



Status of implementation of the INSPIRE Directive – 2016 Country Fiches

COUNTRY FICHE Czech Republic

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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 Czech Republic 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 Czech Republic representatives.

1. State of Play

A high-level view on the governance, use and impact of the INSPIRE Directive in Czech Republic. 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

Member State Contact Point	
Name of the public authority	CENIA, česká informační agentura životního prostředí
Contact information:	
Mailing address	Vršovická 1442/65, Praha 10, 100 10
Telephone number	+ 420 267 225 226
Telefax number	+ 420 271 742 306
Email address	inspire@cenia.cz , info@cenia.cz
Organisation's website URL	www.cenia.cz
Contact person (if available)	Jitka Faugnerová
Telephone number	+ 420 267 225 308
Email address	inspire@cenia.cz
Contact person - substitute (if available)	Lenka Rejentová
Telephone number	+ 420 267 225 294
Email address	inspire@cenia.cz

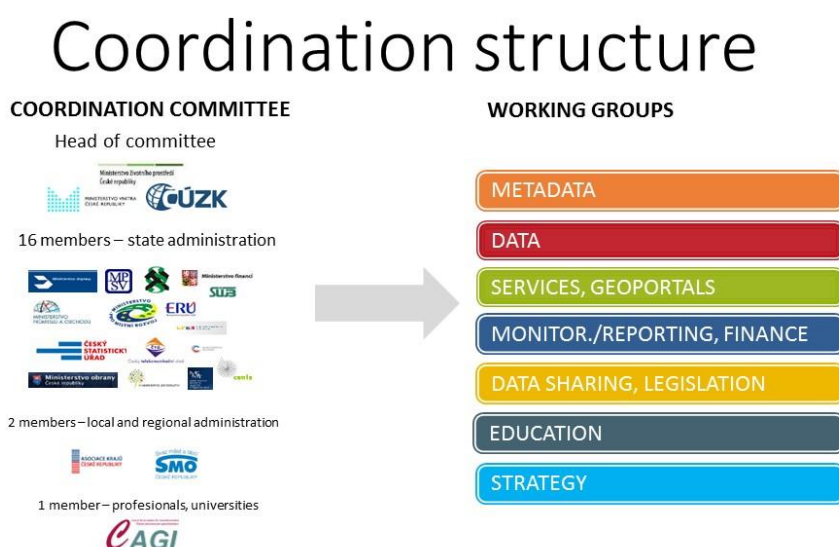
- Coordination Structure
 - **Ministry of the Environment (MoE)** is responsible for the INSPIRE implementation in the Czech Republic. MoE coordinates the infrastructure using **the INSPIRE Coordination Committee (KOVIN)** established in 2010. Members of KOVIN are representatives of all the central bodies (Ministries) of the Czech Republic (16 members), 2 representatives of associations for regional and local authorities and one representative of private sector, users and universities. **[Effectiveness]**
 - In agreement with MoE, **CENIA, Czech Environmental Information Agency** is in charge of **National INSPIRE Geoportal** (SW and HW maintenance and development, administration, updates and support to users), **communication** with data providers, communication with DG

ENV and JRC, **secretariat of KOVIN, national contact point and primary contacts** in both, Maintenance and Implementation Groups (**MIG**) **political and technical**.

- Progress
 - Positive progress (from 2015) is attributed to the fact that the Czech Government in October 2014 endorsed the Strategy for development of infrastructure for spatial information in the Czech Republic till 2020 (GeoInfoStrategy). This Strategy, coordinated by the Ministry of Interior includes also mandatory implementation of the INSPIRE Directive. **Detailed implementation plan for the INSPIRE Directive (called the INSPIRE implementation strategy) was drafted during the year 2014 and then endorsed by KOVIN and Minister of the environment in July 2015. [Relevance]**

1.2 Functioning and coordination of the infrastructure

- Coordination Committee (KOVIN) meets on regular basis, chaired by deputy minister of the environment. Practical implementation issues are solved in dedicated Technical Working Groups (currently 7)



- In accordance with the INSPIRE implementation strategy the concept of identification and development of National INSPIRE Datasets is followed resulting in positive identification of responsible organizations for provision of the INSPIRE datasets. These organizations are responsible for the INSPIRE dataset within the extend of the whole country and also for all the spatial objects and their attributes required by the data specifications, if possible. In many cases cooperation of more data providers is needed to cover one INSPIRE theme, either because of the limited coverage of their data sets or because the management of the spatial data object or attributes is responsibility of different organizations. **[Coherence], [EU-added value]**
- The quality of metadata, services and data itself has improved due to the coordinated approach taken. As a consequence, the number of datasets published in EU Geoportal has decreased. **[EU-added value]**
- Despite the improvement of the identification of relevant, INSPIRE datasets / responsible organizations in case of some Annex III themes, it is still an issue (e.g. Utilities themes). **[Relevance]**

1.3 Usage of the infrastructure for spatial information

In general, use of spatial data/services has increased significantly during the last 10 years. The access to these data sources is **not** only provided via central national portals (e.g. National Czech INSPIRE Geoportal - <https://geoportal.gov.cz> or National Open data portal - <http://opendata.gov.cz>), but several domain specific geoportals have been existing and providing source geodata and services and are

successfully in use by all types of users (e.g. **Base reference data:** <http://geoportal.cuzk.cz>, **Nature** - <http://mapy.nature.cz/>, **Geology:** <http://mapy.geology.cz> etc.). **[Relevance]**

- The National MD / data harvesting is functioning well therefore users have usually several options to find and use published spatial data. On the other hand the accessibility and service stability is not always 100%.
- The use of National INSPIRE services (registered on EU Geoportal) is due to the limited data content often lower than of the services providing more detailed data required for national e-Government agendas (e.g. via Base Register of Territorial Identification, Addresses and Real Estates) .

1.4 Data Sharing Arrangements

- The issue of data sharing and licensing of spatial data sets still exists and is rather complex. Still the common practice is that public organizations sign bilateral agreements that cover usually data use, updates etc. The agreements are not harmonized therefore it naturally creates a barrier for better access and uses for those outside the agreements. Open data policy applies in the CZ only for non-spatial data, spatial data remain without a simple solution. Spatial data subject to e-government is available free of charge and without any restrictions (this is given by a law). This concerns most of the INSPIRE Annex I Themes. **[Relevance]**
- The Strategy for development of infrastructure for spatial information in the Czech Republic till 2020 has included licensing within its action plan. There, **by the end of 2016**, all the INSPIRE data sets made available at EU geoportal either via download service or as prepared data sets in the e-shop of the National INSPIRE Geoportal will be accompanied with **Basic INSPIRE License** agreed by all the relevant data providers. **[Coherence]** , **[EU-added value]**

1.5 Costs and Benefits

- Cost assessment was carried out by members of the KOVIN Technical WG on monitoring, reporting and finance. A dedicated template was prepared and the cost was estimated in terms of financial as well as personal resources. The total sum estimated for the years 2013-2015 is 64,2 mil Kč (cca. 2.38 mil Euro) and 10355 person days. **[Efficiency]**
- Benefits were not precisely financially quantified; however, these are the major benefits agreed by the Coordination Committee (KOVIN): **[Relevance]** – **for all following**
 - Better accessibility of data in general
 - Ability to carry out analysis on up-to-date, reliable data (in this case payments for data seemed not to be such issue as an analyses published using outdated data)
 - Existence of new jobs due to the fact that spatial data is used more and more in official agendas of public organizations
 - Innovation potential (new services, apps) stem from availability of standardized services, open data and ICT development.
 - Contribution to cross-border and/or EU projects and services

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 Czech Republic 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.

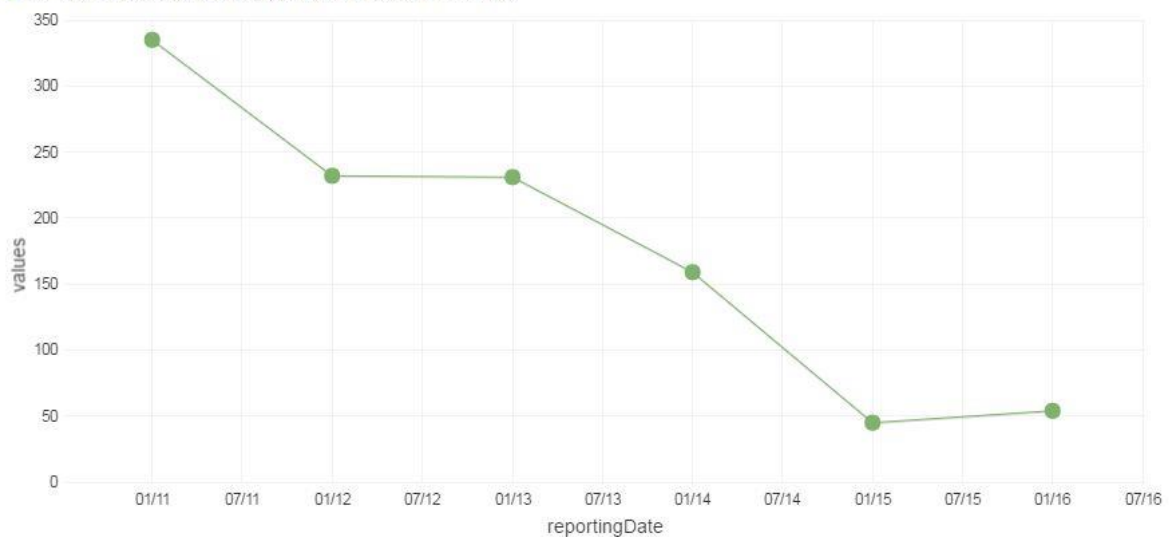
2.1. Identification of spatial data with relevance to the environment (step 1)

a. Evolution of the data offering

DSv_Num: number of spatial data sets for all Annexes

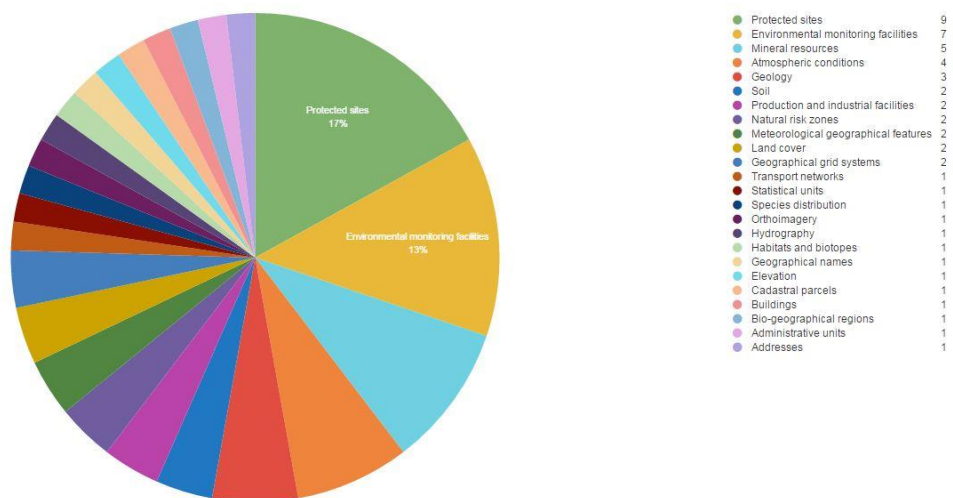
NUMBER OF SPATIAL DATA SETS FOR ALL ANNEXES (DSV_NUM)

● (6) indicatorValue values per 1y | (6 Hits) | Time correction: browser



b. Data sets made available per INSPIRE theme in 2015

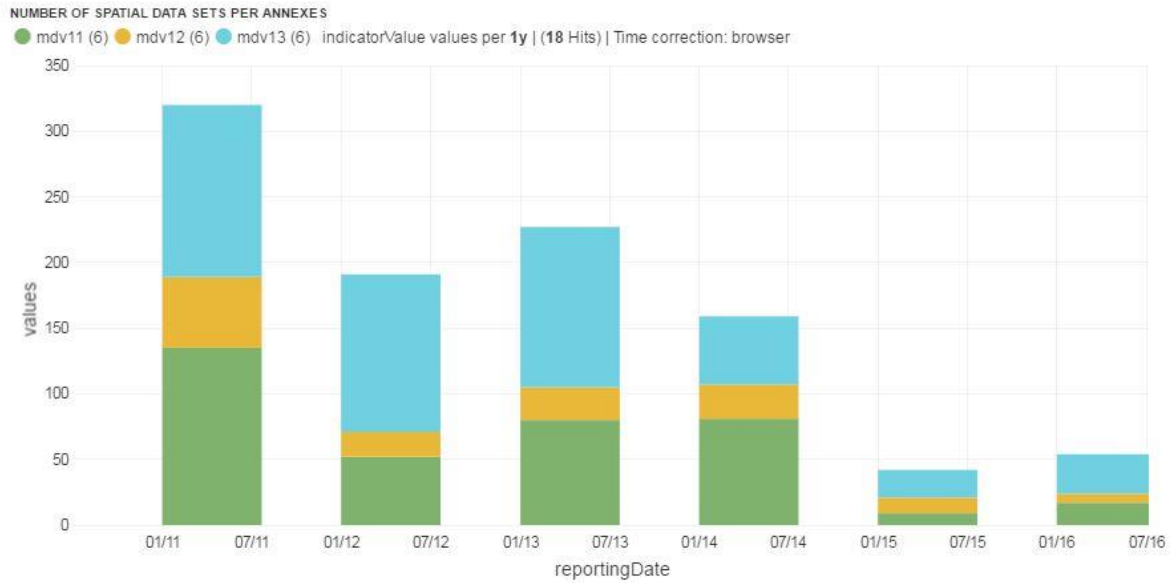
NUMBER OF RECORD PER THEMES



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



Evaluation of progress for step 1:

Czech Republic has identified a total of 54 spatial data sets with relation to the themes listed in the INSPIRE annexes.

The number of identified spatial data sets has been decreased in period from 2013 onwards as a consequence of coordinated approach. Relevant spatial data sets have already been identified for the Annex I and Annex II data themes. However, the identification could further improve by identifying and documenting remaining spatial data sets of Annex III Themes required under the existing reporting and monitoring regulations of EU environmental law.

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

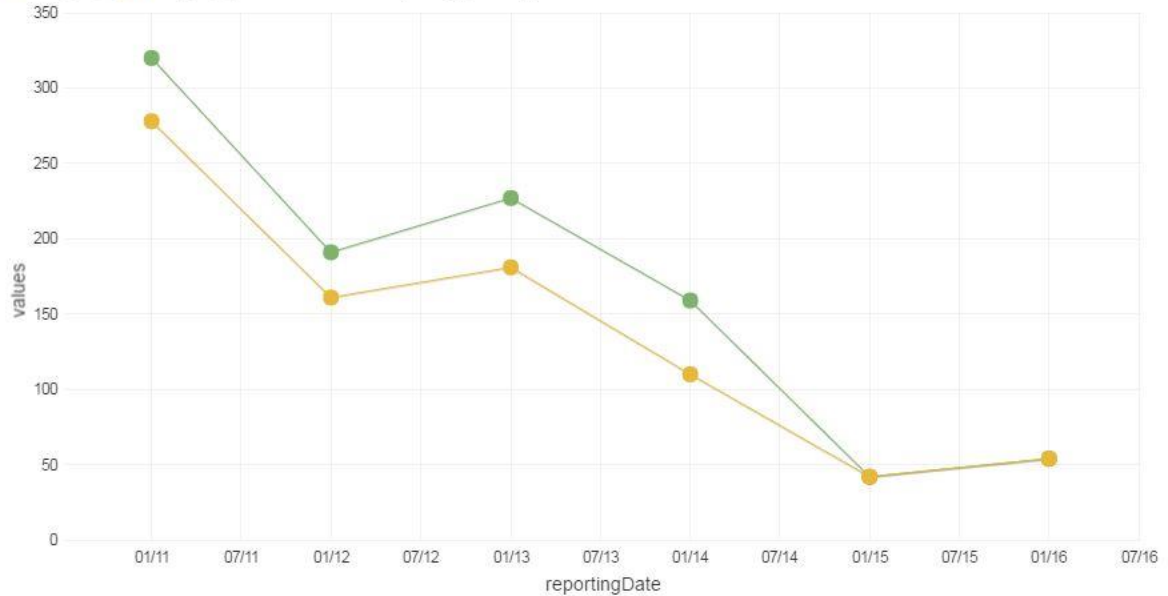
a. Evolution of documented data and conformity of the documentation

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

NUMBER OF SPATIAL DATA SET THAT HAVE METADATA (MDV1_DS) AND HAVE CONFORMANT METADATA (MDV2_DS)

● mdv1_ds (6) ● mdv2_ds (6) indicatorValue values per 1y | (12 Hits) | Time correction: browser



b. Documented data per annex in 2015

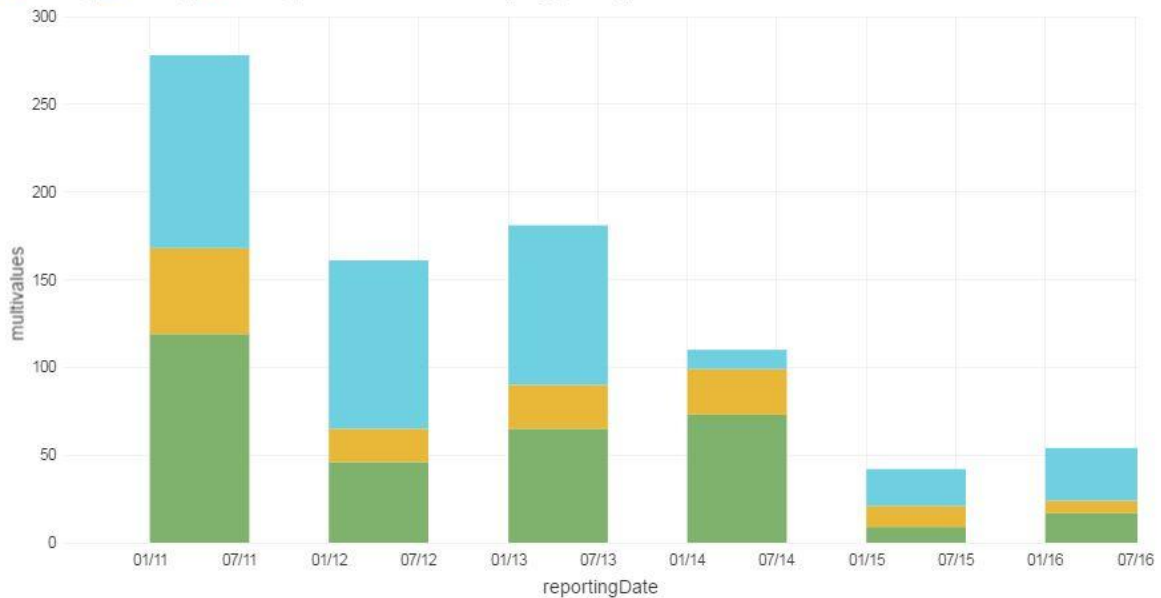
MDv2.1 (green): number of spatial data sets for Annex I that have conformant metadata

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

NUMBER OF SPATIAL DATA SETS THAT HAVE CONFORMANT METADATA PER ANNEXES

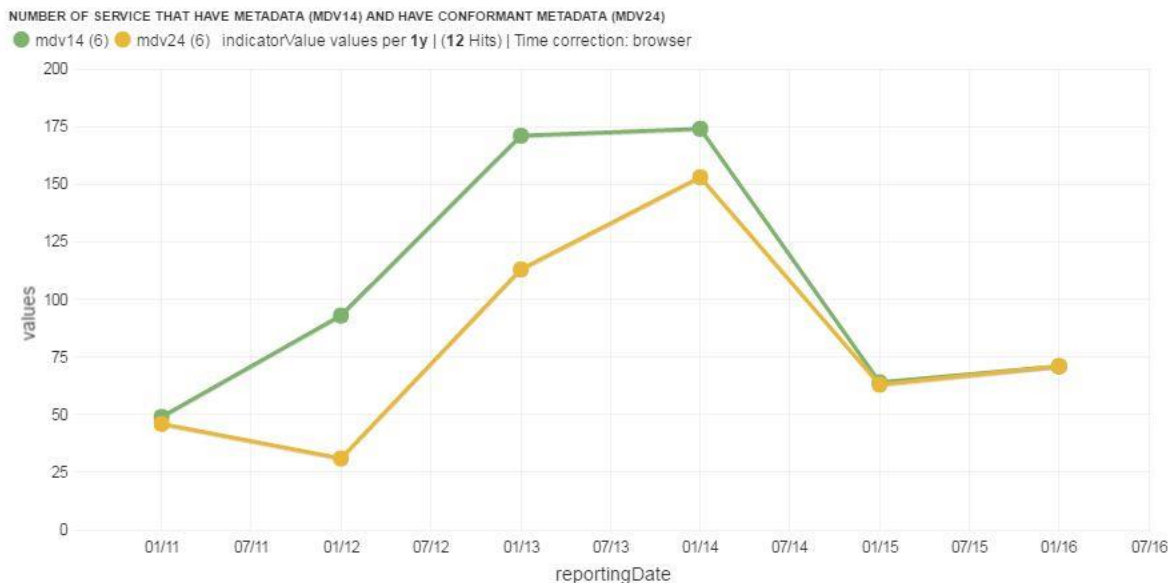
● mdv21 (6) ● mdv22 (6) ● mdv23 (6) indicatorValue multivalues per 1y | (18 Hits) | Time correction: browser



c. Evolution of documented services and conformity of the documentation

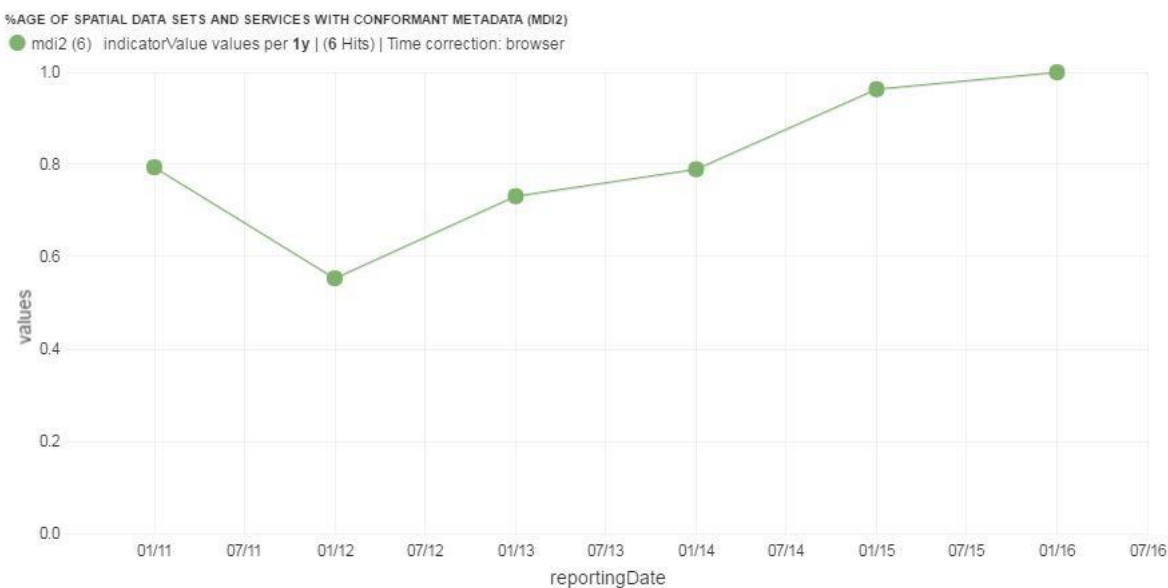
MDv1.4 (green): number of spatial data services that have metadata

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



d. Evolution of the overall conformity of the documented metadata

$MDi2 = (\text{number of spatial data sets for all Annexes that have conformant metadata} + \text{number of spatial data services that have conformant metadata}) / (\text{number of spatial data sets for all Annexes} + \text{number of spatial data services})$



Evaluation of progress for step 2:

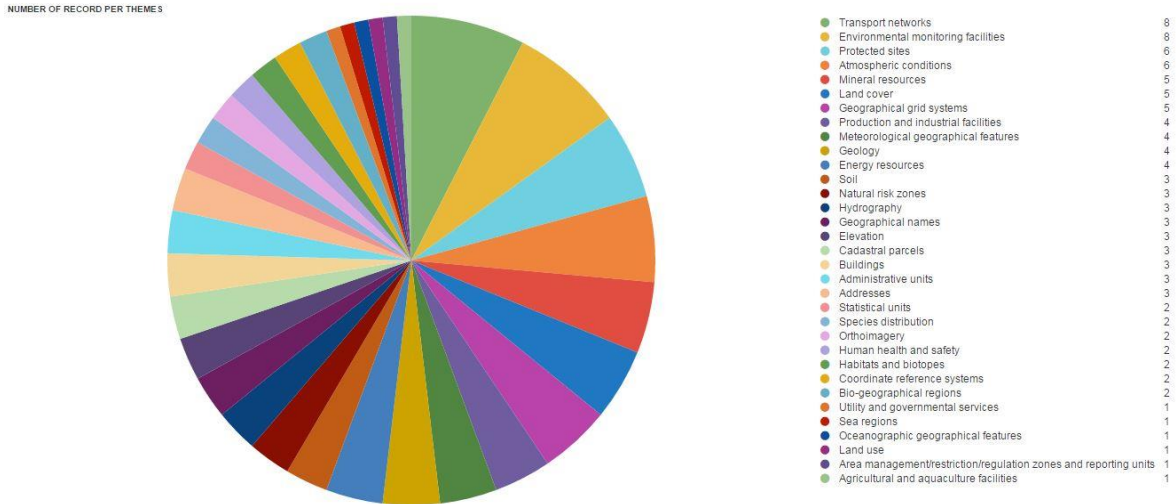
Czech Republic has documented and published metadata through a digital discovery service for 100% (54) of the identified spatial data sets and 100% (71) of the digital services. Overall, 100% of the metadata conforms to the INSPIRE metadata specifications.

It shows a very high level of maturity.

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.



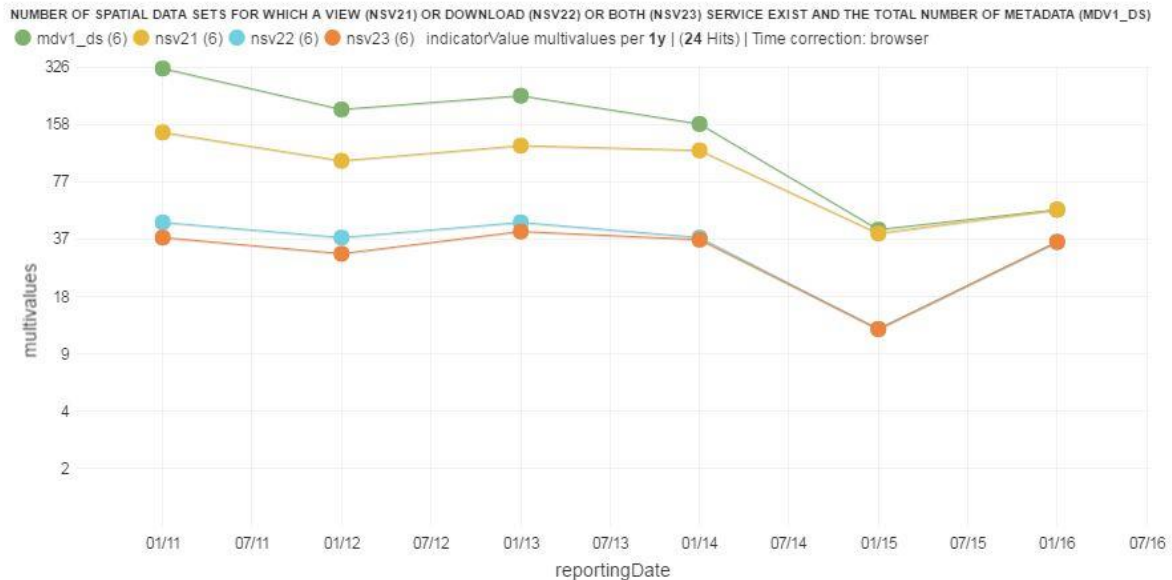
b. Evolution of spatial data made accessible through digital services

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

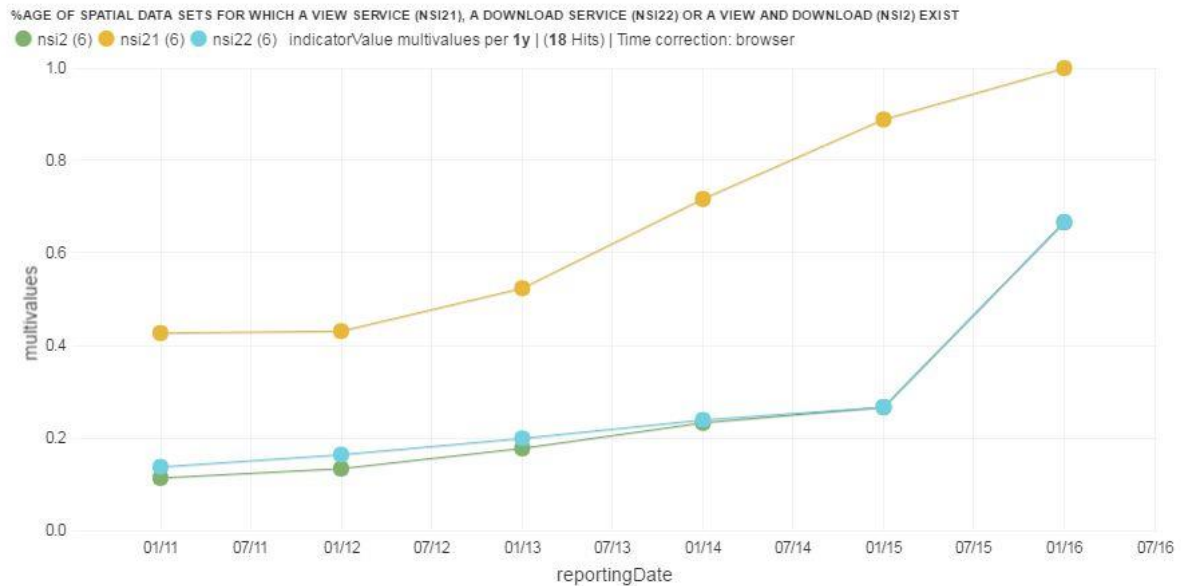
NSv2.3 (orange): number of spatial data sets for which both a view and a download service exists



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



c. Evolution of the conformity of the digital services

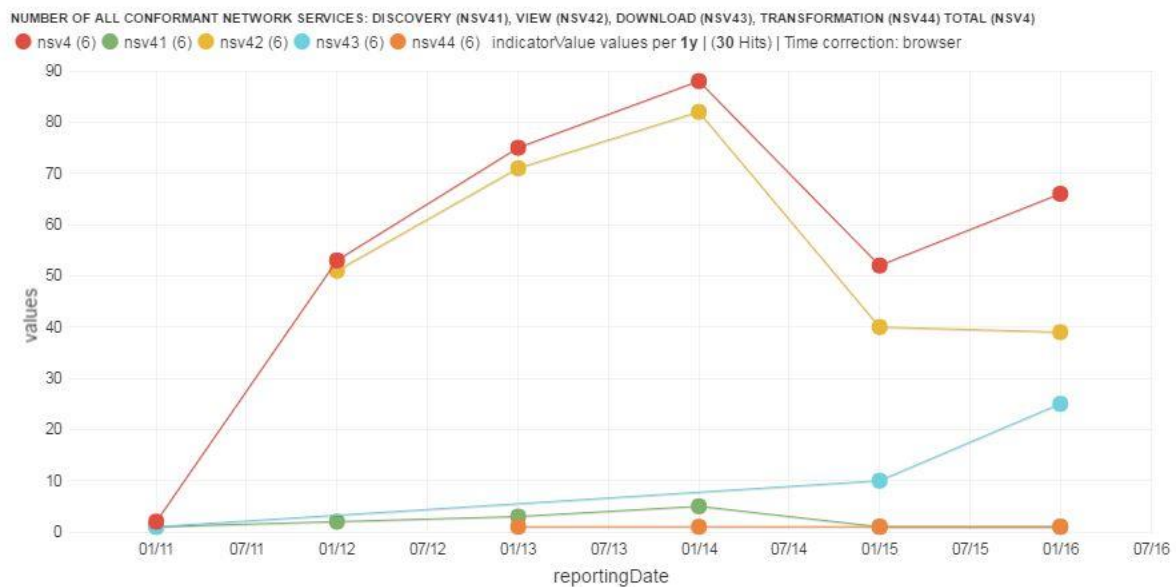
NSv4 (red): number of all conformant network services

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



Evaluation of progress for step 3:

Czech Republic has:

- 100% of its data sets accessible for viewing through a view service;
- 66,67% of its data sets accessible for download through a download service.

92,96% of the available digital services are conform to the INSPIRE network service specifications (66 out of 71).

Czech Republic shows that it has built the necessary capacity and competences to make data accessible through digital INSPIRE network services. Accessibility of datasets through download services should be further improved. The technical conformity of the available services with the INSPIRE network service is very high.

2.4. Interoperability of spatial data sets (step 4)

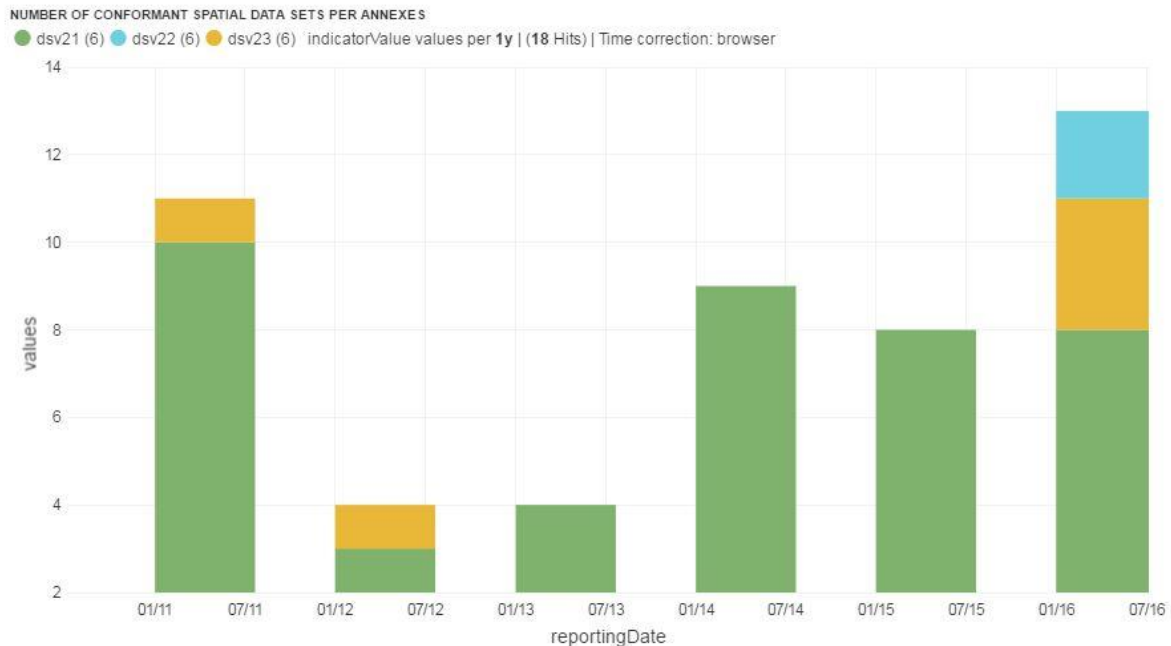
The interoperability of spatial data sets is an outlook on the readiness of Member States to make their spatial data interoperable according to the interoperability specifications laid down in the INSPIRE interoperability implementing regulation ([Commission Regulation \(EU\) No 1089/2010](#)). The deadlines 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:

Czech Republic has reported 13 data sets to be conform to the INSPIRE interoperability specifications in 2015.

We can conclude that Czech Republic has implemented most of requirements for the 2017 deadlines. It progresses or started its preparations for the rest of 2017 and for 2020 data interoperability deadlines.

3. Outlook

Czech Republic has 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)

- **No action foreseen**

b. Data sharing and exchange (1.4)

- By **the end of 2016**, all the National INSPIRE datasets made available at EU geoportal either via download service or as prepared data sets in the e-shop of the National INSPIRE Geoportal will be accompanied with **Basic INSPIRE License** agreed by all the relevant data providers.

c. Metadata (2.2)

- **No action foreseen**

d. Network services (2.3)

- A precise Implementation plan (table) was prepared by KOVIN and agreed by identified responsible provider for each of the INSPIRE theme. (see the Annex to the Action plan). The plan will improve the availability of view and download services by the end 2016 to be fully in line with the INSPIRE official roadmap.

e. Data Interoperability (2.4)

- A precise Implementation plan (table) was prepared by KOVIN and agreed by identified responsible provider(s) for each of the INSPIRE theme. (see the Annex to the Action plan) fitting fully within the INSPIRE official road map

4. Summary - How is Country doing?

INSPIRE key obligation	Overall implementation status and trend	Outlook	<p align="center">Dashboard Legend</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.

Czech Republic 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 yet fully available and implemented. The use and sharing of data has improved, but different licensing approaches still pose a major barrier. The Czech Republic aims at solving existing licensing issues for spatial information by 2020. In this respect, INSPIRE Coordination Committee of the Czech Republic has approved a set of actions aiming at unique licence approach applied on INSPIRE data.

Assessments of monitoring reports issued by Czech Republic and the spatial information that Czech Republic 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. So far, 84 % (27 out of 32 themes relevant for the Czech Republic) of information has been published and the Czech Republic has been constantly working on its commitment to make all necessary data themes available before the end of 2016.

Suggested action

- Critically review the effectiveness of its data policies and amend them, taking 'best practices' into consideration.
- Identify and document spatial data sets related to the missing Annex III themes 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.