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ESA's Geohazards Exploitation Platform support to Geohazard Supersites and Natural Laboratories community

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A continuous objective of the European Space Agency (ESA) is to further enable the use of EO data using the full range of new Information Technology (IT) capabilities. Besides ensuring development and operations of suitable satellites, considerable attention is given on innovation with satellite data management, hosted processing, access to scientific toolboxes and animation of the user communities in different thematic areas. Looking at geohazards, the Geohazards Exploitation Platform or Geohazards TEP (GEP) is an R&D activity on the EO ground segment to demonstrate the benefit of new technologies for large scale processing of EO data. Its purpose is to support the geohazards community in the context of the CEOS WG Disasters and GEO. This is based on community objectives for both science and operations as defined in the context of the International Forum on Satellite EO and Geohazards organised by ESA and GEO in Santorini in 2012. The GEP is a follow on to the Supersites Exploitation Platform (SSEP) an ESA initiative to support the Geohazards Supersites & Natural Laboratories initiative (GSNL). As part of the CEOS WG Disaster activity the GEP has been made available to the CEOS Seismic, Volcano and Landslides Pilots and it is intended to support the CEOS Recovery Observatory activity. The CEOS Seismic Pilot has a clear objective to collaborate with the GSNL about hosted processing and e-collaboration with the GEP. The platform developed by Terradue facilitates the use and processing of large and diverse datasets by a range of science users and end users, using computing resources to exploit available services and supporting specialist users willing to integrate and exploit new services. The GEP looks at the federation of user communities and promotes shared science objectives and supports e-collaboration (e.g. knowledge base, open publications, social networking). The Geohazard Supersites and Natural Laboratory initiative (GSNL) is a voluntary international partnership aiming to improve, through an Open Science approach, geophysical scientific research and geohazard assessment in support of Disaster Risk Reduction. To reach these goals, the GSNL initiative is looking at increasing the number of Supersites and improving several management and IT aspects, strengthening the way the Supersite scientists collaborate and generate new science. To support this the GEP provides data access and storage over tectonically active regions worldwide, access to advanced processing tools (e.g. InSAR and Optical displacement mapping chains) and services as well as a collaborative work environment and scientific animation. In the current work, latest activities and achievements of GSNL partners and users exploiting the GEP, including important organizations worldwide such as INGV (IT), CNR IREA (IT), CNRS ENS (FR), NOA (GR), ISTerre (FR), OPGC (FR), USGS (US) etc., will be presented and discussed.