Infrastructure for Spatial Information in the European Community

Initial Operating Capability

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The INSPIRE Community Geoportal

EC INSPIRE GEOPORTAL TEAM

European Commission
Joint Research Centre
Institute for Environment and Sustainability
Spatial Data Infrastructures Unit
Initial Operating Capability

• “Initial Operating Capability” means the ability of a Network Service to provide full functionality without guaranteeing
  – quality of service in conformity with the rules set out in Regulation, or
  – access to the service for all users through the INSPIRE geo-portal

• Not later than 18 months after the date of entry into force of the network services Regulation, Member States shall provide the Discovery and View Services with initial operating capability.
Initial Operating Capability Task Force

- **Purpose**
  - to help and support the implementation of INSPIRE in the Member States

- **Scope**
  - architectural aspects and implementation of Network Services to ensure interoperability with the INSPIRE geoportal and among Member States

- **Focus on**
  - implementation of the INSPIRE Discovery and View Services.
Initial Operating Capability Task Force

- Key Objectives
  - Best Practices and preliminary implementations of INSPIRE services in the Member States
  - Help promote exchange of experiences, according to National policies and the INSPIRE Directive and Regulations.
Initial Operating Capability Task Force

- Composition
  - representatives, from all Member States, responsible for the Architecture design and the service implementation of the National SDIs.
- The European Commission JRC is in charge of the Task Force.
- First meeting:
  - INSPIRE Architecture workshop, Rotterdam 18 June 2009
Welcome to INSPIRE geoportal

The INSPIRE geoportal provides the means to search for spatial data sets and spatial data services, and subject to access restrictions, view and download spatial data sets from the EU Member States within the framework of the Infrastructure for Spatial Information in the European Community (INSPIRE). INSPIRE aims at making available relevant, harmonised and quality geographic information to support formulation, implementation, monitoring and evaluation of policies and new services which have a direct or indirect impact on the environment.

What does it include

This version is a prototype INSPIRE geoportal and allows for discovery and viewing of spatial data sets and services. Its aim is to identify issues related to its implementation and accessing distributed INSPIRE services, to help towards the development of the operational geoportal.

The prototype INSPIRE geoportal currently accesses a limited number of discovery and view services and therefore only a few metadata for spatial data sets and services may be found and viewed. These will increase as more services become available from the EU Member States.

To ensure that the INSPIRE geoportal has a full functional access to the Discovery and View services testing is done in close cooperation with the Member States. This allows performing any necessary modifications or adjustments to improve interoperability and the overall architecture performance and in general facilitate the way towards the full operating capability.

We depend on your feedback to help us make the geoportal better. If you have questions or comments about the site, please contact us.

http://www.inspire-geoportal.eu
Requirements (1)

- Required by the INSPIRE Directive
  - Provide access to the Member States INSPIRE services
- Aims to provide an operational platform to satisfy the requirements of the directive and IR
- Development and operation under EC responsibility
- INSPIRE geoportal dependent on the IR development
Requirements (2)

- **discovery services** - search for spatial data sets and spatial data services on the basis of the content of corresponding metadata, display the metadata content;

- **view services** - as a minimum, display, navigate, zoom in/out, pan, or overlay spatial data sets and display legend information and any relevant content of metadata;

- **download services**, enabling copies of complete spatial data sets, or of parts of such sets, to be downloaded;

- **transformation services**, enabling spatial data sets to be transformed;

- “**invoke spatial data services**”, enabling data services to be invoked.
Challenges of the INSPIRE Geoportal

Multilinguality
The European Union comprises 23 official languages. This has significant impact on how discovery of data and services is performed.

Distribution
A European SDI is formed by regional and local SDIs that have their own Metadata models, Catalogues, etc.

Diversity
Information is represented in various data models and coordinate reference systems.
Geoportal Prototype

Scope

- interoperability assessment through use of INSPIRE Network Services
- establish an architecture for the INSPIRE geoportal in terms of functional requirements of the components and their interactions and the experience and lessons learned
  - Drive the specifications for the operational geoportal
- evaluate fitness for purpose of standards & specifications;
- assess the performance of different search scenarios;
- provide feedback to standardisation organisations
Progress

- Current focus on
  - INSPIRE Discovery & View services, metadata
  - Tools (metadata editor, metadata validation, …)
- Technical aspects addressed:
  - Access to distributed INSPIRE Network Services
    - Heterogeneities (e.g. interface, information encoding)
  - Performance, Quality of service
- Updated prototype geoportal available 11-6-2009
- Discovery & view web clients based on open source S/W and internal development
  - Support draft Technical guidelines (OGC CSW ISO AP, ISO 19128)
Geoportal architecture

Geoportal Web based applications
(search client, map client, MD editor, …)

Geoportal components

GeoPortal services
(discovery, view, download, MD editor, …)

Network Services Proxy

Data representation

Statistics, ranking, sorting

Multilingual

Data Mining

GEMET,
INSPIRE Data Theme,
translators

Network Services
Member State 1

Network Services
Member State 2

Other INSPIRE
Network Services
Search results presentation

Geographic extent

Title, abstract,
Link to full metadata
Visualize data

Statistics on
search results with
filtering options
Search client

Search and Browse criteria
- Bounding box, topic categories, resource type, date, free text

Presentation preferences:
- Default behaviour based on result ranking, sorting based on MD elements (e.g. title)
Geoportal Viewer
Geoportal Viewer
Metadata Editor

- compliant with COMMISSION REGULATION (EC) No 1205/2008 of 3 December 2008,
- Follows INSPIRE MD Technical Guidelines based on ISO standards
- proof of concept
Future development

- Establish Interoperability arrangements in the context of Initial Operating Capability
- Multilingualism
  - GEMET,
  - In collaboration with DG Translation explore machine translation systems
- Download Services
- Expand registry with additional registers
  - Services
  - Code lists
Web Site: http://www.inspire-geoportal.eu

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