



INSPIRE

Infrastructure for Spatial Information in Europe

MIWP Action progress and review – For information

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Description	Status reports from the following MIWP actions, <ul style="list-style-type: none">• 2016.4 Theme specific issues• 2019.2 Improving data availability – good practices
actions:	MIG to: <ul style="list-style-type: none">• Take note, provide feedback on the document and discuss at the MIG.

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1 2016.4 Theme specific issues – INSPIRE Community Forum

<https://inspire.ec.europa.eu/forum/homepage>

The main objective of this action, led by DG JRC, is to support MS with the implementation of INSPIRE by providing an on-line platform to share, find, propose and discuss issues encountered during the implementation and use of INSPIRE as well as in adaptation/re-use of INSPIRE infrastructure for other domains/purposes. The Forum activity is supported/supervised by Forum facilitators that are in close contact with MIG-T liaisons.

The current INSPIRE Community Forum Facilitators and MIG-T liaisons are:

Thematic domain	Facilitator	MIG-T liaison
1. Earth Science		Carlo Cipolloni
2. Land Cover and Land Use	Lena HALLIN-PIHLATIE	Lars Erik Storgaard
3. Elevation, Orthoimagery, Reference Systems, Geographical Grids	Jordi ESCRIU	Markus Seifert
4. Environmental Monitoring and Observations	Katharina SCHLEIDT	Jose Miguel Rubio Iglesias
5. Facilities, Utilities and Public Services	Keiran MILLARD	
6. Topographic and Cadastral Reference Data	Anja HOPFSTOCK	Markus Jobst
7. Marine and Atmosphere	Angel LOPEZ ALOS	Anders Ryden
8. Biodiversity and Management Areas	Stefania MORRONE	Darja Lihteneger
9. Statistics and Human health	Mirosław MIGACZ	Jari Reini
Cross cutting domains		
10. Software & tools	Jordi ESCRIU	Michael Lutz
11. INSPIRE & Environmental Policy	Stefania MORRONE	Joeri Robbrecht

Since June 2019 the main task on the Forum was to re-activate the activity after the unfortunate gap (1st half of the year 2019). The restart was also supported by the new structure of the Forum including e.g.: the new name ‘Community Forum’, replacing the former ‘Thematic clusters’; and the introduction of two new cross-cutting domains, i.e. ‘Software & tools’ and ‘INSPIRE and Environmental Policy’. In order to ease the use of the Forum platform for users a new ‘Help’ section was prepared, which covers:

- Frequently asked questions (FAQs)
- How to setup personal notifications (by group, individual tags)
- How to correctly setup privacy options (GDPR)

INSPIRE Helsinki 2019 Technical Conference (October 22-24)

The INSPIRE Helsinki 2019 technical event was selected as a milestone to re-start the Forum activity. The new collaboration platform was presented during a dedicated session including a short highlight from each of the Forum domain/discussion group by the respective facilitators. After the event and throughout the Fall 2019 the Forum activity was again getting to the level that it used to had, resulting in new discussion topics, replies, registered users and in general increased use of the Forum by INSPIRE stakeholders.

Monitoring of the use of the platform TC Activity – statistics of use (10.3. 2020)*

- Number of registered users: 1040
- Discussion topics: 762
- Discussion replies: 2218
- Files: 316
- News: 183
- Pages: 204
- Dedicated topic summarizing pages: 41

2016.4 Meetings:

The following teleconferences (3x) and one face to face meeting with the facilitators and MIG-T liaisons happened since June 2019:

- 30.7.2019 - teleconference
- 23.10.2019 Helsinki: Face to face meeting
- 12.12 2019 - teleconference
- Upcoming teleconference: 27.3. 2020 – 10:00-12:00

After each meeting the minutes are prepared by the group Chair and shared by e-mail.

2019 Activity Reports:

All facilitators, under the expert contract (7x), with help of MIG-T liaisons delivered 2019 Activity reports. The common structure of the report covers:

- 1) **State of play in the thematic domain** (Summary of the thematic domain activity related to the implementation and use of INSPIRE)
 - 1.1. Overview / list of relevant EU Projects/technology/SW activities (title, short description, URL link)
 - 1.2. Overview / list of selected good / highly visited / highly replied Forum contributions (short description + link to the Forum content)
 - 1.3. Overview / list of relevant existing applications, services (title, description, URL link)
 - 1.4. Overview and assessment of the availability of thematic domain data sets in the EU Geoportal

2. **Overview of the facilitator's activity** (Summary of personal activity in supporting the Community Forum (e.g. list of discussion topics you've opened, your discussion responses, files to share, new stakeholders reached, promotion of the Forum, change or good practice proposals, etc.).

2.1. Short summary of your activity during the INSPIRE Helsinki technical event in October 2019.

3. **Facilitator's suggestions for improvements**

3.1. For promotion, content generation, reaching new users etc.

3.2. For the SW collaboration platform used including the new functionality and better management

All reports are available at the group Chair. They will be uploaded to the new MIG collaborative platform once the 2016.4 old wiki is moved there.

Issues and risks

1) **New Forum content notifications**

Unfortunately, during the technical and content upgrade of the Forum platform the existing users' content notifications (subscriptions) had to be cancelled. As a result all former registered users have to setup their notifications again. Despite our promotion of this important task to do e.g. via the newsletter and a permanent on-line message, once users login still the number of users using the notifications is very low.

Overview of Group/Tags notifications used

Out of cc. 1000 registered users on **25/10/2019**:

- **42** users were subscribed to receive notifications from **190** groups,
- **66** users were following a total of **650** tags

On **05/03/2020** still only:

- **62** users are subscribed to receive notifications from **296** groups
- **84** users are following **796** tags

This means that the vast majority of registered INSPIRE Forum users do not get any notifications (e-mail) when a new information is posted in their favourite Group or topic (Tags).

2) **Missing / not active facilitator of the Earth science domain.** It is clearly visible that this important multi-theme (natural hazards, energy, soil, minerals, geology, groundwater, etc.) domain is without an active facilitator. It is very important to fill this gap.

3) **Missing MIG-T liaison for the domain Facilities, utilities and Public services.** This gap is also important to fill since the close interaction between Community Forum and MIG-T is vital.

Final remark: Due to the closing implementation period of INSPIRE, the Action 2016.4 would benefit from a critical assessment (cost & benefits, scope, actual use by Communities, EU institutions etc.). The assessment results could lead to a more focused new action under the new WP2020-2024.

2 2019.2 Improving accessibility of data sets through network services

The overall objective of this MIWP Action, endorsed during the last MIG meeting (27-28.11.2018) is to improve accessibility and use of the INSPIRE data sets via EU Geoportal¹. The new Geoportal as well as the endorsed revision of the M&R IRs are following a data-centric approach, which focuses on data sets and how they can be accessed through network services rather than considering data and network services as stand-alone components of the infrastructure.

Main expected outcomes:

- Improved accessibility of data sets in the INSPIRE Geoportal
- Updated TGs for metadata, view and download services
- Implementation roadmap (or Common Implementation Strategy)

Major tasks of the 2019.2 Action:

- 1) Maintenance and evolution of Geoportal
- 2) Support to MS with harvesting, processing, validating & publishing their MD, data sets, services
- 3) Simplification of data-service linking
- 4) Improving usability of MS data sets accessible from the Geoportal

1) Maintenance and evolution of Geoportal

- From **July – September 2019** the major internal system maintenance work was related to the hand over activity related to the leave of the main Geoportal architect and developer.
- From **October – December 2019** system fine tuning, bug fixing, adding the processing of MS metadata reflecting the new Decision on Monitoring and Reporting, e.g. system for calculation of Monitoring indicators + relevant changes in the UI of the Harvesting sandbox.
- **December 2019 – January 2020** preparation, execution and completion of the process for MS Monitoring 2019 (on 35 MS metadata catalogues) with the harvest on 15-12-6.1.2020.
- **January – March 2020** creation of the new **Monitoring 2019 overview page**² for MS administrators to publish the results of the harvesting, validation, and indicator calculation; MS metadata processing and indicator calculation using a new system for the bulk validation of MS metadata (data sets, services) based on the direct use of the Reference Validator³, and aimed at calculating indicators MDi1.1 and MDi1.2; bug fixing, checking, fine tuning the process as well as the backend system.

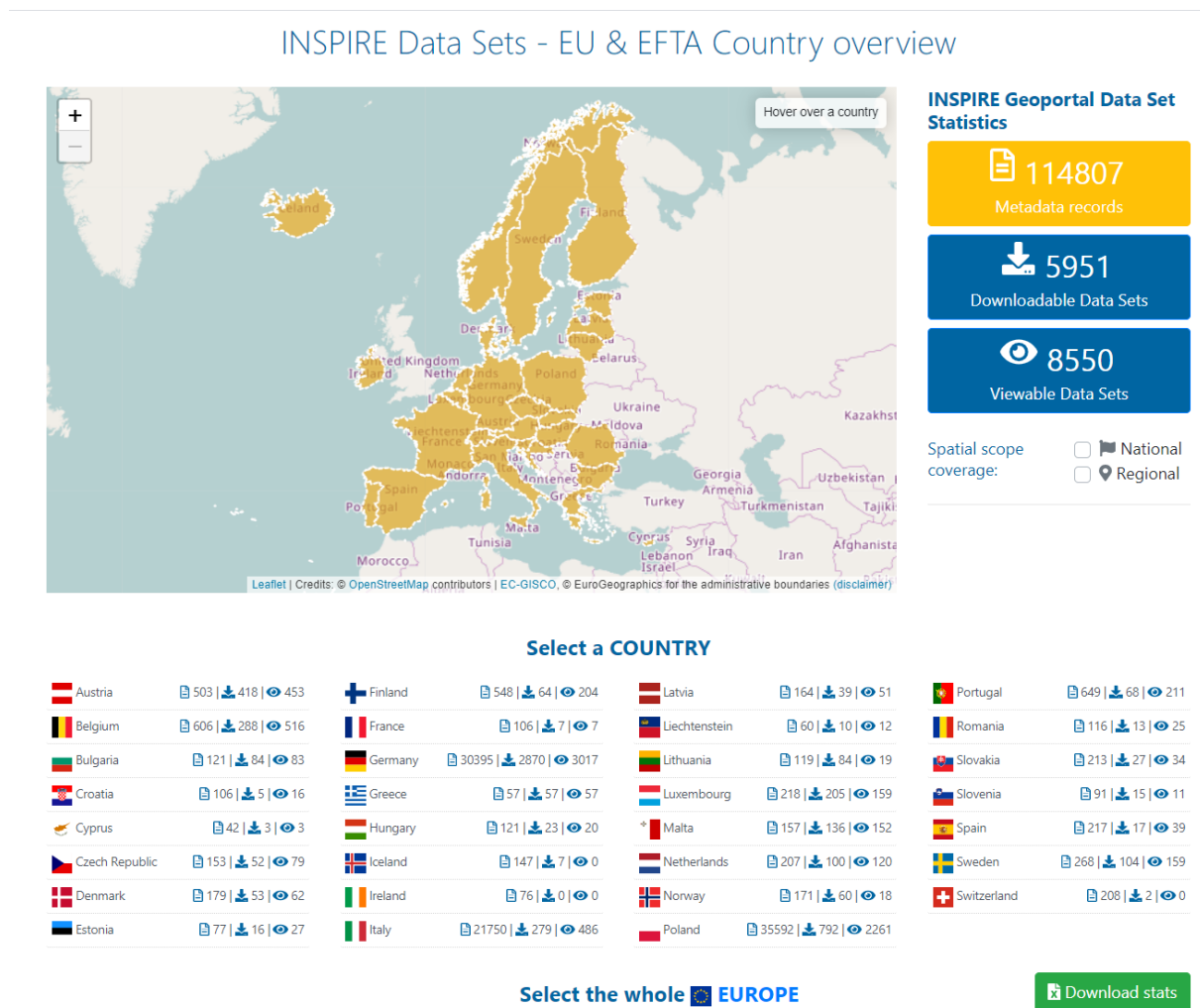
¹ EU Geoportal: <http://inspire-geoportal.ec.europa.eu/>

² <https://inspire-geoportal.ec.europa.eu/mr2019.html>

³ <http://inspire.ec.europa.eu/validator/about/>

- February 28, 2020** publication of the new version (1.3) of Geoportal, mainly updating the Priority Data Set Viewer, but also adding new filtering options using new obligatory keywords (National, Regional, Priority data sets), download status excel spreadsheet + bug fixing.

Availability of MS data sets in the Geoportal (16.3.2020)



Note 1: The Geoportal is a central assess point to the distributed SDI of MS resources harvested at a certain time. Therefore data set accessibility statistics have to be always checked with the dates of last harvests⁴. Also when viewing or downloading selected data sets, the underlying network services are maintain directly by MS data providers. Therefore they have to be up and running in order to be able to view or download the data sets.

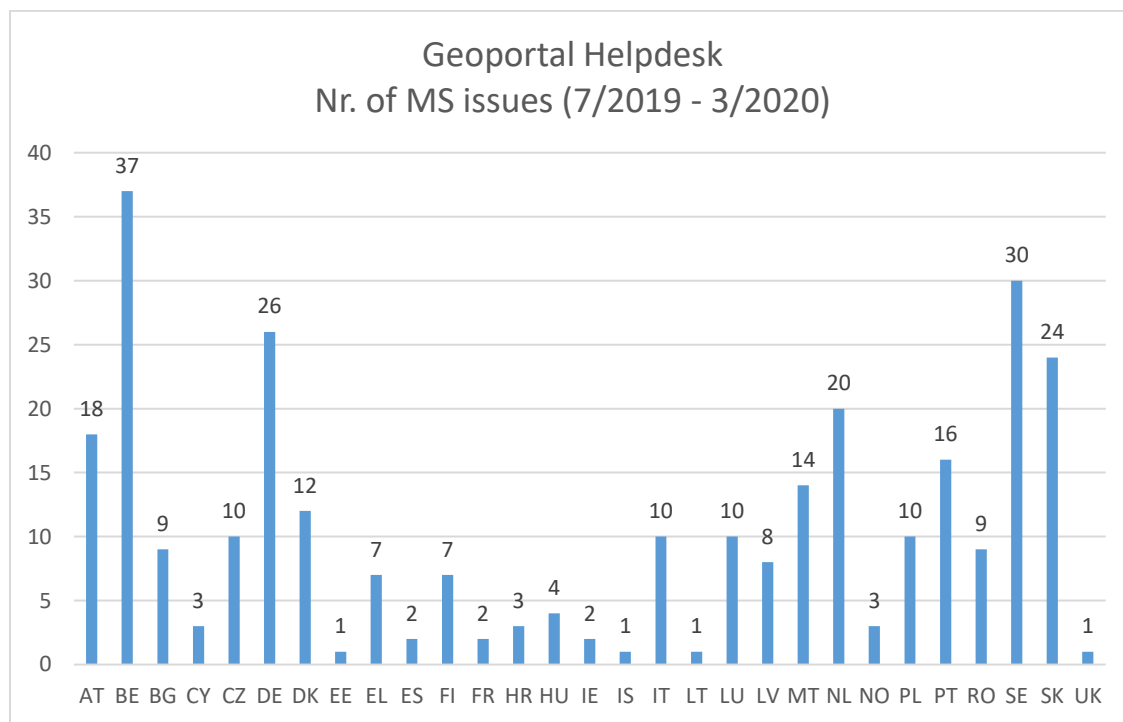
Note 2: For the Monitoring 2019 exercise, the technical validation rules regarding viewability and downloadability of data sets were relaxed compare to the Geoportal production system (frontend ups). The relaxation was enabled temporarily on the checking of view and download services whether

⁴ https://inspire-geoportal.ec.europa.eu/harvesting_status.html

they are working (i.e. respond to the request). As a result the numbers of downloadable and viewable data sets differ a bit.

2) Geoportal helpdesk - support to MS with harvesting, validating and publishing their data

The Geoportal Helpdesk⁵ as an on-line support provided by JRC Geoportal administrators to MS data providers continued to be the main and preferred option for necessary technical interactions. Due to the fact that the new INSPIRE Monitoring 2019 workflow was directly integrated with the Inspire Geoportal, i.e. reflecting the real accessibility of MS resources, the number of MS issues reported to the Geoportal helpdesk **has tripled – 300**.



Total number of issues published: 300 (from 1.7.2019 to 16.3.2020)

Due to the limited resources on the JRC site and the priority to complete the Monitoring 2019 exercise, the response time of the JRC Geoportal team slowed down and was not optimal. The MS we re-informed about this several times during various meetings (e.g. MIG-T meeting 5/3/2020).

Geoportal instructions:

- 1) The Geoportal should not be used as a first instance validator of MS resources. Instead the Reference Validator and the Geoportal Linkage Checker tool should be used before attempting to push the MS records to the EU Geoportal. The optimal workflow was presented by the JRC during the 60th MIG-T meeting in Prague⁶.
- 2) Since the Helpdesk support is very time consuming, the MS administrators were instructed to first search through the issue tracker to see whether their issue has been already answered (very often the case).

⁵ Geoportal Helpdesk: <https://ies-svn.jrc.ec.europa.eu/projects/geoportal/issues>

⁶ <https://webgate.ec.europa.eu/fpfis/wikis/display/InspireMIG/61st+MIG-T+meeting+2020-03-05>

3) Simplification of data-service linking

Context:

The main objective of this activity is to look for a possible simplification of the way the INSPIRE resources are currently linked (MD of data sets and MD of services) due to the facts that:

- The level of data-service linking is insufficient; many organizations in the MS are not able to provide implementations in line with the current TGs;
- The current approach for data-service linking in the TGs (metadata and network services) is widely acknowledged as complicated and there are different interpretations of the requirements, even by implementation/standards experts;
- This has negative impacts on the accessibility of INSPIRE data sets and future monitoring and reporting (based on metadata) and hence as the overall impression of the usability of the INSPIRE infrastructure;
- The fact that the current approach for service metadata requires extensions to base standards is posing an obstacle to the implementation of INSPIRE requirements (because they are not widely implemented in off-the-shelf software);
- There is a clear overlap / duplication of data set and service metadata, which in some cases leads to inconsistencies.

The activity builds on the document discussed during the MIG-T meetings and also presented to MIG meeting in November 2018⁷.

Status of the task since the last MIG meeting 20.6.2019:

During the 10th MIG meeting (20.6.2019) the activity was reinforced and strongly recommended to continue.

- The new wiki page⁸ of the group has been created and the results of the kick-off meeting, a short summary of the group MS feedback (6 countries) and examples were uploaded.
- Based on the agreed follow-up actions, the JRC held internal technical meetings to find the best way to proceed, also taking into account the new MD TG 2.0. As a result, the following encoding of INSPIRE services using the Resource locator element was proposed:
 - Provision of the "**linkage**" element with the **URL** to the access point of the INSPIRE service, i.e. the OGC service capabilities document.
 - Populate the "**description**" element with the value "**access point**" from the already existing INSPIRE code list: <http://inspire.ec.europa.eu/metadata-codelist/OnLineDescriptionCode>
 - Populate the "**protocol**" element with the **implementation specification** of the service (e.g. "OGC-WMS"), selecting it from a newly created code list ('protocol') of mainly OGC-based services + ATOM that are used in INSPIRE: <http://inspire.ec.europa.eu/metadata-codelist/ProtocolValue>

⁷ Discussion Paper on possible simplification of data-service linking in INSPIRE: https://webgate.ec.europa.eu/fpfis/wikis/pages/viewpage.action?pagelId=298660106&preview=/298660106/308119079/%5BDOC7%5D_Discussion%20Paper%20on%20data-service%20linking%20v0.5.docx

⁸ <https://webgate.ec.europa.eu/fpfis/wikis/pages/viewpage.action?pagelId=372574541>

- Populate the "**applicationProfile**" element with the INSPIRE **spatial data service type** (e.g. "download") value selected from the already existing code list <http://inspire.ec.europa.eu/metadata-codelist/SpatialDataServiceType>
- Four volunteering countries (IT, ES, NL, EL) provided examples (uploaded in wiki) of MD encoded according the abovementioned agreed technical proposal.

At this point the activity was stopped for the limited resources issue on the JRC site. As soon as the Monitoring 2019 exercise finishes, the activity will continue:

- The JRC will check the MS examples and modify the Geoportal backend system to be able to correctly link the resources and publish the MD correctly in the EU Geoportal frontend.

4) Improving usability of MS data sets accessible from the Geoportal

Three major topics for improvement have been clearly identified, which go beyond the INSPIRE legal obligations on how data sets shall be made available but are greatly affecting the usability of such data sets. In particular, it is considered of high priority to address the following three issues:

- 1) Organization of data for distribution in the INSPIRE infrastructure (view and download services)**
- 2) Protection to data/service access**
- 3) Conditions on access and limitations on use**

All three aspects have been presented and discussed in-depth during the MIG-T face to face meeting in Prague⁹.

Regarding the **ad1)** Organisation of data for distribution, two topics have been presented:

- 1) The alignment of the use of MD of data sets vs. data set series for large data sets, e.g. orthophotos and cadastral parcels.
Recommendation: to document such data sets as data set series (with one entry in the national discovery service), pointing to several data sets at a specific level of aggregation (e.g. region, municipality, theme).
- 2) The use of the Distribution MD element to distinguish between harmonised and as-is data sets.

MS are welcome **to share their national experiences** via the MIG collaboration platform as well as in INSPIRE Community Forum.

Regarding the **ad2)** Protecting INSPIRE resources:

- JRC Geoportal Team is working on the technical solution to identify all datasets/services behind any authentication layer and mark those datasets with a different "downloadable" icon in the Geoportal frontend. The user will be able to distinguish immediately downloadable data sets without any authentication from those that require authentication (login/password).

⁹ <https://webgate.ec.europa.eu/fpfis/wikis/pages/viewpage.action?pageId=403577978>

Regarding **ad3) Conditions on access and limitations on use - harmonization:**

The purpose of the analysis is to identify and clearly tag, in the INSPIRE Geoportal, the MS data sets available under an open license. An open license is here meant as a license allowing to freely use, modify and distribute the data set (or modified versions of the data set) for any purpose, under the conditions of - at most - providing the attribution of the data set source. Examples of open licenses (as meant in this context) are CC0 and CC BY.

The effort was made to collect clear technical instructions from MS on how to filter out those open data sets from national discovery services.

22 national responses¹⁰ with technical instructions were received.

The original idea was to aggregate the national filters and apply them during the MD processing to show these open data sets with a distinct icon in the Geoportal frontend.

Unfortunately, also this task was not completed due to the other priorities and shortage of resources. However, the topic was reminded / proposed again to be continued. The most effective solution is yet to be found.

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<https://webgate.ec.europa.eu/fpfis/wikis/display/InspireMIG/Improving+usability+of+INSPIRE+Data+sets>

Annex 1: Statistics - Use of Geoportal (1.7.2019 – 16.9.2020)

