
ESA's Thematic Exploitation Platforms initiative and the GEP for terrain motion measurements

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Résumé

In 2014, ESA has started the EO Exploitation Platforms (EPs) initiative, a set of R&D activities that in the first phase aims to create an ecosystem of interconnected Thematic Exploitation Platforms (TEPs) on European footing.

The Geohazards Exploitation Platform (GEP, <https://geohazards-tep.eo.esa.int/#!>) is an activity originated by ESA to directly support the geohazards community exploiting satellite EO data to assess geohazards. The GEP supports data storage and dissemination of many different EO resources (e.g. SAR missions, Very High Resolution Optical missions); provides on-line hosted processing for geohazard assessment (e.g. terrain motion monitoring based on InSAR or stereo-optical data; and promotes and strengthens collaborative work (e.g. sharing results with the community) and community building. In particular, users of the CEOS Working Group on Disasters Seismic Hazards and Volcano Pilots (<http://ceos.org/ourwork/workinggroups/disasters/>) and the Geohazard Supersites and Natural Laboratories (GSNL <http://www.earthobservations.org/gsnl.php>) community have been experimenting with the GEP functionalities such as data delivery, on-line processing and e-collaboration since 2015.

The well-set example of the CEOS Seismic Hazards Pilot has demonstrated that the GEP capabilities have been valuable to access, generate and promote scientific information of high value for the scientific and end-user community. As an evolution of GEP in the broader context of CEOS, the Geohazards Lab initiative has been proposed in the frame of CEOS Working Group on Disasters.

The GEP will contribute to the Geohazards Lab, which is a platform with federated resources from CEOS agencies (e.g. ASI, CNES, DLR and ESA) and community partners (e.g. CNR IREA) that provides data delivery mechanisms, on-line processing tools and services and an e-collaboration environment to exploit EO data to assess geohazards and their impact. The Geohazards Lab will support primarily, the CEOS and GSNL users but also users from the entire geohazards community.

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