



## The Volcanic Ash Strategic Initiative Team (VAST) - operational testing activities and exercises

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The project VAST performs its activities within an ESA (European Space Agency) initiative to enhance the use of Earth Observation (EO) data in volcanic ash monitoring and forecasting. The VAST project aims at further exploring the suitability of EO data for such activities and to improve volcanic ash atmospheric transport forecasting services through exercises and demonstration activities in operational environments.

Previous to the in-house deployment of the demonstration service, several exercises on operations and communication exchange are needed and first results are presented here. These exercises include technical in-house settings and conceptual planning of the operations with procedure development, volcanic eruptions drills that trigger the acquiring of data and dispersion/forecasting calculations with preliminary estimates of source terms and finally, an international exercise that provides a test case volcanic event to evaluate response times and the usefulness of the different products obtained. Products also include ensemble dispersion forecasts, on one hand multi-input ensembles utilizing the ECMWF EPS system, and on the other hand multi-model ensembles based on different dispersion models driven with different input data.

As part of the work, socio-economic aspects need to be taken into account as well. This includes also the identification of best practices on how results can be presented to the stakeholders, including national authorities and policy makers, and the general public.