



Status of implementation of the INSPIRE Directive – 2016 Country Fiches

COUNTRY FICHE Hungary

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Introduction

The INSPIRE Directive sets the minimum conditions for interoperable sharing and exchange of spatial data across Europe as part of a larger European Interoperability Framework and the e-Government Action Plan that contributes to the Digital Single Market Agenda. Article 21 of [INSPIRE Directive](#) defines the basic principles for monitoring and reporting. More detailed implementing rules regarding INSPIRE monitoring and reporting have been adopted as [COMMISSION DECISION regarding INSPIRE monitoring and reporting](#) on the 5th of June 2009.

This country fiche highlights the progress of Hungary in the various areas of INSPIRE implementation and presents an outlook of planned actions for further improvement of the INSPIRE implementation. The country fiche includes information **until May 2016** as a summary of the information acquired through:

- the 2016 [tri-annual INSPIRE implementation report](#),
- [monitoring report](#) in May 2016,

- a [bilateral meeting](#) on the implementation of the INSPIRE Directive between the Commission and Hungarian representatives.

1. State of Play

A high-level view on the governance, use and impact of the INSPIRE Directive in Hungary. More detailed information is available on the [INSPIRE knowledge base](#).

The content of the chapter is tagged according to 5 criteria of better regulation:

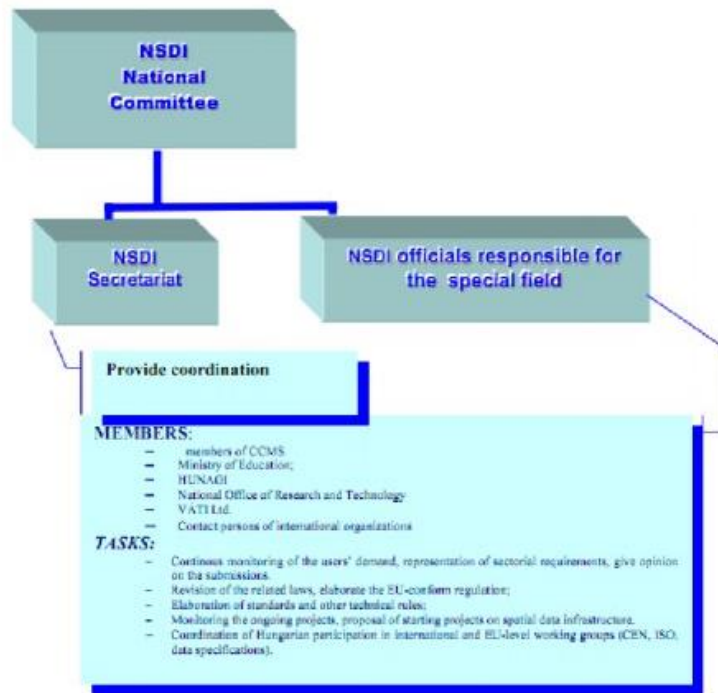
- **[Effectiveness]** How successful has the INSPIRE implementation been in achieving, progressing towards its objectives; progress made, gaps, what factors have influenced or why it has not yet been achieved regarding availability of services, data interoperability, sharing, data policy obstacles
- **[Efficiency]** Costs (numbers or difficulties to evaluate them); benefits (qualitative or quantitative) already visible.
- **[Relevance]** Is it still relevant to make data interoperable, remove obstacles of data sharing, drive collaboration between public services, necessary for National SDI, use cross-sector, requested by eGovernment, modernisation of public admin, etc.; support given by National Institutions for implementation
- **[Coherence]** Internal coherence of INSPIRE provisions proved by implementation; cross-border applications; coherence with other National and EU policies
- **[EU-added value]** Improvement of EU cross-border data management and use; use for environmental monitoring and reporting, use for and with Copernicus data; use cross-sector.

1.1 Coordination

- National Contact point

Name of the public authority	Földművelésügyi Minisztérium
Contact information:	
Mailing address	1055 Budapest, Kossuth Lajos tér 11. HUNGARY
Telephone number	+36-1-795-2000
Telefax number	+36-1-795-0200
Email address	info@fm.gov.hu
Organisation's website URL	http://www.kormany.hu/hu/foldmuvelesugyi-miniszterium
Contact person (if available)	Ms Piroska ZALABA
Telephone number	+36-1-7952-202
Email address	piroska.zalaba@fm.gov.hu
Contact person - substitute (if available)	Mr Tamás PALYA
Telephone number	+36-1-460-4091
Email address	palva.tamas@fomi.hu

- Coordination Structure



- Progress

- The National Coordination Body founded in sense of Art. 10 of the National Environmental Information System for supporting the INSPIRE Directive was disbanded on 29/05/2010. The Ministry for Agriculture and Rural Development plays the role of the National Contact Point with the support of the Institute of Geodesy, Cartography and Remote Sensing.
- The implementation of the INSPIRE Directive is actively supported by HUNAGI (Hungarian Association for Geographic Information), which is an NGO. Every year within the period of 2013-2015 HUNAGI organised a conference prompting INSPIRE in order to strengthen the collaboration of local and central governments, other bodies of public sector, academia, and industry.
- Hungary is lagging behind in INSPIRE implementation. Following the visit of DG Environment Hungary prepared an action plan on accelerating the progress.

1.2 Functioning and coordination of the infrastructure

- Currently no national SDI with harmonised rules exists in Hungary. Each sector handles data according to their own regulations in force. There is no regulation that requires the harmonisation of data, metadata, access, etc. at national level.
- Art. 36 of Regulation XLVI/2012 on national surveying and mapping set the establishment of the national SDI. The implementing rules of the Regulations are currently being drafted. **[Relevance]**
- By April of 2016 the organisations responsible for the INSPIRE data themes have been identified.
- Many different data portals have been put in place, but the services are not harmonised.
- The discovery service for cadastral data was registered in the INSPIRE geoportal in 2014. The registration of the view and download services, within the same theme, took place in 2015. Other existing services for other themes are available through the local portals and websites.
- The Institute of Geodesy, Cartography and Remote Sensing implemented a coordinate transformation service between the unified national projection system (EOV) and ETRS89. The service can be used without charges.

1.3 Usage of the infrastructure for spatial information

- The Geological and Geophysical Institute of Hungary (MFGI) as well as the Institute of Geodesy, Cartography participated in a big number of project where the data exchange was

implemented according to the rules of INSPIRE or aim at elaborating common technical specifications for data exchange (MIN4EU, EGIP, MIN4EU, EGIP, GIS4EU, ESDIN, HUMBOLDT, EURADIN, EULEF). **[EU added value]**

1.4 Data Sharing Arrangements

- Regulation XLVI/2012 on national surveying and mapping prescribes payments for data exchange between all parties, comprising public authorities. There are only a few exceptions stated by the regulation (disaster management, and in a limited extent education and research). Against payment the data are accessible.
- The Institute of Geodesy, Cartography and Remote Sensing (FÖMI) and the Forestry Directorate of the National Food Chain Safety Office (NÉBIH) have agreed about the mutual exchange of orthoimagery and the forestry databases. **[Efficiency]**

1.5 Costs and Benefits

- National topographic and cadastral mapping does not receive budgetary contribution; all the costs of production and maintenance must be covered by own revenues generated by the services and data usage.
- In the past years the Geological and Geophysical Institute of Hungary (MFGI) spent around 5 (engineer level) person years on transforming their data and services in INSPIRE compliant ones. **[Efficiency]**
- Being INSPIRE compatible allows to participate in more European integration projects. **[EU added value]**

2 Key Facts and Figures

In addition to the above mentioned issues, the implementation of INSPIRE Directive requires Member States to take four main steps in relation to management of spatial datasets which fall under the Directive:

- Step 1: Identify spatial datasets
- Step 2: Document these datasets (metadata)
- Step 3: Provide services for identified spatial datasets (discovery, view, download)
- Step 4: Make spatial datasets interoperable by aligning them with the common data models.

The key facts and figures presented in this country fiche are based on the information provided by Hungary on the [INSPIRE dashboard](#). **The provided statistics is not reflecting the data available on [INSPIRE geoportal](#).** The INSPIRE geoportal is updated on a regular and ongoing basis, whilst the INSPIRE dashboard is typically updated after every reporting round, on a yearly basis.

The conformity of the implementation is assessed against the full set of legal specifications set out by the Directive and the Implementing Rules and the commonly agreed good practices set out by the technical guidelines.

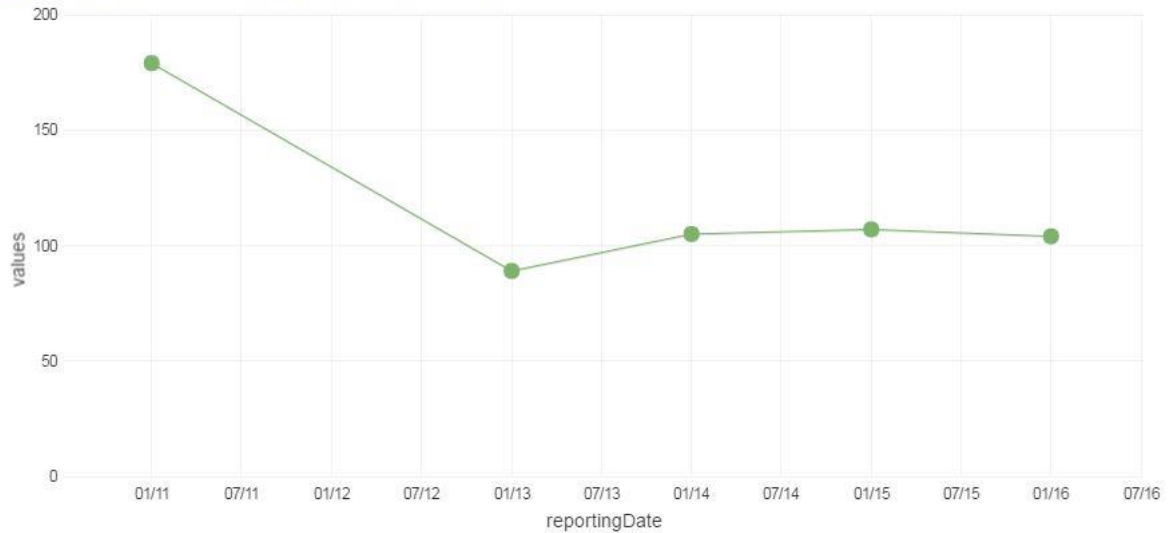
2.1. Identification of spatial data with relevance to the environment (step 1)

a. Evolution of the data offering

DSv_Num: number of spatial data sets for all Annexes

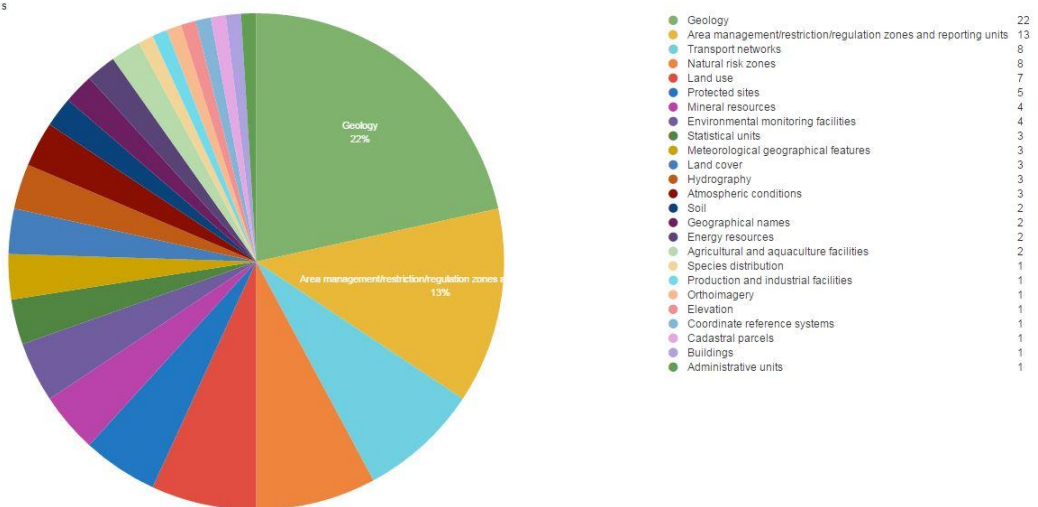
NUMBER OF SPATIAL DATA SETS FOR ALL ANNEXES (DSV_NUM)

(5) indicatorValue values per 1y | (5 Hits) | Time correction: browser



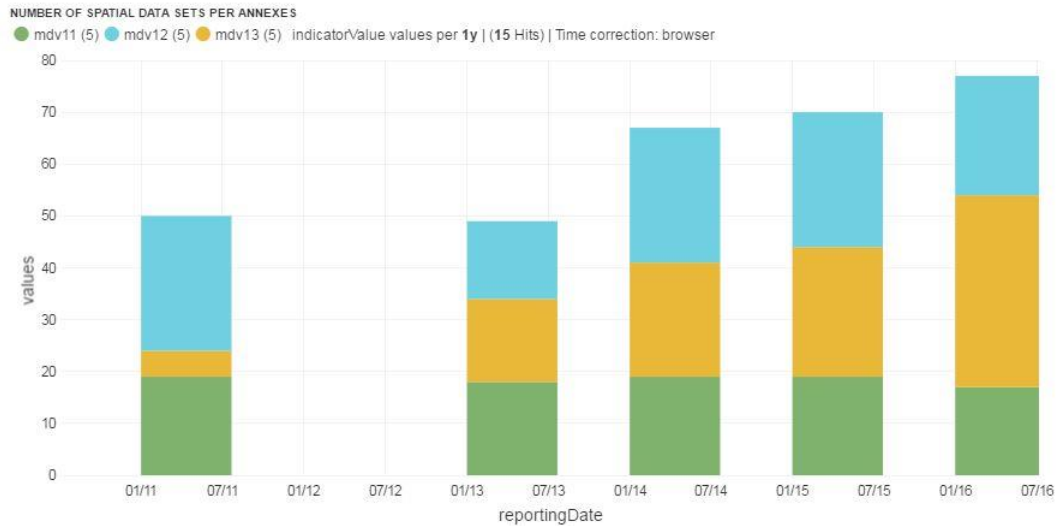
b. Data sets made available per INSPIRE theme in 2015

NUMBER OF RECORD PER THEMES



c. Data sets per annex (Annex 1 & 2: spatial reference data; Annex 3: environmental spatial data)

MDv1.1 (green): number of spatial data sets for Annex I that have metadata
 MDv1.2 (blue): number of spatial data sets for Annex II that have metadata
 MDv1.3 (yellow): number of spatial data sets for Annex III that have metadata



Evaluation of progress for step 1:

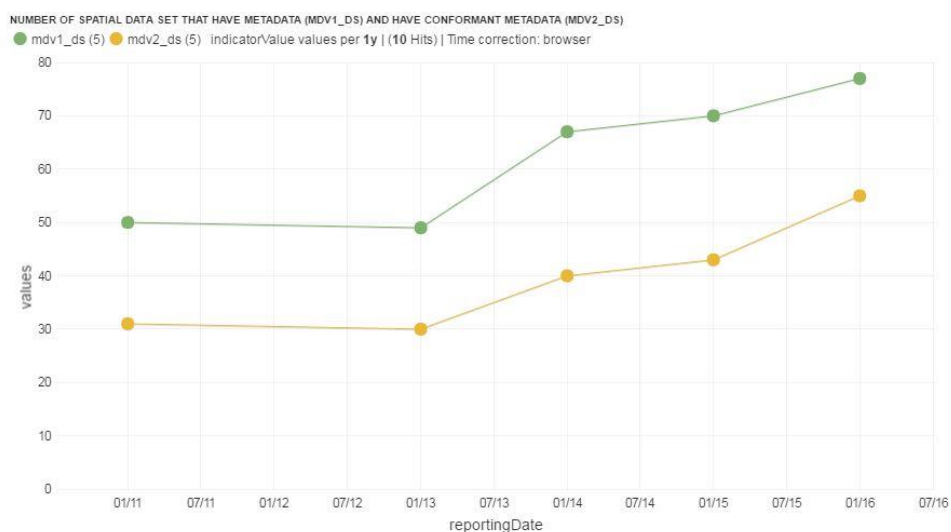
Hungary has identified a total of 104 spatial data sets with relation to the themes listed in the INSPIRE annexes.

Additional spatial data sets have been identified in 2015, mainly under Annex II data themes. A lot of relevant spatial data sets have already been identified for the different data themes. However, the identification still could further improve by identifying and documenting spatial data sets required under the existing reporting and monitoring regulations of EU environmental law.

2.2 Documentation of the data (metadata) (step 2)

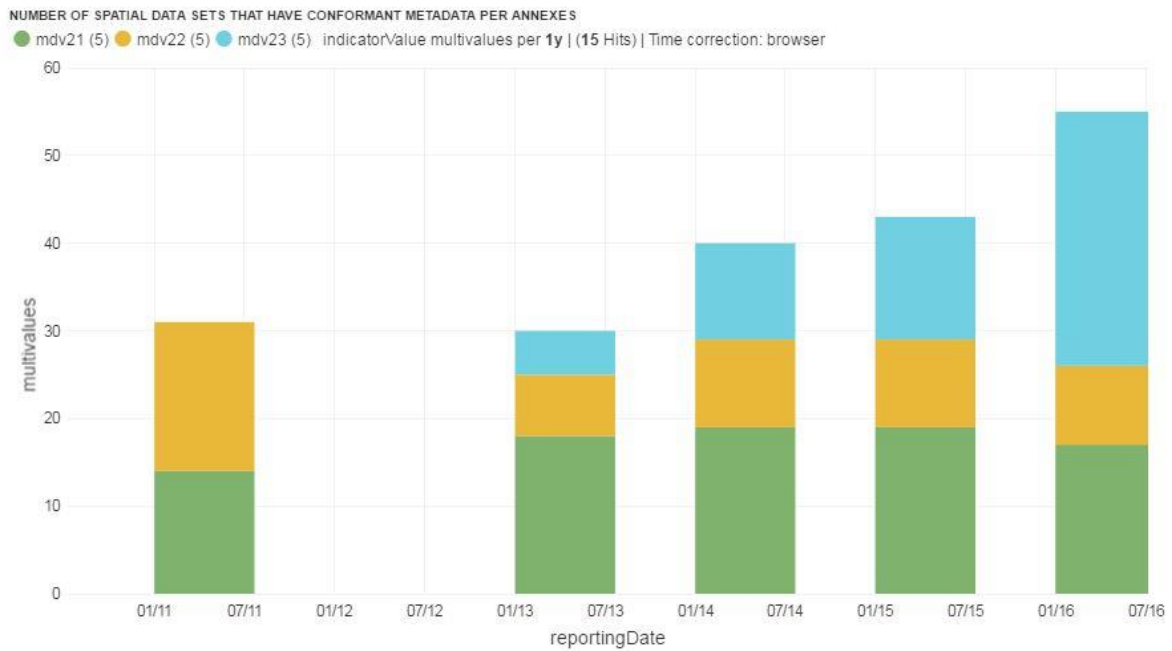
a. Evolution of documented data and conformity of the documentation

MDv1_DS (green): number of spatial data sets for all Annexes that have metadata
 MDv2_DS (yellow): number of spatial data sets for all Annexes that have conformant metadata



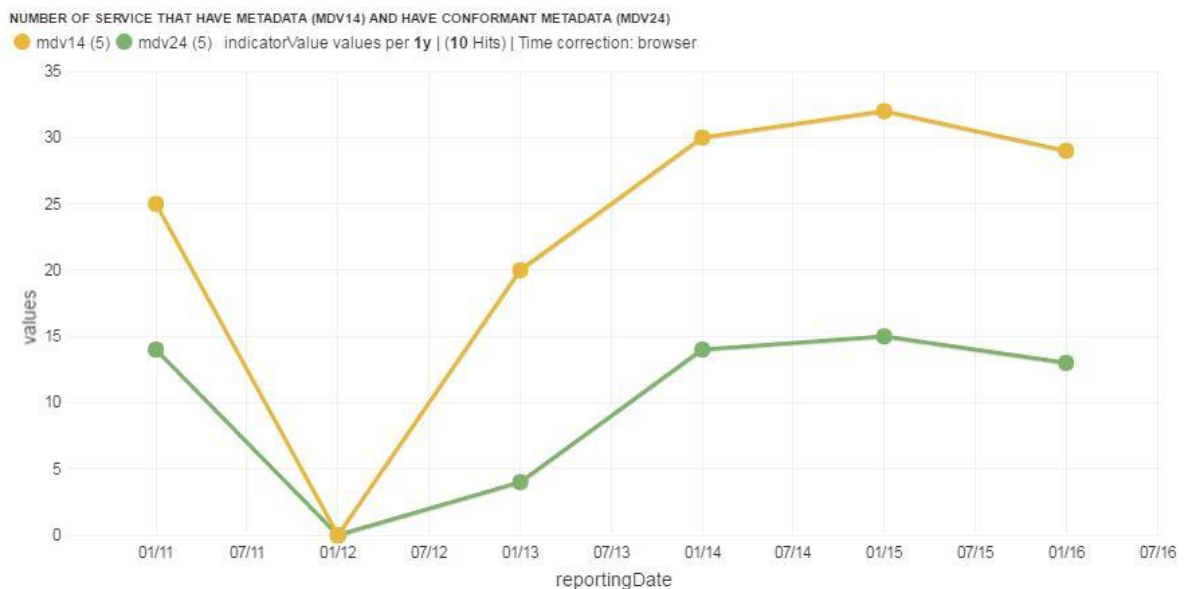
b. Documented data per annex in 2015

MDv2.1 (green): number of spatial data sets for Annex I that have conformant metadata
 MDv2.2 (yellow): number of spatial data sets for Annex II that have conformant metadata
 MDv2.3 (blue): number of spatial data sets for Annex III that have conformant metadata



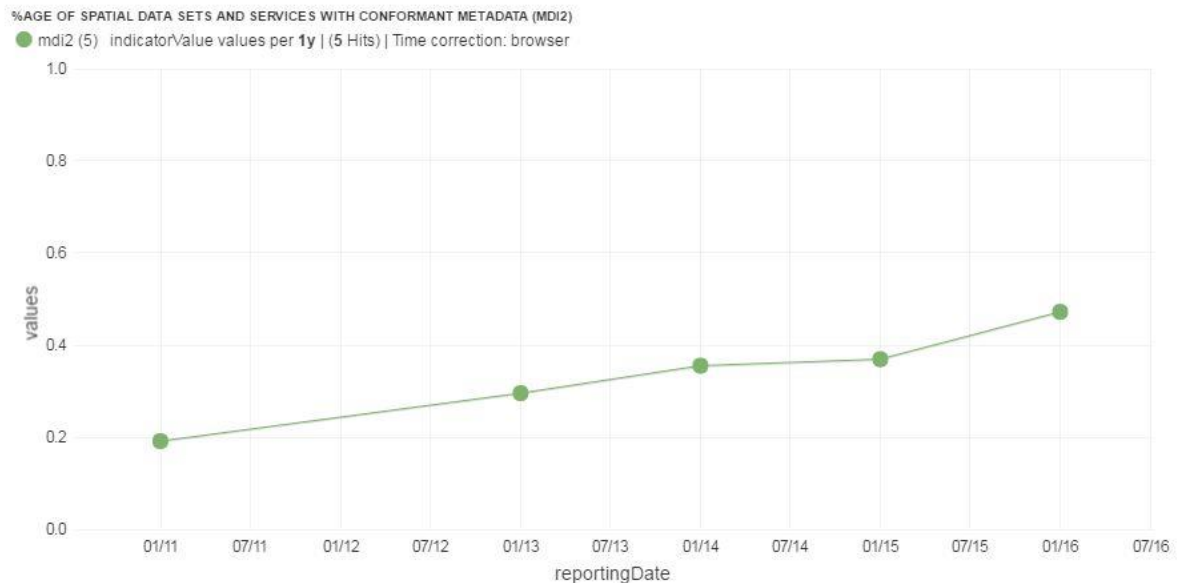
c. Evolution of documented services and conformity of the documentation

MDv1.4 (yellow): number of spatial data services that have metadata
 MDv2.4 (green): number of spatial data services that have conformant metadata



d. Evolution of the overall conformity of the documented metadata

MDi2 = (number of spatial data sets for all Annexes that have conformant metadata + number of spatial data services that have conformant metadata) / (number of spatial data sets for all Annexes + number of spatial data services)



Evaluation of progress for step 2:

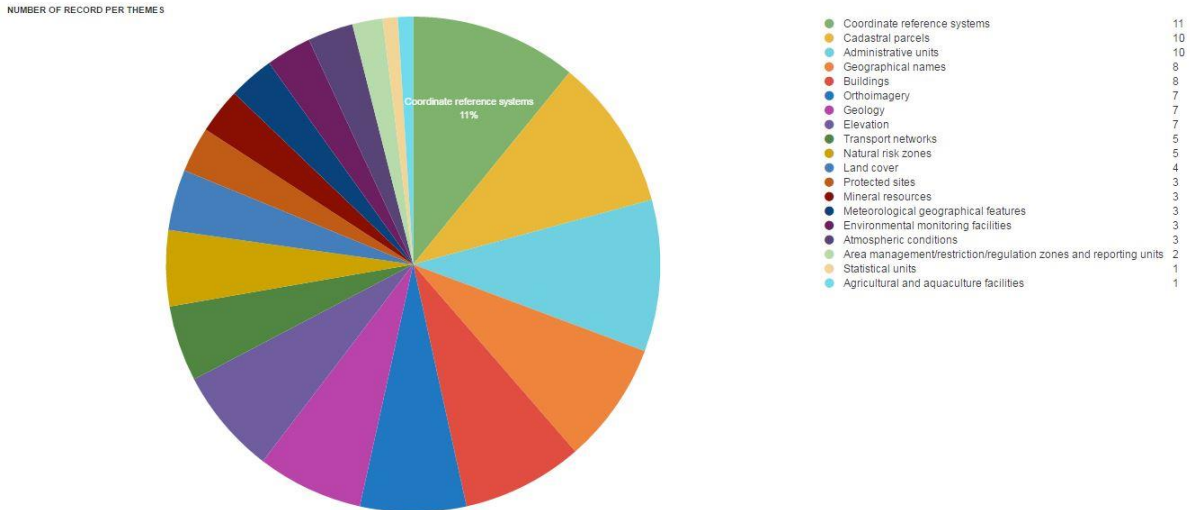
Hungary has documented and published metadata through a digital discovery service for 74,04% (77 out of 104) of the identified spatial data sets and 72,5% (29 out of 40) of the digital services. Overall, 47,22% of the metadata conforms to the INSPIRE metadata specifications.

The documentation of spatial data sets has further improved in Hungary in 2015 and shows a high level of maturity. To support data discovery for the end-users of the INSPIRE infrastructure, Hungary should aim to achieve better technical conformity of the available metadata.

2.3. Accessibility of the data through digital services (step 3)

a. Digitally accessible spatial data per INSPIRE theme in 2015

Note: This figure reflects the amount of spatial data sets made available through a digital service, not the amount of available digital services. A digital service can make several spatial data sets available.



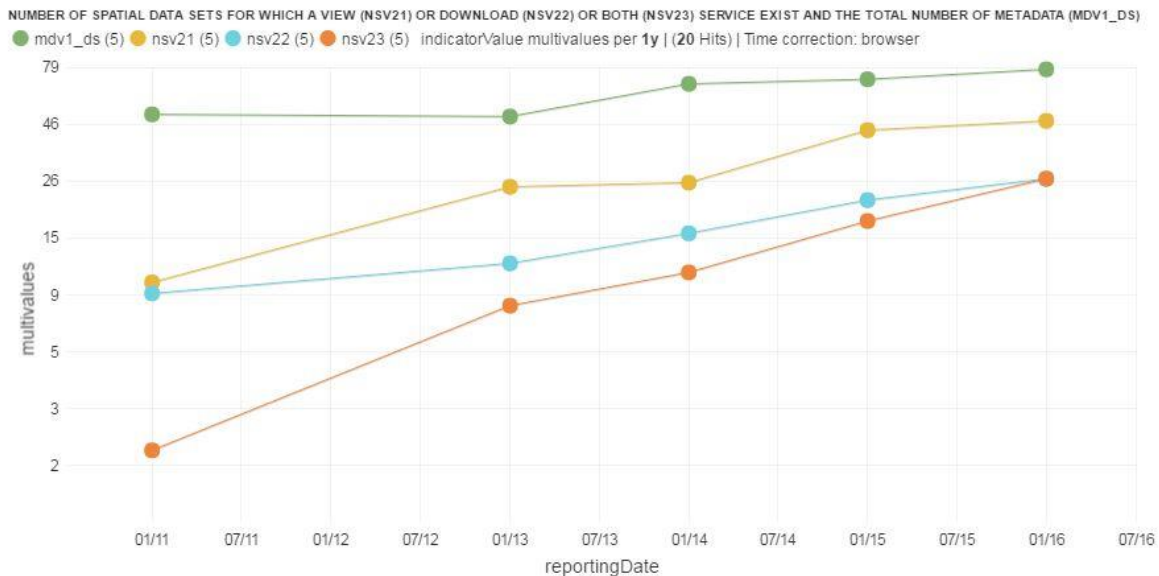
b. Evolution of spatial data made accessible through digital services

MDv1_DS (green): number of spatial data sets for all Annexes that have metadata

NSv2.1 (yellow): number of spatial data sets for which a view service exists

NSv2.2 (blue): number of spatial data sets for which a download service exists

NSv2.3 (orange): number of spatial data sets for which both a view and a download service exists



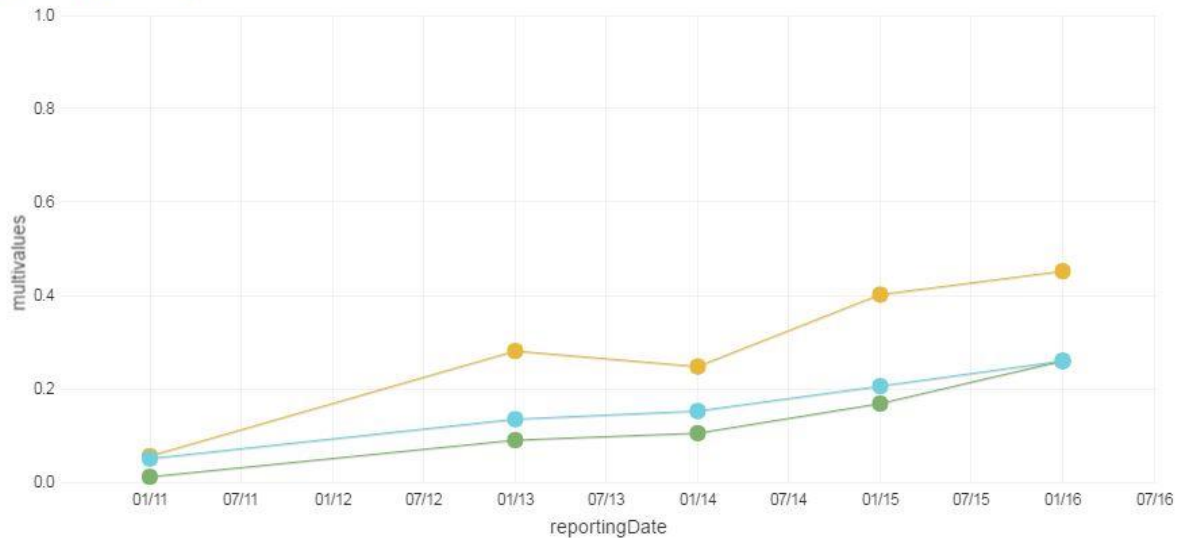
NSi2 (green) = number of spatial data sets for which both a view and a download service exists / number of spatial data sets for all Annexes

NSi2.1 (yellow) = number of spatial data sets for which a view service exists / number of spatial data sets for all Annexes

NSi2.2 (blue) = number of spatial data sets for which a download service exists / number of spatial data sets for all Annexes

%AGE OF SPATIAL DATA SETS FOR WHICH A VIEW SERVICE (NSI21), A DOWNLOAD SERVICE (NSI22) OR A VIEW AND DOWNLOAD (NSI2) EXIST

● nsi2 (5) ● nsi21 (5) ● nsi22 (5) indicatorValue multivalues per 1y | (15 Hits) | Time correction: browser



c. Evolution of the conformity of the digital services

NSv4 (red): number of all conformant network services

NSv4.1 (green): number of conformant discovery network services

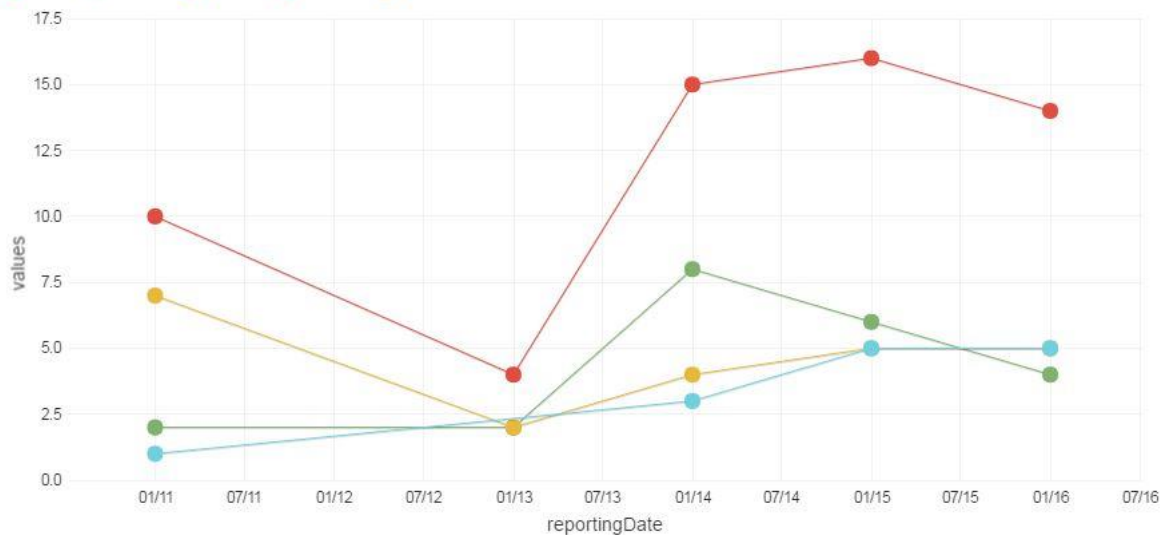
NSv4.2 (yellow): number of conformant view network services

NSv4.3 (blue): number of conformant download network services

NSv4.4 (orange): number of conformant transformation network services

NUMBER OF ALL CONFORMANT NETWORK SERVICES: DISCOVERY (NSV41), VIEW (NSV42), DOWNLOAD (NSV43), TRANSFORMATION (NSV44) TOTAL (NSV4)

● nsv4 (5) ● nsv41 (5) ● nsv42 (5) ● nsv43 (5) ● nsv44 (5) indicatorValue values per 1y | (25 Hits) | Time correction: browser



Evaluation of progress for step 3:

Hungary has:

- 45,19% of its data sets accessible for viewing through a view service;
- 25,96% of its data sets accessible for download through a download service.

35% (14 out of 40) of the available digital services are conform to the INSPIRE network service specifications.

Hungary shows that it has built the necessary capacity and competences to make data accessible through digital INSPIRE network services. The technical conformity of the available services with the INSPIRE network service specifications is still poor. Hungary should boost their effort to further improve the accessibility of their spatial data through digital INSPIRE services.

2.4. Interoperability of spatial data sets (step 4)

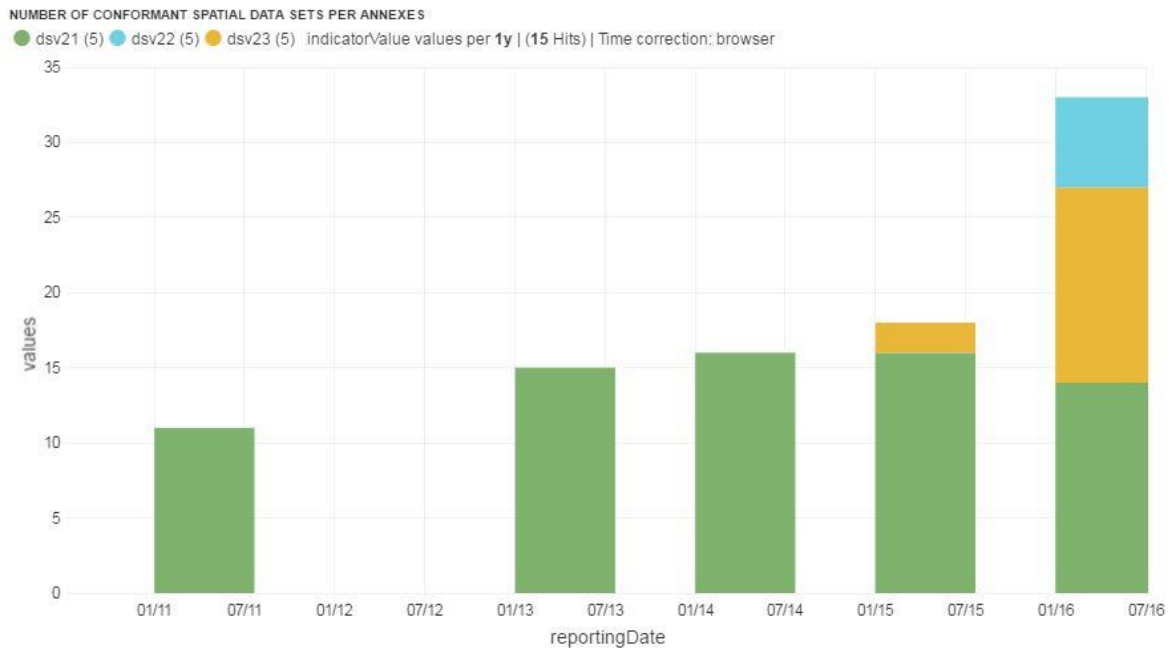
The interoperability of spatial data sets is an outlook on the readiness of Member States to make their spatial data interoperable according to the interoperability specifications laid down in the INSPIRE interoperability implementing regulation ([Commission Regulation \(EU\) No 1089/2010](#)). The deadlines for implementation of the spatial data interoperability are in the future: 23/11/2017 for Annex I data and 21/10/2020 for Annex II and III data.

a. Evolution of the conformity with INSPIRE interoperability specifications for spatial data

DSv2.1 (green): number of conformant spatial data sets with conformant metadata for Annex I

DSv2.2 (blue): number of conformant spatial data sets with conformant metadata for Annex II

DSv2.3 (yellow): number of conformant spatial data sets with conformant metadata for Annex III



Evaluation of progress for step 4:

Hungary has reported 33 data sets to be conform to the INSPIRE interoperability specifications in 2015.

We can conclude that Hungary has already started its preparations for the 2017/2020 data interoperability deadlines.

3. Outlook

Hungary has critically reviewed their INSPIRE implementation and provided an [action plan](#) in 2016 to remediate existing implementation issues and further improve the overall conformity of the implementation. The following actions are set up to directly address previously identified issues:

a. Coordination (1.1; 1.2)

- **Improvement of coordination** both on European and National level.
- **Detection of insufficiencies and correction of them** as soon as possible.
- **Nomination of new National Contact Point** of INSPIRE.
- **Establishment of Hungarian INSPIRE Working Group** with deadline of 31st March 2016
- **Identification of contacts, responsibilities and institutions responsible for INSPIRE themes** with deadline of 15th April 2016.
- **Quarterly analysis** of the stakeholders reports by the INSPIRE Working group and feedback to responsible contacts.
- **Review of INSPIRE related national legislation**, modification, new legislation if needed.

b. Data sharing and exchange (1.4)

- **Changing data policy** in order to make public data usage more effective.

c. Metadata (2.2)

- See at network services.

d. Network services (2.3)

- **Starting INSPIRE discovery (metadata) services** for Annex I. and Annex II. Themes with deadline of 30th November 2016
- **Starting INSPIRE view and download services** for Annex I. and Annex II. Themes with deadline of 31st March 2017
- **Starting INSPIRE discovery services** for Annex III. Themes with deadline of 31st March 2017

e. Data Interoperability (2.4)

- **Satisfy data requirements of European Environmental Directives** (e.g. air-pollution, flooding, water framework, water pollution etc.
- **Quarterly reports on each INSPIRE theme** and submission of them to INSPIRE Working Group

4. Summary - How is Country doing?

INSPIRE key obligation	Overall implementation status and trend	Outlook	<p align="center"><u>Dashboard Legend</u></p> <p>Implementation Status:</p> <p>😊: implementation of this provision is well advanced or (nearly) completed. Outstanding issues are minor and can be addressed easily.</p> <p>😐: implementation of this provision has started and made some progress but is still far from being complete. Outstanding issues are significant and need to be addressed to ensure that the objectives of the legislation can still be reached by 2020.</p> <p>😞: implementation of this provision is falling significantly behind or has not even started. Serious efforts are necessary to close implementation gap.</p> <p>Trend:</p> <p>↗️: the trend of the implementation is positive.</p> <p>➡️: the trend of the implementation is neutral.</p> <p>↘️: the trend of the implementation is negative.</p> <p>Outlook:</p> <p>🟢: clear and targeted actions have been identified which allow reaching the objectives of the legislation in an effective way.</p> <p>🟡: No real progress has been made in the recent past or actions which have been identified are not clear and targeted enough to predict a more positive outlook.</p> <p>🔴: no actions have been identified to overcome identified implementation gaps.</p>
Ensure effective coordination	😐➡️	🟢	
Data sharing without obstacles	😐➡️	🟡	
Step 1: Identify spatial datasets	😐➡️	🟡	
Step 2: Document datasets (metadata)	😐↗️	🟢	
Step 3: Provide services for identified spatial datasets (discovery, view, download)	😐➡️	🟢	
Step 4: Make spatial datasets interoperable by aligning them with the common data models.	😐↗️	🟡	

Specific recommendations:

For each Member State, the accessibility of environmental data (based on what the INSPIRE Directive envisages) as well as data-sharing policies have been systematically reviewed.

Hungary has indicated in the 3-yearly INSPIRE implementation report that the necessary data-sharing policies allowing access and use of spatial data by national administrations, other Member States' administrations and EU institutions without procedural obstacles are not fully available. With the exception of a limited set of spatial data sets, the existing Hungarian data policy does not allow for free data sharing between public administrations. This prevents cooperation between the different sectors in Hungary and creates an important obstacle for data-sharing.

Assessments of monitoring reports issued by Hungary and the spatial information that Hungary has published on the INSPIRE geoportal indicate that not all spatial information needed for the evaluation and implementation of EU environmental law has been made available or is accessible. The larger part of this missing spatial information consists of the environmental data required to be made available under the existing reporting and monitoring regulations of EU environmental law.

Suggested action

- Critically review the effectiveness of its data policies and amend them, taking 'best practices' into consideration.
- Identify and document all spatial data sets required for the implementation of environmental law, and make the data and documentation at least accessible 'as is' to other public authorities and the public through the digital services foreseen in the INSPIRE Directive.