

VOLRISKMAC - Strengthening R & D & I capacities for the monitoring of volcanic activity in Macaronesia

Pedro A. Hernández¹ (phdez@iter.es), Luca D'Auria², Nemesio M. Pérez³, Rita Silva Marques^{4,5}, Catarina Silva^{4,5}, Susana Prada⁶, Sonia Silva⁷ and Sonia Calvari⁸

¹ Instituto Volcanológico de Canarias (INVOLCAN), Puerto de la Cruz, Santa Cruz de Tenerife, Canary Islands, Spain

² Instituto Tecnológico y de Energías Renovables (ITER), Granadilla de Abona, Santa Cruz de Tenerife, Canary Islands, Spain

³ Agencia Insular de la Energía de Tenerife (AIET), Granadilla de Abona, Santa Cruz de Tenerife, Canary Islands, Spain

⁴ Centro de Informação e Vigilância Sismovulcânica dos Açores (CIVISA), Ponta Delgada, Sao Miguel, Azores, Portugal

⁵ Instituto de Investigação em Vulcanologia e Avaliação de Riscos (IVAR), Ponta Delgada, Sao Miguel, Azores, Portugal

⁶ Institute of Forestry and Nature Conservation (IP-RAM), Funchal, Madeira, Portugal

⁷ Observatório Vulcanológico de Cabo Verde (OVCV), Universidade de Cabo Verde (UniCV), Campus do Palmarejo, Praia, Santiago Island, Cape Verde

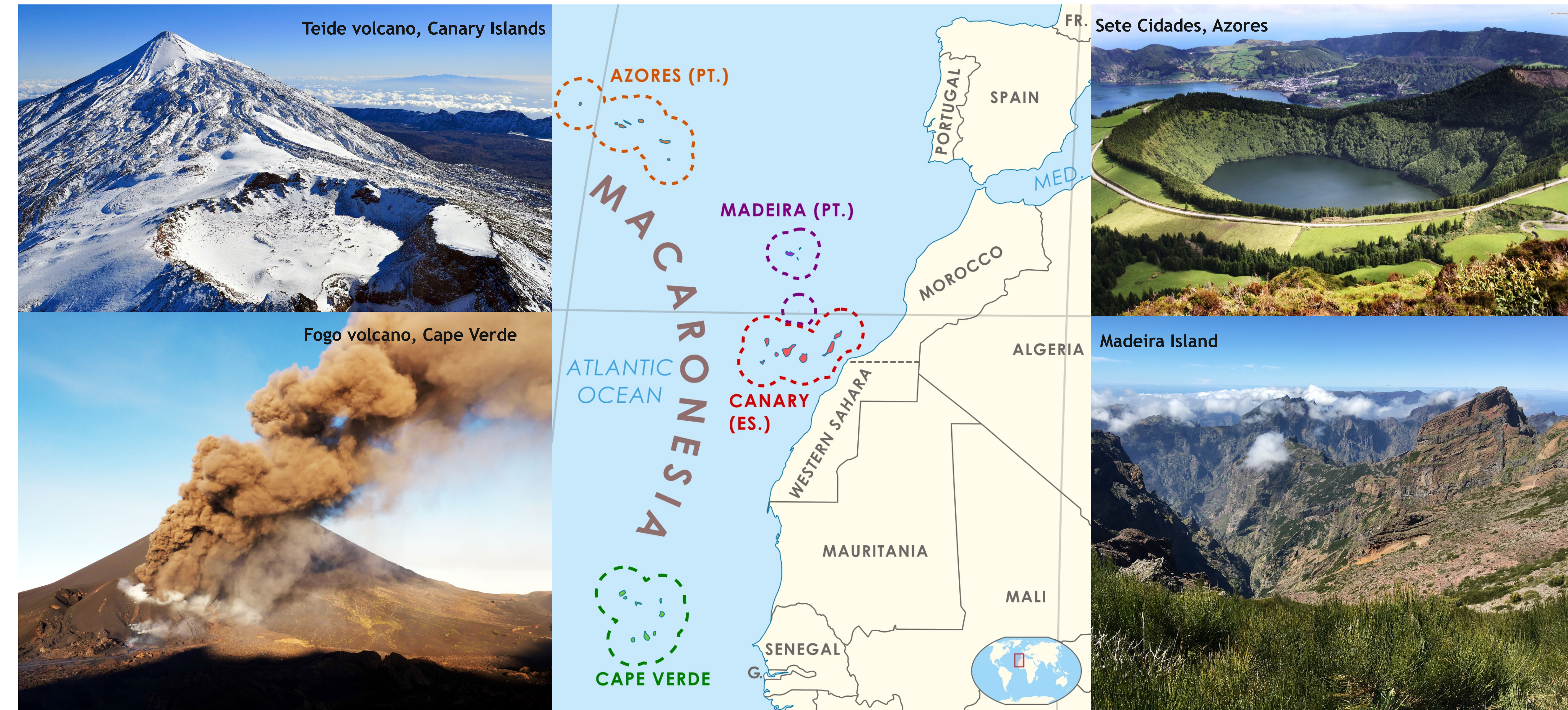
⁸ Istituto Nazionale di Geofisica e Vulcanologia (INGV), Osservatorio Etneo - Sezione di Catania, Catania, Italy



VOLRISKMAC (MAC/3.5b/124) is a project financed by the Interreg Madeira-Azores-Canarias (MAC) 2014-2020 Territorial Cooperation Program -Axis 3 - Promote adaptation to climate change and risk prevention and management.

The main objective of the project VOLRISKMAC is to strengthen capacities for the monitoring of volcanic activity, with the aim of improving the early warning system for volcanic eruptions and earthquake crisis, as well as the management of volcanic crises in Macaronesia.

The volcanic risk in Macaronesia is now bigger than 50 years ago due to greater population and socio-economic development in the region exposed to the hazards associated with the volcanic phenomenon. As this development will



continue over the next few years, volcanic risk in the region will be higher in 2050 than it is today. Therefore, it is very important to strengthen all capacities to contribute to the reduction of volcanic risk in the region, especially when this is the natural risk flag of this region and differentiating it from the rest of mainland Spain and Portugal. The geographical

areas of intervention of this project are the archipelagos of Macaronesia: Azores, Madeira, Canary Islands and Cape Verde. In the Canary archipelago, activities will be carried out in Tenerife, La Palma, Lanzarote and El Hierro. In the Azores is developed on the island of Sao Miguel. In Cape Verde, these activities are focussed mainly on the island of Fogo.

Partners:

Principal Recipient

• Volcanological Institute of Canary Islands (INVOLCAN), Canary Islands (Spain)

FEDER Recipients

• Technological Institute of Renewable Energies (ITER), Canary Islands (Spain)

• Tenerife Energy Agency, Canary Islands (Spain)

• Research Institute for Volcanology and Risk Assessment (IVAR), Açores (Portugal)

• Center for Information and Seismicvolcanic Surveillance of the Azores (CIVISA), Açores (Portugal)

• Institute of Forestry and Nature Conservation, (IP-RAM), Madeira (Portugal)

Third country participant

• University of Cape Verde (UCV), (Cape Verde)

Associated participant

• National Institute of Geophysics and Volcanology (INGV), Catania (Italy)

Specific objectives:

O.E.1: Strengthen permanent instrumental networks (continuous mode) to improve volcanic monitoring programs in Macaronesia.

O.E.2: Strengthen non-continuous geophysical, geochemical and geodetic programs to improve volcanic monitoring programs in Macaronesia.

O.E.3: Strengthen crisis management and response capacity for volcanic natural disasters and associated hazards in Macaronesia.

Activities:

Activity 2.1.1: Strengthening of the geophysical permanent instrumental network.

Activity 2.1.2: Strengthening of the geochemical permanent instrumental network.

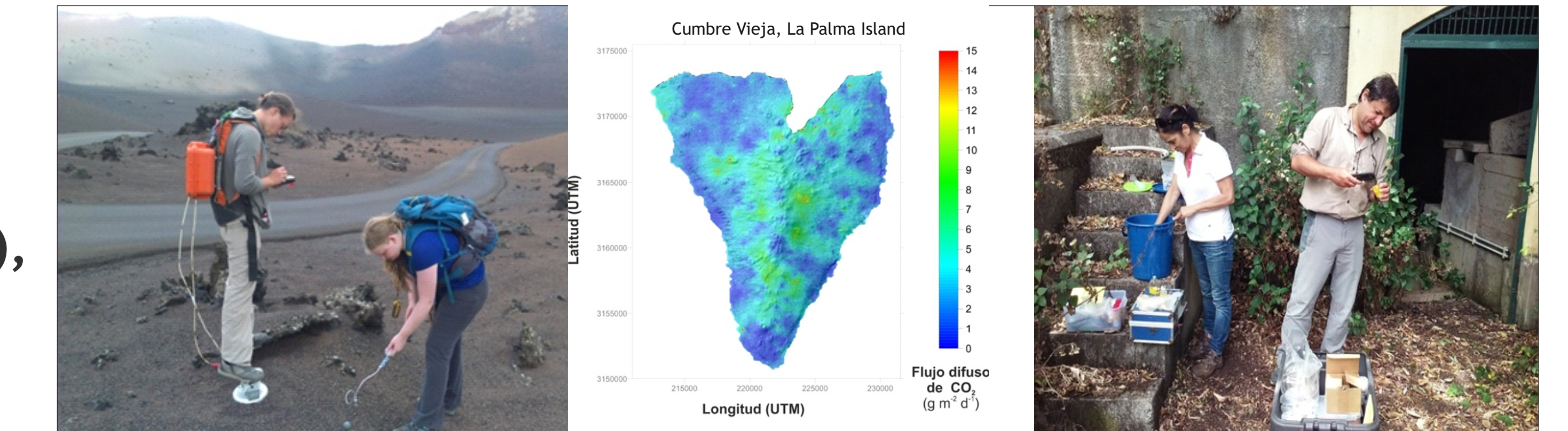
Activity 2.1.3: Strengthening of the geodetical permanent instrumental network.



Activity 2.2.1: Strengthening of the non-continuous geophysical instrumental network.

Activity 2.2.2: Strengthening of the non-continuous geochemical instrumental network.

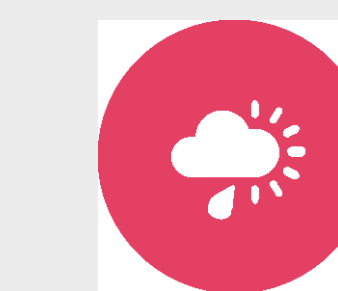
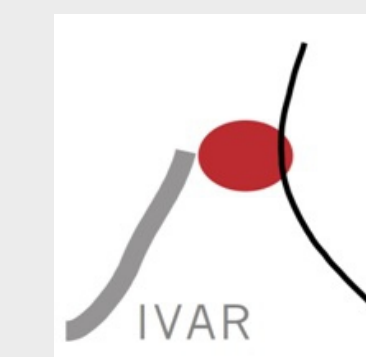
Activity 2.2.3: Strengthening of the non-continuous geodetical instrumental network.



Activity 2.3.1: Development of early warning systems through the implementation of ICTs.

Activity 2.3.2: Simulation and creation of eruptive scenarios.

Activity 2.3.3: Workshops for the dissemination of results and the simulation of potential eruptive scenarios.



web: <http://volriskmac.com>