PublicaMundi, an FP7 project aiming to make open geospatial data easier to publish, view, and reuse

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Significant investments have already been made across the EU towards INSPIRE, providing metadata/data, standards, FOSS, and SDIs. On the other hand, PSI and open data policies aim to provide a plethora of open data, with an emphasis on promoting growth (Data Economy). In this context, INSPIRE can be an excellent source of geospatial data, as well as a best practice for general-purpose geospatial data publishing. Vice-versa, open data catalogues can provide de facto INSPIRE conformance, in addition to broader web services for the private sector. This emerging convergence can be a win-win situation for both communities.

PublicaMundi is an FP7-funded research project originating from everyday problems faced by open data publishers and data consumers alike. Simply stated, open geospatial data are cumbersome to easily publish and consume for non-GIS experts. While most data publishers and developers are familiar with handling and using typical data, they are not familiar with the intricacies of geospatial data. Different coordinate reference systems, geospatial databases, map servers, special standardized APIs are some of the tools and know-how required to publish and reuse open geospatial data.

PublicaMundi aims to democratize open geospatial data publishing and reuse, making easier for publishers to share data and for developers to discover and reuse data. In a nutshell, PublicaMundi researchs and develop scalable, reusable tools and technologies to facilitate the publication, discovery and reuse of open geospatial data.

How will this be achieved?

- Extend open data catalogues to fully support the publishing, curation and management lifecycle of geospatial data.
- Develop and integrate tools enabling the interlinking of geospatial data their multilinguality in a cross-boundary context
- Provide scalable technologies and services to create and reuse on-demand maps from open geospatial data
- Develop analytics services to accurately monitor the usage of open geospatial data
- Develop scalable technologies and reusable data APIs supporting querying, processing, and analysis of open geospatial data

PublicaMundi is based on, and extends open source software for geospatial data management (Rasdaman, ZOO Project, GeoServer, CKAN, OpenLayers, PostGIS).

The first year of PublicaMundi has successfully ended with our first public beta, available in labs.geodata.gov.gr. This is a test-bed for all technologies developed by PublicaMundi, providing early prototypes of software.

Currently we provide:

- Full support (create, edit, import) for the most used geospatial metadata standards, tightly integrated in the publishing workflow, and with powerful programmatic support for adding further metadata standards.
• Full support for vector and raster geospatial data, automating their ingestion and provision through OGC services, interactive maps, and JavaScript APIs.

• On-demand transformation for published metadata and data in different formats and/or CRS.

• Powerful OGC services and JavaScript APIs, providing scalable and flexible querying, analysis, and visualization services for all published geospatial data.

During the first year based on the acquired from the FP7 project know how, GET implemented for the Municipality of Gortynia an Open Data System Infrastructure. For this project, GET developed Web Open Data Portal OpenDataGortynia.gr, which is the central public data catalogue of Gortynia Municipality and its objective it is to increase the access to high value, machine readable datasets through data and information catalogue, index, storage, search and distribution services as well as web services to the public and third party systems. Regarding geospatial data, a special Portal, gis.OpenDataGortynia.gr, which permits geospatial data discovery, viewing and downloading according to requirements of the Inspire Directive and the National Law 3882/2010, has been developed. The Portal can be used for conjunctive use of data of Gortynia Municipality with data of other parties which are offered over a relative process logic, this means via e-services (e.g. Regulatory Authority of Energy, Hellenic National Cadastre and Mapping Agency S.A, Ministry of Environment, Energy and Climate Change).