European NEtwork for Redistributing Geospatial Information to user Communities - Open Data

ENERGIC OD

This project is funded by the European Union

Project Details

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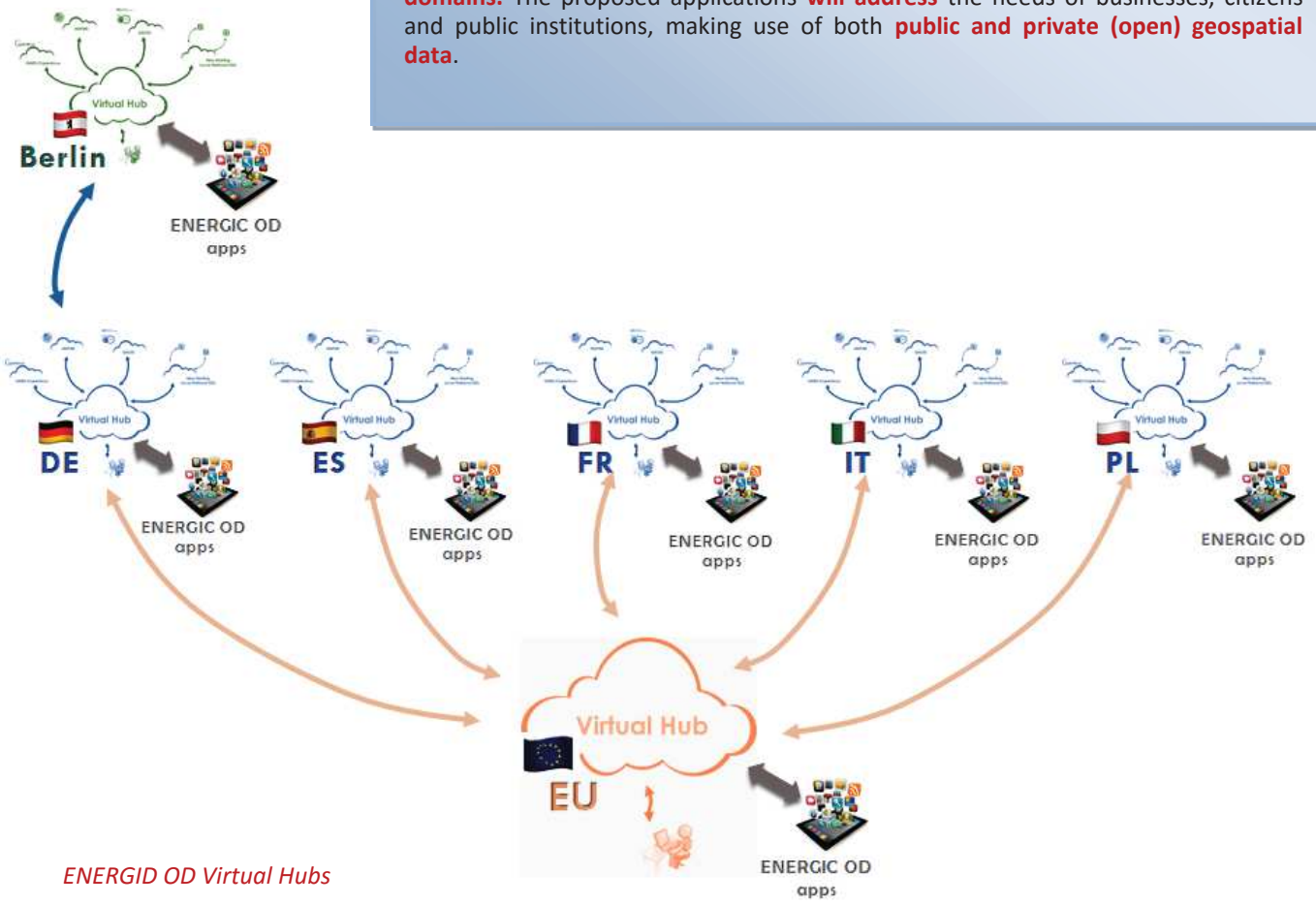
Institute Coordinator:
National Research Council of Italy
Institute of Atmospheric Pollution Research (CNR-IIA)

PROJECT OBJECTIVES

The **world of geographic information (GI)** is, at present, **extremely heterogeneous**. **User and system requirements**, too varied to be satisfied by a single system or technology, have led to an utter lack of **agreement on interoperability standards**, creating a barrier to realizing the **full exploitation potential of GI**.
ENERGIC OD addresses these problems by adopting **a broker architectural approach**, designed and developed in recent research activities and implemented in. In this approach, specific components (**the brokers**) perform all interoperability actions required to **interconnect heterogeneous systems**.

ENERGIC OD aims to:
Develop **a set of broker-based Virtual Hubs (VH)** at different territorial scales (regions, member states, Europe), providing unique and mutually consistent points of **access to heterogeneous data sources** for both end-users (via geoportals) and machines (service interfaces, APIs).
Demonstrate the validity of the concept, design, implementation and deployment of VHs through the development of a set of **ten innovative applications in different domains.** The proposed applications **will address** the needs of businesses, citizens and public institutions, making use of both **public and private (open) geospatial data**.



ENERGID OD Virtual Hubs

More information: **www.energic-od.eu**

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An innovative broker architectural approach for the full exploitation potential of geographic information (GI).

Work performed during the first year of project

1. SWOT analysis on previous European projects to identify relevant technological solutions for potential reuse in the development of the ENERGIC OD Virtual Hubs and applications
2. Survey of existing platforms for geospatial Open Data sharing to be connected at the ENERGIC OD Virtual Hubs as data sources
3. Requirements analysis for the implementation of Virtual Hubs
4. Design of the ENERGIC OD Virtual Hub system architecture
5. First cycle of development for the Virtual Hub enabling software
6. Requirement analysis for the pilot applications
7. Six workshops for requirements analysis and system design
8. Dissemination of project objectives and activities

Main results of the first year

1. Catalog of existing platforms for geospatial Open Data sharing to be connected at the ENERGIC OD Virtual Hubs as data sources
2. User and system requirements for the ENERGIC OD Virtual Hubs
3. ENERGIC OD Virtual Hub system architecture
4. Release of the first version of the ENERGIC OD Virtual Hub software
5. Deployment of five national-level Virtual Hubs in France, Germany, Italy, Poland and Spain and one regional Virtual Hub in Berlin
6. Dissemination material

Potential impact and use

The market of local authorities is organized around geographic information. Approximately one hundred EU regions have created Regional Centre of Geographic Information with the aim to buy data collectively and share skills in GIS (in particular for the implementation of the INSPIRE directive). Moreover national, regional, European and global initiatives and programmes are providing a huge amount of geo-information in the form of Earth Observation data and products from remote, in-situ and now also human sensors, through crowd sourcing.

The ENERGIC-OD Virtual Hubs will facilitate the development of new and multidisciplinary applications based on the full exploitation of (open) GI, including INSPIRE-compliant systems and Copernicus services, stimulating innovation, business activities and creation of job opportunities in the market of geospatial open data applications.

The ten pilot applications have potential impact and use on different domains ranging from land use, protection of the environment, health, cultural heritage, natural hazard assessment, biodiversity, etc.

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