



The Geohazards Office support to the CEOS Working Group on Disasters

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The Geohazards Office is an activity integrated in the Geohazards Lab initiative within the Committee on Earth Observation Satellites (CEOS) Working Group on Disasters (WG Disasters) to enable a greater use of Earth Observation (EO) data and derived products to assess geohazards and their impact. The CEOS WG Disasters is a collaboration among ten space agencies, comprising a range thematic pilots and demonstrators (multi-hazard Recovery Observatory, GEODARMA etc.), led by CEOS in the frame of the inter-governmental Group on Earth Observations (GEO). The aim is to establish an inclusive, comprehensive process to optimise the use of EO technologies starting from the needs of national and local decision-makers in political and socio-economic sectors relevant to DRM.

In addition, a new activity initiated within the CEOS WG Disasters is the Geohazards Lab, an initiative based on a group of interoperable platforms with federated resources providing EO data access, hosted processing and e-collaboration capabilities to animate and support the geohazard user community. It is originated by the European Space Agency (ESA), the German Space Research Centre (DLR), the Italian Space Agency (ASI) and the French Space Agency (CNES). One of its precursors is the Geohazards Exploitation Platform (GEP), an ESA originated processing platform made available since 2016 within the CEOS WG Disasters pilot on seismic hazards. The Geohazards Lab focuses on different thematic areas of geohazards, typically seismic, volcanoes, terrain subsidence and landslides. The users of the Geohazards Lab include users from the WG Disasters pilots and demonstrators, the RO, the Geohazards Supersite and Natural Laboratories (GSLN) and GEO-DARMA who are able to execute processing chains on the platform as well as other EO experts/geoscience centers already contributing to precursors activities such as the users of the GEP.

In this context, the Geohazards Office, envisaged and supported by ESA in collaboration with CNES is an activity to develop a collaborative framework with expert geoscience centres and users to achieve a greater adoption of EO methods. Its goals are to support the exploitation of hosted processing capabilities with a focus on Cloud processing solutions, define consensus methods in liaison with experts to harmonize EO based processing results, establish a methodological approach to support the generation of reference ground deformation measurements in support to historical hazard analysis, and finally, utilize available EO capabilities looking at geohazards. The Geohazards Office intends to help bridge the gap between the space community and the geohazards community with a strong focus on expert users from geoscience centres who are the priority intermediaries with end users from DRM organisations.