



# Updates on central INSPIRE components – Geoportals updates

**JRC INSPIRE Team**

*65th MIG-T meeting – April 15/16, 2021*

# Sustainability of the INSPIRE Geoportal

- The INSPIRE Geoportal (backend) is a highly **customized** system:
  - code is often **difficult to understand**, **hard to maintain/extend**
  - cannot be integrated with other existing tools/modules
  - overall maintenance & operation is **expensive**
- Sustainability scenario:
  - future role as **INSPIRE monitoring component** within Action 2.4 of the INSPIRE Maintenance and Implementation Work Programme (MIWP) 2021-2024
  - limited addition of new features (except for an API and related OpenAPI docs)
  - migration to a **cloud environment**, backend based on GeoNetwork
  - helpdesk moved to GitHub & integrated with the other INSPIRE helpdesks

# Why GeoNetwork?

- GeoNetwork is a **reference catalogue application** within INSPIRE:
  - used by 24 Member States & EFTA countries
  - used by the EEA and the European Commission (e.g. ESTAT)
- GeoNetwork is **open source** (under the GPL) & is an **OSGeo** project
  - code maturity, large base of users & developers
  - current stable version is v. 4.0.3
    - main improvement (funded by the EEA) is on **search** – Elasticsearch replacing home-made search based on Lucene
- What we did so far:
  - spring 2020: first (positive) assessment
  - June 2020: GeoNetwork user meeting
  - summer/autumn 2020: assessment of the (future) v.4 + meeting with GeoNetwork developers

# Feasibility assessment on a possible migration of the Geoportal to GeoNetwork

- Performed in April/May 2020, includes:
  - requirements of the INSPIRE Geoportal
  - gap analysis between the INSPIRE Geoportal and GeoNetwork
  - proposal of an alternative GeoNetwork-based setup of the Geoportal + demo
- Conclusions:
  - results are positive and suggest that integration is possible
  - some limitations emerged, e.g. impossibility to use OR and NOT conditions in OGC filters
  - some doubts remain about the performance in managing big catalogues
  - further test/work is necessary before the Geoportal migration

# Re-engineering the Geoportal backend

- Following the feasibility assessment and the tests done during the last year, a new collaboration started with the GeoNetwork developers.
- Objective: to build, test, operate and maintain a **re-engineered backend for the INSPIRE Geoportal** through the development of a set of improvements to GeoNetwork (including the development of a harvester module).

# New Geoportal backend: milestones

- Release of a prototype of the Geoportal backend based on GeoNetwork foreseen by the end of the summer.
  - The prototype will include:
    - harvesting dashboard (aka **harvest console**) protected through EU Login
    - **harvester core**, with custom configurable options and capabilities:
      - **complete coverage** over the harvest of 35 endpoints currently available in the INSPIRE Geoportal, comprising the **incremental harvesting feature**
      - **data service linkage assessment**, covering the current approach as well as the new simplified approach (WIP)
      - **automated translation** of metadata fields through EC DGTranslation services
      - **OGC Filter** full support

# New Geoportal backend: milestones

- Rollout and operationalisation of the system:
  - the prototype will be moved in production and will:
    - be deployed and run in a **cloud environment**
    - be fine tuned for the **calculation of indicators** for the yearly INSPIRE Monitoring and Reporting, including the approach (WIP) to distinguish as-is/harmonised datasets
- Provision of **training** to the Geoportal contact points from Member States/EFTA countries.

# Geoportal Frontend

- New UI based on the EC web guidelines
- Introducing the new **High-Value Data Sets** sections
- The new sections are still being defined (they will be aligned to the related regulation)

The screenshot displays the INSPIRE Geoportal Frontend interface. At the top, the European Commission logo and the text 'European Commission' are visible on the left, and a language selector for 'English' is on the right. Below the header, a breadcrumb trail reads 'European Commission > INSPIRE > INSPIRE Geoportal > HOME'. The main heading is 'INSPIRE GEOPORTAL' with the subtext 'ENHANCING ACCESS TO EUROPEAN SPATIAL DATA'. A navigation menu includes 'Home', 'High-Value Data Sets', 'Thematic Data', 'Harvesting status', and 'Find out more about'. The main content area is titled 'High-Value Data Sets' and contains the text: 'The application provides an overview and access to geospatial high-value datasets and other core data (including priority data sets for eReporting)'. Below this, a prompt says 'Please select a thematic category:'. Three categories are presented in cards: 1. 'Geospatial High-Value Data Sets' with a location pin icon and a paragraph: 'It is a long established fact that a reader will be distracted by the readable content of a page when looking at its layout.' with a 'Show more Data Sets >' button. 2. 'Earth Observation and Environment Data Sets' with a globe icon and a paragraph: 'The application displays the availability and provides access to the selected priority data sets used for environmental reporting.' with a 'Show more Data Sets >' button. 3. 'Mobility' with a car icon and a paragraph: 'It is a long established fact that a reader will be distracted by the readable content of a page when looking at its layout.' with a 'Show more Data Sets >' button. The footer at the bottom right features the European Commission logo and the text 'European Commission'.



# Geoportal Frontend

## Agricultural parcels

Spatial data inserted in the systems and subsystems as defined in Art. 68 of Regulation (EU) No 1306/2013.

The Integrated Administration and Control System (IACS) consists of computerised databases of the subsystems. The Identification System for Agricultural Parcels (better known as LPIS - Land Parcel Identification System) and the Aid Applications and Payments Claims subsystems of IACS contain the spatial data components.



GSAA

Geospatial aid application as part of the Aid applications subsystem of IACS, defined by Art. 68 of Regulation 1306/2013.

5 | 3 | 3



LPIS

Land Parcel Identification System, a subsystem of Integrated Administration and Control System (IACS) as defined by Art. 68 of Regulation 1306/2013.

32 | 23 | 20

### Other Core reference data:



Addresses

324 | 45 | 125



Administrative units

829 | 91 | 243



Cadastral parcels

7956 | 78 | 56



Geographical names

1218 | 72 | 88



Buildings

867 | 151 | 141

## High-Value Data Sets

The application provides an overview and access to geospatial high-value datasets and other core data (including priority data sets for eReporting).

Please select a thematic category:



Geospatial High-Value Data Sets

It is a long established fact that a reader will be distracted by the readable content of a page when looking at its layout.

Show less Data Set >



Earth Observation and Environment Data Sets

The application displays the availability and provides access to the selected priority data sets used for environmental reporting.

See more Data Set >



Mobility

It is a long established fact that a reader will be distracted by the readable content of a page when looking at its layout.

See more Data Set >

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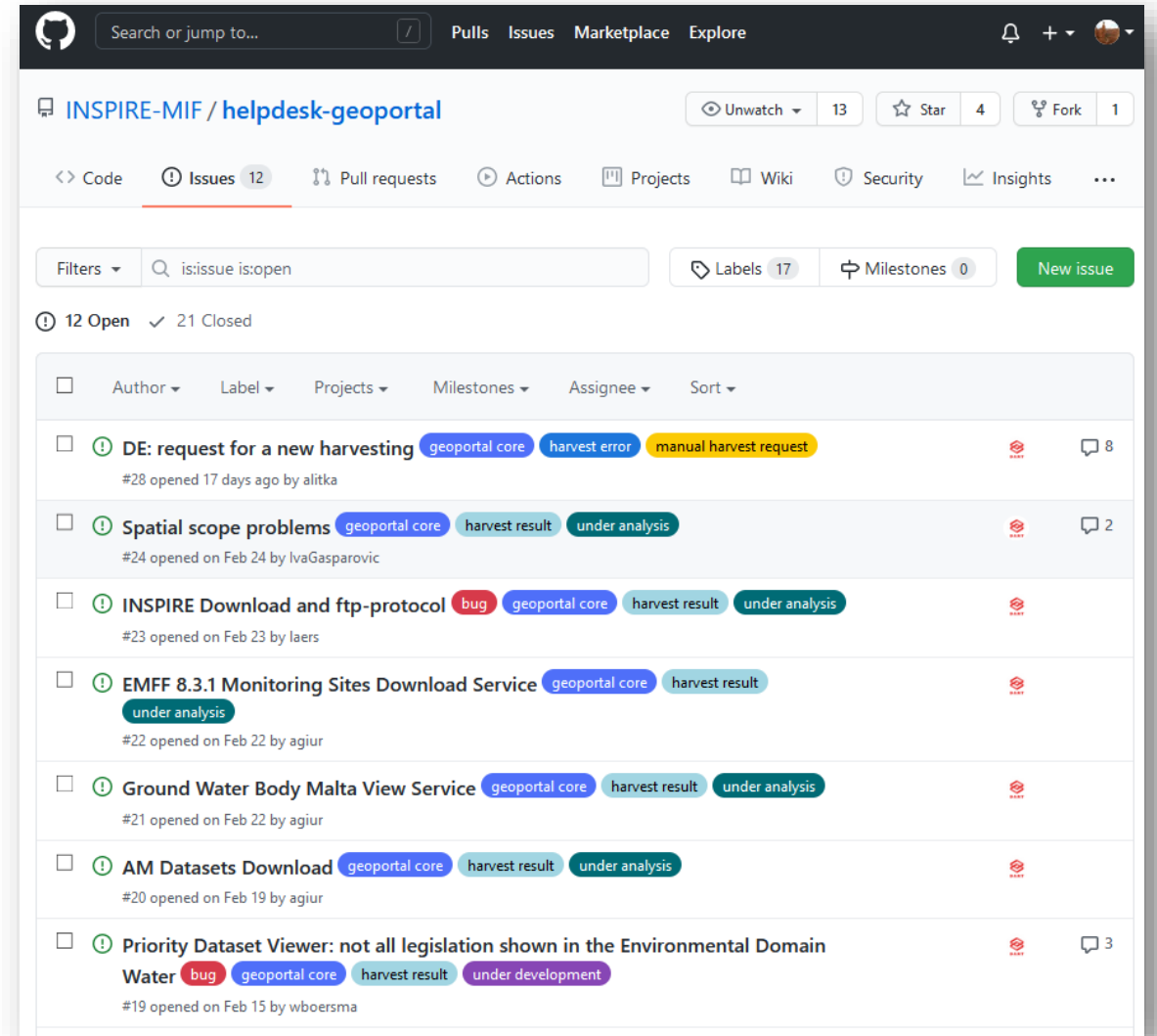


Buildings

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# Geoportal helpdesk

- The new GitHub-based helpdesk **successfully replaced** the old one.
- More **user friendly** and collaborative tool.
- New code of conduct has been introduced.



The screenshot displays the GitHub interface for the repository 'INSPIRE-MIF / helpdesk-geoportal'. The top navigation bar includes 'Search or jump to...', 'Pulls', 'Issues', 'Marketplace', and 'Explore'. The repository name is shown as 'INSPIRE-MIF / helpdesk-geoportal' with 13 Unwatch, 4 Stars, and 1 Fork. The 'Issues' tab is selected, showing 12 open issues and 21 closed issues. The search filter is 'is:issue is:open'. The issues are listed with their titles, labels, and creation dates:

Issue Title	Labels	Created	Comments
DE: request for a new harvesting	geoportal core, harvest error, manual harvest request	#28 opened 17 days ago by alitka	8
Spatial scope problems	geoportal core, harvest result, under analysis	#24 opened on Feb 24 by IvaGasparovic	2
INSPIRE Download and ftp-protocol	bug, geoportal core, harvest result, under analysis	#23 opened on Feb 23 by laers	
EMFF 8.3.1 Monitoring Sites Download Service	geoportal core, harvest result, under analysis	#22 opened on Feb 22 by agiur	
Ground Water Body Malta View Service	geoportal core, harvest result, under analysis	#21 opened on Feb 22 by agiur	
AM Datasets Download	geoportal core, harvest result, under analysis	#20 opened on Feb 19 by agiur	
Priority Dataset Viewer: not all legislation shown in the Environmental Domain Water	bug, geoportal core, harvest result, under development	#19 opened on Feb 15 by wboersma	3

# Thank you!



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