



The pan-European Virtual Hub for facilitating access and use of geospatial Open Data

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The ENERGIC OD project (European Network for Redistributing Geospatial Information to user Communities - Open Data), funded by the European Union under the Competitiveness and Innovation framework Programme (CIP), started in October 2014 and ended in September 2017.

The project recognized that there is a clear need for advanced infrastructures increasing the usability of geospatial open data, to fully unleash the potential of geoinformation. In line with the EU call, the general objective of the project was to “facilitate the use of open (freely available) geographic data from different sources for the creation of innovative applications and services through the creation of Virtual Hubs”.

ENERGIC-OD achieved its major goal by creating a Virtual Hub framework and deploying a pan-European Virtual Hub (pEVH) on a public cloud, exploiting its elastic capabilities to achieve high scalability in terms of metadata volume and data transformation velocity.

The pEVH connects directly or indirectly (i.e. through local and national Virtual Hubs) more than 500 data sources, including sources of major datasets like Landsat 8, Sentinel 1 and 2, for more than 3,000,000 discoverable metadata records. The interface to the pEVH consists of: a) a multilingual Web site, developed as point of access to information for potential end-users, developers and providers; and b) a data portal developed by ESA and based on the GEOSS Portal Mirror technology.

The design and implementation of the pEVH was based on the recommendations from pEVH users, as obtained during public national and international contests, in workshops, as well as in other venues (conferences, focus groups, brainstorming sessions). The solution was tested and validated developing ten innovative applications using the pEVH in different application domains.

In its basic version, the pEVH is available free of charge to all users in Europe, thus lowering the barriers of accessing it, promoting the use of open data brokered by the pEVH and, in the long term, leading to increased innovativeness of the companies in the geoinformation sector. A freemium business model was designed for sustainability after the end of the project. According to such a model, some functionalities of the pEVH – e.g. capability to upload users' own datasets, creation of complex crowdsourcing applications, connection of sensor networks – will be available for a charge. This charge has been designed to be as low as possible, essentially just covering the operating costs of the pEVH.