynamics of the volcano supply system and/or the eruptive phenomena, (3) making the access to observations easy; (4) defining the effects of magma ascent on the stress/strain field (and vice versa); (5) assessing the capability of the Earth science community to forecast the occurrence of eruptions in terms of both location and time of an eruption; (6) optimizing the chain from observations to end-users during an eruptive event; and (7) making the project outcomes "exportable" to other European volcanic areas and elsewhere. Indeed, the overall goal of the project is to apply the rationale of the Geohazard Supersites and Natural Laboratories GEO-GEOSS initiative to the three volcanoes, in order to better assess the volcanic hazards they posed.

In the first 18 months, MED-SUV consortium carried out activities relating to coordination, scientific/technological development, and dissemination. Coordination included mainly meetings organised in order to start the project and consortium activity and to strengthen the synergy with EC and international initiatives, such as geohazard activities of GEO-GEOSS, EPOS-PP and the other two FP7 Supersite projects, MARsite and FUTUREVOLC.
The main scientific/technological results included the design and development of a prototype (NETVIS) for the optimization and implementation of processing tools for the analysis of Mt. Etna's camera network, design of the interoperable architecture of the e-Infrastructure of the project, preliminary results of the geophysical and geochemical campaigns carried out at Campi Flegrei and Vesuvius volcanoes, TOMO-ETNA seismic experiment, and multidisciplinary campaigns at Mt. Etna's North-East crater. Beside these results, key achievements were the definition of the guidelines for the consortium data policy, MED-SUV website and facebook webpage, MED-SUV video in cooperation with INGV and ESA, and educational activities in selected schools of countries involved in the project.