



1312

Data and service management of the European volcanological community by the Volcano Observations Thematic Core Service (EPOS-ERIC)

Dr Giuseppe Puglisi¹, Dr. Lucia Cacciola¹, Dr. Adelina Geyer², Eng. Davíð Steinar Guðjónsson³, Eng. Yannick Guehenneux⁴, Prof. Jean-Christophe Komorowski⁵, Dr. Philippe Labazuy⁴, Dr. Arnaud Lemarchand⁵, Dr Rosella Nave⁶, Dr Jean-Marie Saurel⁴, Eng. Danilo Reitano¹, Dr. Letizia Spampinato¹, Dr. Kristín Vogfjörd³
¹*Istituto Nazionale di Geofisica e Vulcanologia (INGV), Catania, Italy*, ²*Geosciences Barcelona, CSIC, Barcelona, Spain*, ³*Icelandic Meteorological Office (IMO), Reykjavík, Iceland*, ⁴*Université Clermont Auvergne (UCA), CNRS, OPGC, Clermont-Ferrand, France*, ⁵*Université Paris Cité, Institut the Physique du Globe, CNRS, Paris, France*, ⁶*Istituto Nazionale di Geofisica e Vulcanologia (INGV), Naples, Italy*

The Volcano Observations Thematic Core Service (VOLC-TCS) is one of the TCSs forming the EPOS European Research Infrastructure Consortium (EPOS-ERIC). The overarching objective of the VOLC-TCS is the implementation of the technical and legal framework consistent with EPOS infrastructure for both coordinating the European volcanology community and giving access to data and services relevant to the volcanoes located in the European countries and their overseas territories, provided by Volcano Observatories (VOs) and Research Institutions (VRIs).

To ensure a long-term sustainable operational infrastructure it was necessary to define a clear financial, legal, political and governance framework, alongside the solution of technical issues. One of the main challenges of the management of volcanological data consists in their great heterogeneity, regarding technical characteristics, and also legal aspects (e.g., different data policies among the data providers, different purposes for the use of data from science to monitoring, early-warning, information, etc.). Another challenge derives from the consistency of the VO-TCS with the service provision of EPOS, which characteristic is to merge different Earth Science communities (seismology, GNSS, geomagnetic, geochemistry, geology, etc.). Indeed, some of the services used in volcanology are in common with other communities, thus the implementation work was also devoted to harmonize the provision of data and products standardized by other TCS with the provision of volcanological services. Another important task is the implementation of the community Gateway which is aimed at allowing services not fully compliant with EPOS or implemented by institutions outside the EPOS perimeter, to be visible in EPOS and creating the conditions to interface the VOLC-TCS with data infrastructures operating at global level (e.g., WOVOdat).