WP5: The Vaia Observatory

Marco Piragnolo, Francesco Pirotti

Objectives WP5

1) Create a repository of data and tools related to the project activities

2) Provide the necessary infrastructure that allows to collect, manage, and store datasets and link documents

3) Allow assisted uploading and sharing of data with other project participants and with the broader public
How?

1) Platform development
2) Data collection and organization
3) Development of ways to maximise the public use of the data

Web-GIS

Using a Web-GIS, the exchange of information takes place between a server and a client.

The server is a “Geospatial Information System (GIS) server”

The client is a web browser, desktop application or mobile app
The platform is a Web-GIS?

Spatial Data Infrastructure (SDI)

Is framework of technologies, policies, and institutional arrangements that together facilitate the creation, exchange, and use of geospatial data and related information resources across an information-sharing community.

U.S. National Research Council 1993
Spatial Data Infrastructure (SDI)

Geonode

GeoNode is an Open Source Content Management System (CMS) for geospatial data.

It is a web-based application and platform for developing geospatial information systems (GIS) and for deploying spatial data infrastructures (SDI).
Advisory Board mid-term evaluation

GEONODE

GEONODE IS MADE FOR

Users who log into a GeoNode website and use its functionality.

Administrators who install and deploy GeoNode websites in production for their Users.

Developers who write code to add functionality, integrate with other systems, fix bugs, and potentially help an Administrator set up a server and deploy a GeoNode instance for production.
GEONODE

Features
Spatial Data Discovery
- Spatial research Engine
- Federated OGC services
- Metadata Catalogue

Import and Manage
- Publish raster, vector, and tabular data
- Metadata management
- Secure file sharing

Interactive mapping
- GeoExplorer GIS client
- Graphical style editor
- Create multi-layer interactive maps
- Share and embed maps in web pages

Collaboration
- Quality score on data
- Group of users
- Post and message service

https://geonode.org/user_features/
Advisory Board mid-term evaluation

GEONODE

Import and Manage

Upload and share geospatial data, securely.

GeoNode makes it easy to upload and manage geospatial data on the web. Any user can upload and make content available via standard OGC protocols such as Web Map Service (WMS) and Web Feature Service (WFS). Data is available for browsing, searching, styling, and processing to generate maps which can be shared publicly or restricted to specific users only.

Supported upload formats include shapefile, GeoTIFF, KML, and CSV. In addition, it is possible to connect to existing external spatial databases and services.

Features include:
- Publish raster, vector, and tabular data
- Manage metadata and associated documents
- Securely or publicly share data
- Versioned geospatial data editor

https://geonode.org/user_features/

Advisory Board mid-term evaluation

Interactive Mapping

Create and share interactive web maps

GeoNode comes with helpful cartography tools for styling and customizing maps graphically. These tools make it easy for anyone to create a web-based mapping application with functionality traditionally found in desktop GIS applications.

Users can gain enhanced interactivity with GIS-specific tools such as querying and measuring.

Features include:
- GeoExplorer GIS client
- Graphical style editor
- Create multi-layer interactive maps
- Share and embed maps in web pages

https://geonode.org/user_features/
Advisory Board mid-term evaluation

GEONODE

Remote services

<table>
<thead>
<tr>
<th>Title</th>
<th>URL</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>OSM WMS UN Hidelberg 1</td>
<td><a href="https://maps%EF%BF%BD%EF%BF%BDigh.org/taraw/wms/service?SERVICE=WMS">https://maps��igh.org/taraw/wms/service?SERVICE=WMS</a></td>
<td>Web Map Service</td>
</tr>
<tr>
<td>OpenStreetMap WMS 1</td>
<td><a href="https://w3terrestrial:de.box.ruitment">https://w3terrestrial:de.box.ruitment</a></td>
<td>Web Map Service</td>
</tr>
<tr>
<td>IOW Web Map Service</td>
<td><a href="https://www.ipa.aco.peta.org/petervinosi">https://www.ipa.aco.peta.org/petervinosi</a></td>
<td>GeoNode (Web Map Service)</td>
</tr>
<tr>
<td>GeoNode Local GeoServer 1</td>
<td><a href="https://geo">https://geo</a> Gaga.aco.peta.org/petervinosi</td>
<td>GeoNode (Web Map Service)</td>
</tr>
<tr>
<td>GeoServer Web Map Service 1</td>
<td><a href="http://geo">http://geo</a> server.na.gea.org/petervinosi</td>
<td>GeoNode (Web Map Service)</td>
</tr>
<tr>
<td>GeoNode Local GeoServer 2</td>
<td><a href="https://geo">https://geo</a> server.na.gea.org/petervinosi</td>
<td>GeoNode (Web Map Service)</td>
</tr>
</tbody>
</table>

GEONODE - Landing page

Welcome

GeoNode is an open source platform for sharing geospatial data and maps.

Inizio »

Ricerca dei dati.

Cerca

Ricerca Avanzata

https://master.demo.geonode.org/

Advisory Board mid-term evaluation
GEONODE – Text Query

Advisory Board mid-term evaluation

https://geonode.org/user_features/

GEONODE

Advisory Board mid-term evaluation

https://master.demo.geonode.org/
GEONODE
The most dangerous active volcanoes in the world

https://master.demo.geonode.org/

Advisory Board mid-term evaluation

GEONODE

https://master.demo.geonode.org/

Advisory Board mid-term evaluation
Advisory Board mid-term evaluation

GEONODE

The most dangerous active volcanoes in the world

https://master.demo.geonode.org/

Advisory Board mid-term evaluation

GEONODE - user

https://docs.geonode.org/en/master/_images/add_user_button.png
In GeoNode is possible to create new groups with set of permissions which will be inherited by all the group members.

https://docs.geonode.org/en/master/admin/admin_panel/

GEONODE - Groups

https://docs.geonode.org/en/master/admin/admin_panel/
**LICENSE**

Before upload a dataset you have to answer some question:

Can I share the data set?

Is my dataset copyrighted?

Do I have the right license?

Do I need to pay fee of charge for sharing copyrighted material, or do I need only a written authorization?

---

**Inspire**


INSPIRE – an efficient way to share European spatial data!

Government authorities, businesses and citizens need to easily share and use spatial data for making the right decisions about our environment and well-being in a timely manner.


The Directive requires that common Implementing Rules (IR) are adopted in a number of specific areas (*Metadata, Data Specifications, Network Services, Data and Service Sharing and Monitoring and Reporting*) ➔ **GEONODE**

[...] measures provided for in paragraph 1 shall preclude any restrictions likely to create practical obstacles, occurring at the point of use, to the sharing of spatial data sets and services.

License - FREE?!

[...] member States may allow public authorities that supply spatial data sets and services to license them to, and/or require payment from, the public authorities or institutions and bodies of the Community that use these spatial data sets and services.

Any such charges and licenses must be fully compatible with the general aim of facilitating the sharing of spatial data sets and services between public authorities.

Where charges are made, these shall be kept to the minimum required to ensure the necessary quality and supply of spatial data sets and services together with a reasonable return on investment,

Data Analysis

Please fill the form!

https://forms.gle/sQuPJeZ3NpB8jPiE6

Thank You for Your Attention!

marco.piragnolo@unipd.it

Zoom: markgis

Telegram bot: markgis_bot
Open (Government) Data refers to the information **collected, produced or paid for** by the public bodies (also referred to as Public Sector Information) and made **freely available for re-use for any purpose**. The licence will specify the terms of use.

These principles for Open Data are described in detail in the [Open Definition](https://www.datigov.eu/).

Public sector information is information held by the public sector. The Directive on the re-use of public sector information provides a common legal framework for a European market for government-held data. It is built around the key pillars of the internal market: free flow of data, transparency and fair competition.

**It is important to note that not all of the public sector information is Open Data.**

https://www.europeandataportal.eu/en/training/what-open-data