

JUDE 2017

# VIII Jornadas Ibéricas de Infraestructuras de Datos Espaciales

Lisboa | 15 - 17 noviembre 2017

MIG-T  
30-31 de octubre



INSTITUTO  
GEOGRÁFICO  
NACIONAL



GOBIERNO  
DE ESPAÑA

MINISTERIO  
DE FOMENTO

## 1. Test de validación y conformidad

- Release 1.0
- Mas de 700 test en las últimas semanas
- Actualmente tiene algunas limitaciones de rendimiento
- Se está analizando posible despliegue en la nube
- Modelo centralizado aunque también podría descentralizarse en los MMSS para incluir funcionalidad propia de cada país



## 2. Geoportal INSPIRE

- Amplio portal de datos multitemático que no satisface los requisitos de usuario.
- Dificultades para encontrar conjuntos de datos nacionales relacionados con diversos tipos de informes ambientales.
- Deficiencias en las búsquedas por varios dominios / informes ambientales
- La búsqueda por palabras clave de los MD no se usa en absoluto o no se usan de forma consistente / armonizada.



### 3. Nuevo visualizador temático

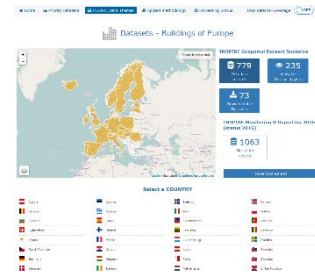
#### Objetivos:

- Desarrollar un conjunto de "Vistas temáticas" para facilitar a los usuarios la visualización y descarga de conjuntos de datos
- Simplificar la forma en que los usuarios pueden interactuar con el contenido de Geoportal
- Proporcionar una herramienta para facilitar el acceso a los conjuntos de datos prioritarios de los informes medioambientales así como a los datos de los anexos de INSPIRE



### 3. Nuevo visualizador temático

- Nueva interface de usuario
- Búsqueda por filtros espaciales (EU y nacional)
- Búsqueda por filtros temáticos: datos prioritarios y temas INSPIRE
- Basado en SOLR Lucene y palabras clave de MD



### 3. Nuevo visualizador temático

INSPIRE  
Geoportal Thematic Views

European Commission → INSPIRE Geoportal Thematic Views > Priority Datasets

Home | Priority Datasets | INSPIRE Data Themes | Applied methodology | Harvesting Status

## Priority Datasets

Explore Member States' priority datasets for eReporting related to the following domains

**Air & Noise**  
Covers ambient air quality and cleaner air for Europe, industrial emissions ...

**Industry**  
Covers industrial emissions and industrial accidents.

**Waste**  
Landfill of waste, waste from extractive industries, soil, banning of exports of metallic mercury ...

**Nature & Biodiversity**  
Covers conservation of natural habitats and wild fauna and flora, wild birds.

**Water**  
Water Framework Directives, Urban waste water, bathing water, ...

**Marine**  
Covers marine environmental policy.

For more information please visit [Main page for the MIWP action 2016.5 "Priority list of datasets for e-Reporting"](#)

Geoportal Thematic Views | Powered by: INSPIRE Geoportal

INSPIRE	NEWS & EVENTS	INSPIRE Tools	Priority Dataset
INSPIRE Web Site	News	Tools	Home
INSPIRE Legislation	Events	Validator	Priority Datasets
INSPIRE Library	Conferences	Metadata editor	INSPIRE Themes
INSPIRE Themes	RSS News	Registry	Applied methodology
Thematic clusters		Data Specification toolkit	Harvesting Status

About | Contact | Legal notice

INSPIRE  
Geoportal Thematic Views

European Commission → Geoportal Thematic Views > INSPIRE Themes

Home | Priority Datasets | INSPIRE Data Themes | Applied methodology | Harvesting Status

## INSPIRE Data Themes

Explore all Member State data according to the INSPIRE Annex themes

### Annex I

- Addresses
- Administrative Units
- Cadastral Parcels
- Geographical grid systems
- Geographical names
- Hydrography
- Protected Sites
- Coordinate reference systems
- Transport networks

### Annex II

- Education
- Geology
- Land Cover
- Orthomography

### Annex III

- Atmospheric Conditions
- Agricultural and Aquaculture facilities
- Area Management Restriction Regulation Zones and Reporting units
- Bio-geographical Regions
- Buildings
- Environmental Monitoring Facilities
- Energy Resources
- Habitats and Biotopes
- Human Health and Safety
- Land Use
- Meteorological geographical features
- Mineral Resources
- Natural Risk Zones
- Ornithogeographic Geographical Features
- Population Distribution - Demography
- Production and Industrial facilities
- Species Distribution
- Soil
- Sea Regions
- Statistical Units
- Utility and Governmental Services

Geoportal Thematic Views | Powered by: INSPIRE Geoportal

INSPIRE	NEWS & EVENTS	INSPIRE Tools	Priority Dataset
INSPIRE Web Site	News	Tools	Home
INSPIRE Legislation	Events	Validator	Priority Datasets
INSPIRE Library	Conferences	Metadata editor	INSPIRE Themes
INSPIRE Themes	RSS News	Registry	Applied methodology
Thematic clusters		Data Specification toolkit	Harvesting Status

About | Contact | Legal notice



# 3. Nuevo visualizador temático

Birds and Habitat Directives related Datasets (Natura 2000).

**1121**  
Metadata records

**1603**  
Viewable Dataset Layers

**48**  
Downloadable Datasets

**Select a COUNTRY**

[Download Report](#)

Birds and Habitat Directives related Datasets (Natura 2000) for Germany

SELECT A COUNTRY
Metadata records **65**
Viewable Dataset Layers **14**
Downloadable Datasets **11**

**SELECT A COUNTRY**

- 
- 
- 
- 
- 
- 
- 
- 
- 
- 
- 
- 
- 
- 
- 
- 
- 
- 
- 
- 
- 
- 
- 
- 
- 
- 
- 
- 
-

Search:

Metadata record title	Source
EG-Vogelschutzgebiete (1:25.000)	
EJ-Vogelschutzgebiete (Landkreis Göttingen)	
EJ-Vogelschutzgebiete in Niedersachsen (VSG)	
Europäische Vogelschutzgebiete	
FFH-Gebiet	
FFH-Gebiete (1-5.000)	
FFH-Gebiete (Landkreis Göttingen)	
FFH-Gebiete des Saarlandes	
Fauna-Flora-Habitat (FFH)-Gebiete des Landes Brandenburg	
Fauna-Flora-Habitat Gebiete	
Fauna-Flora-Habitat-Gebiete	
Fauna-Flora-Habitat-Gebiete von Rheinland-Pfalz	
Flora-Fauna-Habitats	
HH (INSPIRE) AI 9 PS Schutzgebiete	
Kartenlayer Vogelschutzgebiete NRW	
Kernzonen der Biosphäre Biesgau	
LAPRO2009 - Flächen mit hoher Bedeutung	
LAPRO2009 - Flächen mit mittlerer Bedeutung	
LAPRO2009 - Flächen mit sehr hoher Bedeutung	
Naturschutzgebiete (NSG)	

Showing 1 to 20 of 65 entries (duplicates have been removed)

Previous 1 2 3 4 Next

**Download Report**

**FILTER MORE**

Identified themes:

- 
- 
- 
- 
- 
- 
- All Themes

**Metadata keywords#**

92/443  
biosphere reserve  
biotope  
flächennaturdenkmal  
freistaat sachsen  
inspireidentifiziert  
integral natural reserve  
kernzone landscape  
landscape protection area  
landschafteschutzgebiete  
lebensraumtypen  
national park  
national reserve  
natura 2000  
natural park  
nature reserve  
naturparke  
protected area

**Text Data mining #**

Warning! Text Data mining coming soon.







# 3. Nuevo visualizador temático

## Datasets - Buildings of Europe



### INSPIRE Geoportals Dataset Statistics

**779** Metadata records

**235** Viewable Dataset Layers

**73** Downloadable Datasets

### INSPIRE Monitoring & Reporting 2016 (status 2016)

**1063** Metadata records

Download Report

### Select a COUNTRY

- |                |         |               |                |
|----------------|---------|---------------|----------------|
| Austria        | Estonia | Iceland       | Norway         |
| Belgium        | Greece  | Italy         | Poland         |
| Bulgaria       | Spain   | Liechtenstein | Portugal       |
| Switzerland    | Finland | Lithuania     | Romania        |
| Cyprus         | France  | Luxembourg    | Sweden         |
| Czech Republic | Croatia | Latvia        | Slovenia       |
| Germany        | Hungary | Malta         | Slovakia       |
| Denmark        | Ireland | Netherlands   | United Kingdom |

## Datasets - Buildings of Europe



### INSPIRE Geoportals Dataset Statistics

**66** Metadata records

**72** Viewable Dataset Layers

**1** Downloadable Datasets

Download Report



# 3. Nuevo visualizador temático

Home | Priority Datasets | INSPIRE Data Themes | Applied methodology | **Harvesting Status**

### Harvesting Status

Pull Operation status Per Country/Discovery Service.

Show  entries Search:

Discovery Service Country	Latest available Member State Discovery Service Report	Pull Operation Start Date	Pull Operation Frequency	Spatial Data Coverage Information	Spatial Data Schema Validation Information
BG Учрени за опрешане	Report %	08 August 2017, 22:01:23	Daily	Available	Available
AT INSPIRE Geo-Portal Kartographie BMLFUW/Österreich (Bundesministerium für Land- und Forstwirtschaft, Umwelt und Wasserwirtschaft)	Report %	08 August 2017, 22:21:17	Daily	Available	Available
BE CSW service of the Belgian federal government (National geographic Institute/DG-INSPIRE)	Report %	07 August 2017, 18:21:37	Daily	Available	Available
FR GeoCatalogue de la Région de Bruxelles-Capitale (GRB/CIBG)	Report %	04 August 2017, 20:30:29	Weekly	Available	Available
DE Geopunkt-Metadatenrechner zwickelnet (AGIV)	Report %	05 August 2017, 01:21:02	Weekly	Available	Available
BE Metawal - Catalogue pour l'information géographique de Wallonie (Service Public de Wallonie)	Report %	08 August 2017, 23:01:38	Daily	Available	Available
CH geocat.ch	Report %	08 August 2017, 08:30:29	Daily	Available	Available
CY This is a geoportals exposing INSPIRE Discovery service metadata capabilities (organization name)	Report %	08 August 2017, 23:21:37	Daily	Available	Available
CZ Katalogy metadata: ČR - INSPIRE (CENIA, česká informační agentura životního prostředí)	Report %	08 August 2017, 19:11:08	Daily	Available	Available
DE Geodatenkatalog.de	Report %	15 July 2017, 08:30:07	Weekly	Not Available	Not Available

Showing 1 to 10 of 36 entries (duplicates have been removed)

Previous     Next

Home | Priority Datasets | INSPIRE Data Themes | Applied methodology | **Harvesting Status**

### Thematic Geoportals data filtering

Birds & Habitats Directives (Natura 2000) datasets example

**Description of the approach taken:**

**Selection of terms to be used**

- Full title of the Birds and Habitats Directives as written in EUR-LEX
- Shorter version of the title from the date of the directive on
- The different identifiers that refer to the Directive (ColoX, ELL, OJ) as written in EUR-LEX
- Colloquial names referring to the Birds and Habitats Directives as written in Wikipedia articles
- Natura 2000 term
- Type of protected sites or designations defined by it (SPA, SAC, pSCI, SCI).

**Translation of terms**

- Full title of the Birds and Habitats Directives in the EU 23 official languages
- Natura 2000 term variants (with space, without space, etc.) and in different languages and scripts
- Available translations of the colloquial names referring to the Birds and Habitats Directives as written in Wikipedia articles extracted from Wikidata (ex. <https://www.wikidata.org/wiki/Q5637838>)
- Available translations of the type of protected sites or designations defined by Natura 2000 both of complete name and the abbreviation (SPA, SAC, pSCI, SCI).

**Integration with the Geoportals search engine**

The translated terms (synonyms and acronyms) were used to create a final set of queries to thematically filter the Geoportals metadata content. The results are displayed in the Thematic View module.

### Spatial Geoportals data filtering

**Main purpose**

The main objective of this newly developed filter is to separate datasets that cover whole countries (national) from the rest (regional, local etc.) of the datasets provided by Member States in the INSPIRE Geoportals.

**Description of the methodology**

The filter uses the Metadata records (bounding boxes) that spatially compare with reference country geographic extents (also in a form of bounding boxes).

**Reference Data processing**

- The reference bounding boxes per country were taken from the Eurostat GISCO site - <http://ec.europa.eu/eurostat/web/gisco/overview>.
- The geodata collection of Administrative units / Statistical units: NUTS 2013 - 1:10 Million scale was selected - [http://ec.europa.eu/eurostat/cache/GISCO/gisdataref/NUTS\\_2013\\_10M\\_S1.zip](http://ec.europa.eu/eurostat/cache/GISCO/gisdataref/NUTS_2013_10M_S1.zip)
- Series of transformations were executed for:
  - match the CRS as WGS 1984, EPSG:4326;
  - create a bounding box rectangle using the country shapefile geometry
  - reduce the resolution for some countries (IT, SE, FI) to fix the issues encountered
  - rotate the coordinates from the bounding box rectangles

**Filter algorithm execution**

**The algorithm executes the workflow steps:**

- Check & validate the input parameters;
- For each of the user provided bounding boxes:
  - the country code is valid (two-letter, and match with the internal database)
  - the provided bounding boxes are valid and respect the required syntax and numeric format
  - the optional tolerance is valid (range in [0,0, 1,0])
- Evaluate ratio results (between 0 and the tolerance) against the input threshold, or use the default one (0,2, corresponding to a tolerance of 20%), for each case mentioned below:
  - Estimate the area coverage ratio algorithm with the evaluation of the geometry inaccuracy.
  - Run the area coverage ratio against these cases:
    - Case 1: the user provided box is contained inside the country reference box
    - Case 2: the user provided box contains inside the country reference box
- If at least one of the cases is valid (so the ratio is under the defined threshold) then record the coverage type associated with the reference box, and continue on the next comparison otherwise stop processing and return "unknown" as result.

### 3. Nuevo visualizador temático

- Disponible en Diciembre 2017
- Modular
- Oculta la complejidad de los servicios en red
- Calidad vs cantidad

The screenshot shows the homepage of the INSPIRE Geoportals Thematic Views. At the top, there is a navigation bar with the European Commission logo, the INSPIRE logo, and a language selector set to English (en). Below the navigation bar, the main heading is "Geoportals Thematic Views" with a subtitle "Simplify the use & filter geoportals data by topics and national coverage." The page is divided into several sections: "Be Familiar With Our Applications" which highlights "Priority Datasets" and "INSPIRE Data Themes"; a section explaining that the presented results represent a means to get as close as possible to the requirements of selected use cases; and a footer section with a grid of links for "INSPIRE", "NEWS & EVENTS", "INSPIRE Tools", and "Priority Dataset".

European Commission | INSPIRE | About | Contact | Legal notice | English (en)

## Geoportals Thematic Views

Simplify the use & filter geoportals data by topics and national coverage.

The Geoportals Thematic views represent the new direction of simplifying the use of the INSPIRE Geoportals - single point of access to Member States' data and services - by applying advanced thematic and spatial filtering.

**Be Familiar With Our Applications**

- 1** **Priority Datasets**  
Explore Member States' priority datasets for eReporting in the INSPIRE Geoportals.
- 2**
- 3**

**INSPIRE Data Themes**  
Explore all Member State data according to the INSPIRE Annex themes.

The presented results of both thematic and spatial coverage filtering represent a means to get as close as possible to the requirements of selected use cases. They should, therefore, *only be interpreted as an indication*.  
The number of Geoportals Thematic views might increase in the future reflecting the user demand received.

Geoportals Thematic Views | Powered by: INSPIRE Geoportals

INSPIRE	NEWS & EVENTS	INSPIRE Tools	Priority Dataset
<a href="#">INSPIRE Web Site</a> <a href="#">INSPIRE Legislation</a> <a href="#">INSPIRE Library</a> <a href="#">INSPIRE Themes Thematic clusters</a>	<a href="#">News</a> <a href="#">Events</a> <a href="#">Conferences</a> <a href="#">RSS News</a>	<a href="#">Tools</a> <a href="#">Validator</a> <a href="#">Metadata editor</a> <a href="#">Registry</a> <a href="#">Data Specification toolkit</a>	<a href="#">Home</a> <a href="#">Priority Datasets</a> <a href="#">INSPIRE Themes</a> <a href="#">Applied methodology</a> <a href="#">Harvesting Status</a>

About | Contact | Legal notice |



## 4. Fitness for purpose

- Confeccionando nuevas guías para hacer INSPIRE mas comprensible- previsto 2018
- Guía de alto nivel para todo tipo de usuarios describiendo las obligaciones mínimas, beneficios, valor añadido....
- Posible título - "Uso de datos espaciales para una mejor política ambiental: los beneficios de la Directiva INSPIRE "



## 5. Mejor soporte de herramientas GIS

- La mayor parte de las clientes GIS consumen y escriben estructuras planas de datos
- Los datos INSPIRE de acuerdo con los esquemas actuales se pueden descargar y visualizar pero su uso para operaciones GIS sencillas (joins, superposiciones visuales, búsqueda espacial, etc.) es difícil en clientes GIS estándar.
- Se está trabajando con algunos proveedores para mejorar el soporte GML



## 6. Codificación de esquemas alternativa

- Los esquemas INSPIRE son complejos
- Muchas aplicaciones y herramientas GIS existentes tienen dificultades para consumir datos según estos esquemas.
- Posibilidad de utilizar codificaciones alternativas para el intercambio de datos básicos y la visualización directa en herramientas GIS estándar.
- De acuerdo con el **art. 7 de las IR** sobre interoperabilidad de datos, *“se pueden usar codificaciones alternativas siempre que estén publicadas las reglas de transformación”*



## 6. Codificación de esquemas alternativa

- Existen ya propuestas para codificaciones alternativas: principalmente para esquemas XML simplificados pero también para vocabularios RDF o estructuras de geodatabase ESRI.
- Las codificaciones alternativas también podrían basarse en otros estándares como JSON o GeoPackage.



# Muchas Gracias

[elromero@cnig.es](mailto:elromero@cnig.es)

[msgomez@mapama.es](mailto:msgomez@mapama.es)

