GIS in the European Union

Jeff Peters - Esri
Esri Community

Our Relationship With Our Users Is Key

- 1,100 National Government Agencies
- 2,200 States & Regional Agencies
- 20,000 Cities & Local Governments
- 30,000+ Businesses
- 3,300 Utilities
- 5,000 Natural Resources Companies
- 7,000 Colleges & Universities
Supporting a Digital Europe
Enabling a Digital Europe - Mapping and Cadastre

INSPIRE
Lithuania
Land Consolidation
Germany

NORGiBILDER
Norway

Mapping and Cadastre
Europe Wide

UK Office for National Statistics
United Kingdom
Supporting a Digital Europe

Enabling a Digital Europe - Environment

Wind Farms

- Germany

Wind Resources

- United Kingdom

Natural Reservation

- Romania

Groundwater Contamination

- The Netherlands

Urban Environment

- Portugal
Supporting a Digital Europe

Enabling a Digital Europe – Natural Resources and Energy

- Offshore Exploration
  - United Kingdom
- Timber Modeling
  - Sweden
- Petroleum Reserves
  - North Sea
- Solar Radiation
  - Norway
- Network Management
  - Germany
Supporting a Digital Europe

Enabling a Digital Europe – Transportation and Infrastructure

- Transit Service
  - France

- Traffic Management
  - Germany

- Planning & Design
  - The Netherlands

- Vessel Tracking
  - Belgium

- Railroad Infrastructure
  - France
Supporting a Digital Europe
Enabling a Digital Europe – Security and Emergency Management

Migrant Rescue
Mediterranean Sea

Fire Response Assessment
France

Natural Disasters

Citizen Alerts
Italy, 30 October 2016

Emergency Response
Czech Republic

Marathon Viewshed
London, United Kingdom
Europe is at a Critical Juncture

Delivering a Europe that protects, empowers and defends.
GIS Is Getting Smarter with the Web

Integrating and Leveraging Many Innovations

- IoT
- European Sensor Network Architecture
- Smart Mapping
- Advanced Analytics
- Smart Devices
- Real-Time
- Galileo GPS
- Faster Computing
- Visualisation
- Copernicus
- Big Data
- 4D
- 3D
- Lidar
- Smart Mapping
- Crowdsourcing
- Faster Computing
- Web Services
- European Sensor Network Architecture

Helping You and Your Organization Work Smarter
Web GIS Integrates Real-Time Data

Providing Dynamic Information Across Europe

Copernicus - Imagery
Galileo - Location

Web GIS

Built Environment

Natural Environment

IoT

Sensors
Web GIS Embeds Advanced Analytics and Visualisation

Providing a System of Insight

Big Data GeoAnalytics

Spatial Analysis & Geoprocessing

Interactive Exploration
Web GIS Integrates Across Europe
Connecting People, Agencies, Processes, Policies and Actions

Improving Efficiency, Collaboration and Communication

System of Insight
Web GIS Supports Multiple Types of Systems

System of Record
INSPIRE European Location Framework

Galileo

System of Engagement
Helping Organizations Understand . . .

. . . And Be Aware, Alert, and Responsive
Smart GIS Connects Everyone
Creating a System of Engagement

Supporting Real-Time Awareness and Collaboration

Communities

Organizations

People

GIS Provides a Common Language for Communication
Engineered to be Open and Interoperable

Open Standards and Formats
- WMS
- GML
- SQL
- KML
- WCS
- WFS
- IFC
- OPeNDAP
- LERC
- REST
- NetCDF
- OneGeology
- CSW
- CityGML
- GeoPackage

Product Integration
- SQL Server
- Adobe Creative Cloud
- Azure
- AutoCAD
- Teradata
- MS Office
- Netezza
- SAP HANA
- IBM Cognos
- AWS
- Oracle

Open Software
- Open APIs & SDKs
- Extensible Architecture
- Embeddable Components
- Open-Source Contributions (300+)
- Open-Source Integration
- Open Data Access

People need to just .... Plug In
AUTHORITATIVE SPATIAL DATA AT YOUR FINGERTIPS

Introducing GeoHive

VIEW GALLERY  LEARN MORE
Buying Property in Ireland

Infobox
This map shows property sales prices from the Property Price Register 2015.

The layers are divided into Secondhand and New Homes, use the Toolbar at the bottom of the page to view the legend.

The Price Summary Widget is based on the current view of the map, and will update as you zoom and pan around the map.

Click on a point to get more information.

To view this information in the main GeoHive application please click here.

Secondhand Homes Price Summary Widget

<table>
<thead>
<tr>
<th>Sum of Prices</th>
<th>Minimum Price</th>
<th>Average Price</th>
<th>Maximum Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,859,208,507</td>
<td>6,000</td>
<td>377,198</td>
<td>10,000,000</td>
</tr>
</tbody>
</table>
Infobox
This map shows the Planning & Zoning information provided by the Dept of Environment, including:
- LPT Waiver Areas
- Residential Land Availability
- Residential Zoning
- Unfinished Housing Estates

You can click on the areas to view a popup with further information.

To view more information like this, go to the main GeoHive application [here](https://www.geohive.com/).
Web GIS Enables New Types of Collaboration
Connecting Individuals, Organisations and Communities

... Creating a Nervous System for Europe
Expanding Their GIS to Support Everyone

Is Already Implementing a Community GIS
Live Site

- http://geohub.lacity.org
Summary: Vision for European Agencies

Network of European Agencies

Inside
Commission and Agency-wide Collaboration

Outside
Public Engagement

- EEA
- AGRI
- CLIMA
- ENER
- ESTAT

Public Hub

EU Hub

Partners

- National Governments
- State Agencies
- Federal Governments
- International Organizations

European Citizens
Tech Hubs

Education

Business

Municipalities

International Organisations

More…

- Open Data
- Living Atlas
- Story Mapping
- Dashboards
- Applications
- APIs
- Initiatives

More…

- HOME, MARE, JRC, DIGIT, GROW
- EEA, EASA, EMSA, Satcen