



## **Interoperability of Volcano Observation Thematic Core Services with the EPOS Integrated Core Services**

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The volcano observations community, represented by Volcano Observatories (VO) and Volcano Research Institutions (VRI) participating in The European Plate Observing System (EPOS), will implement services to enable open access to data, data products, software and services (DDSS) from the community. Technical implementation of these services is established within the Volcano Observations Thematic Core Service (VO-TCS), which will coordinate activities among the contributing VOs and VRIs to ensure their interoperability with the EPOS Integrated Core services (ICS). The goal is to implement a service-oriented architecture (SOA) to guarantee interoperability among the different components of the VO-TCS and the EPOS-ICS architecture. This entails linking and harmonizing the technical implementation of the VO-TCS with the EPOS-ICS, defining standards for TCS-ICS interaction and implementing a prototype for a RESTful service (REpresentational State Transfer). The VO-TCS services will also coordinate with services and platforms already developed and implemented within the two Volcano Supersite projects, FUTUREVOLC and MED-SUV and will utilize some of their already established services to enable initial access to the community's products.

To prepare for initial implementation in the fall of 2017, a survey among the VO-TCS participants was carried out to evaluate the maturity level of their different products (DDSSs). The specific goal was to obtain a report for each participating institution describing the real cross-reference between each DDSS status and the TCS requirements, as well as to determine the availability of data and metadata for each DDSS and their level of maturity. Data and metadata similarities between the participants highlighted by the survey results are used to reorganize and simplify the list of products to be made available in the VO-TCS. The presentation will give an overview of the planned services in the Volcano Observations TCS and outline the roadmap for the technical implementation.