



EUROVOLC – A European Network of Observatories and Research Infrastructures for Volcanology

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To support the European volcanological community's infrastructure and community building within EPOS (the European Plate Observing System), a new EU Horizon2020 Infrastructure project, EUROVOLC was established in 2018. The project, which is carried by 17 research and monitoring institutions, 2 civil protection agencies, a volcanic ash advisory center and 4 companies from R&D, IT and geothermal industries, includes a diverse group of Earth and atmospheric scientists from 9 European countries.

EUROVOLC's efforts fall under four main themes: (1) Community building, (2) sub-surface processes, (3) volcano-atmosphere interaction, and (4) volcanic crisis preparedness and risk management. The combined goals of these efforts are to: (i) network the European volcanological community and facilitate access to its data and research infrastructures; (ii) enhance knowledge transfer between Volcano Observatories (VO) and Volcano Research Institutions (VRI) and foster development of new, integrated, multidisciplinary volcanological observing systems; (iii) define new strategies for best practices and harmonization in communication between scientists and society to strengthen interaction and communication between the community and its stakeholders; (iv) advance and optimize volcanological research activities to assure the best possible response before, during and after volcanic crises.

During its first year of operation, EUROVOLC has enabled trans-national access to the VOs' and VRIs' research infrastructures through open research calls and the selected projects will be carried out in summer 2019. Several services, providing virtual access to volcanological products and modeling have been activated and construction of a web service, providing virtual access to a new European Catalogue of Volcanoes (ECV) has started. Preparations have also started for the first of two summer schools, which will be held at Mt Etna in 2019. Work is underway to develop access to additional, multidisciplinary data and databases from volcanic areas. Field surveys have been conducted to develop best practices in gas observations and workshops held to build connections within the volcanological community as well as between the volcanological community and the European volcanic ash advisory centers. The research work within EUROVOLC focuses on determination of eruptive source parameters to improve modelling of volcanic plumes, development of pre-eruptive unrest detection schemes based on real-time processing of geophysical and geochemical data, and rapid integration and modelling of geophysical, geochemical and petrological data to monitor magma migration and changes in magmatic systems. EUROVOLC will interact closely with and utilize the Volcanological Thematic Core Service (VO-TCS) of EPOS to distribute and service the data and products which will be networked in the project.

Institutions participating in EUROVOLC are:

Azorean Center of volcanoseismological Information and surveillance (CIVISA), Dublin Institute for Advanced Studies, Icelandic Meteorological Office, Institute of Geology and Mineral Exploration (IGME), National Institute of Geophysics and Volcanology (INGV), National Research Council of Italy (CNR), Paris Institute of Earth Physics (IPGP), Spanish National Center for Geographic Information (IGN), Spanish National Research Council (CSIC), UK National Center for Atmospheric Science (NCAS).

Universities of: Clermont Auvergne, Florence, Geneva, Iceland, Leeds, Manchester, Rome Sapienza.

UK Met Office, Icelandic and Italian Civil Protections.

Terradue srl, Italy; ITEM srl, Italy; Landsvirkjun National Power Company of Iceland; Samsýn, Iceland.