Status of implementation of the INSPIRE Directive – 2016 Country Fiches

COUNTRY FICHE Belgium

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 Belgium 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 Belgium representatives.

1. State of Play

A high-level view on the governance, use and impact of the INSPIRE Directive in Belgium. 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 public authority	INSPIRE-cel
Mailing address	p/a Informatie Vlaanderen, Maria Hendrikaplein 70, 9000 Gent, Belgium
Telephone number	+32 9 276 14 80
Fax number	+32 2 553 72 05
E-mail	Ouns.kissiyar@kb.vlaanderen.be
Website address	http://overheid.vlaanderen.be/informatie-vlaanderen www.agiv.be
Contact person	Ouns Kissiyar
Telephone number	+32 9 276 14 80
E-mail	Ouns.Kissiyar@kb.vlaanderen.be
Contact person substitute	Guy Vandamme
Telephone number	+32 2 629 82 30
E-mail	

- Coordination Structure

  - Belgium's institutions are complex; most political power is organised around the need to represent the main cultural communities. Thus Belgium is characterised by a complex system of governance. Indeed Belgium's executive and legislative powers have to a substantive extent been devolved to the regions. The regions (through their parliaments and governments) have sole jurisdiction over transportation, public works, water policy, cultural matters, education, public health, environment, housing, zoning, and economic and industrial policy.

  - This effectively means that four parties are responsible for the implementation of INSPIRE : Brussels Capital Region, the Federal Government, the Flemish Region and the Walloon Region. Each of these parties is responsible for the implementation of INSPIRE for those areas for which it holds jurisdiction

- The INSPIRE Coordination Committee has been set up by all 4 parties responsible for the INSPIRE implementation. This committee was set up in April 2010 through a national cooperation agreement.
- INSPIRE Coordinating Committee is responsible for the coordination between the responsible implementing parties. The Coordinating Committee among other duties, designates the reference version of spatial data sets, conducts negotiations to establish the reference data for each of the themes listed, ensures that satisfactory common arrangements for access, sharing and use are adopted regarding the sharing of spatial data sets and services
- The INSPIRE Coordination Committee developed a common Belgian Action Plan 2016-2020 that in effect offers a consolidated road map for the better implementation of the INSPIRE directive by 2020. This action plan was submitted to the Commission on May 15th 2016.

1.2 Functioning and coordination of the infrastructure

- A National portal providing access to the 4 geoportals will become active in Q2-Q3 2017.

- Each Geoportal aims to act as a centralized point of access to the INSPIRE data under responsibility of the entity. But the data offering on the geoportals is not limited to INSPIRE data.

- For the Brussels Capital Region, the geoportal www.geo.brussels acts since 02/2014 as a centralised point of access to the Brussels geographic information about INSPIRE without centralisation of the metadata or the actual data.

- For the Federal Government services the geoportal www.geo.be is the gateway to the geographic platform of the federal government. It is available in four languages : Dutch, English, French and German. The coordination is in the hands of the National Geographic Institute (NGI/IGN).

- www.geopunt.be has been the gateway to Flemish INSPIRE and other geographical data since early 2013. Information Flanders (formerly AGIV) is responsible for the development and coordination of the different data providers.

- The "Géoportail de la Wallonie" (http://geoportail.wallonie.be) is the centralised point of access to all the Walloon geographic information relating to INSPIRE with centralisation of metadata and network services.

  InfraSIG is the Walloon-SDI which provides access to Walloon geographic information (Walloon Geomatic Decree of 22 December 2010).

  Cooperation between the parties involved in InfraSIG is organized within the Strategic Committee on Geomatics (CSG), appointed by the Walloon Government, which approves its composition and determines its operation.

  Every 3-year, the Walloon Government draws up a strategic geomatic plan (PSGW) which provides direction to the development of the Walloon-SDI. On the basis of the PSGW, the Walloon Government approved in February 2017 the "Plan opérationnel géomatique pour la Wallonie" (POGW) for 2017-2019 which includes specific actions dedicated to the INSPIRE Maintenance and Implementation.

1.3 Usage of the infrastructure for spatial information

- The most widely used aspect of the infrastructure are the services that are often introduced as building blocks into production processes of (private and public) partners.
- A lot of web GIS applications using INSPIRE datasets and services (but not only) exist & they are becoming very popular and appear to be the favourite way for the majority of the users to view or download datasets. **[Relevance]**
- In general, there has been a sharp and clear rise in the use of services in recent years. **[Effectiveness]**
- Several cross-border projects engaged all implementing parties with neighboring countries, sharing data, experiences and knowledge. **[EU-added value]**

1.4 Data Sharing Arrangements

- The measures adopted for sharing data and services between public authorities currently differ widely.
- In the Brussels Capital Region, data-sharing between public authorities is regulated by the ordinance on geographical information, which is being implemented gradually. More and more data are available through an Open data license or other similar licenses.
- The Federal Government Services share their data and services free of charge amongst themselves and the regional administrations. These can only use the data for internal purposes.
- Within the Flemish Region open data is the default. The Flemish region aims at providing at least 3 * open data (Tim Berners-Lee open data model). This is meant to support its aim to be an open administration fostering transparency and participation.
- For the Walloon region different agreements for cooperation and data sharing have been concluded with administrations (e.g. federal administrations, Fédération Wallonie-Bruxelles) and public bodies (e.g. NGI, managers of information on cable and pipes).
Furthermore, in order to extend and facilitate the access and use of the Walloon administration's data to a wider end-users panel, a simplification of conditions of access and use have been generalized to all SPW's data.
All the public authorities as well as for the actors cooperating with the administration can access these data free of charge by subscribing to a simple license which specifies the rights and limits of use. Sharing data via these channels already occurs extensively between regional and federal public authorities of Belgium (SPF, Regions, Provinces and Municipalities) but also at European level (cross-border regions).
Data sharing was greatly facilitated for citizens and the private sector. However, it is not yet Open Data. On 28 April 2016, the Walloon government validated the "Open Data" decree.
- A common agreement (18/04/2014) between the Brussels region, the Federal Services, the Flemish region and the Walloon region sets up a coordination structure for patrimonial information so that it can be shared freely amongst all levels of administration.

1.5 Costs and Benefits

- As most parties do not view INSPIRE as an independent infrastructure for spatial information, but rather as a component in the ongoing development of common public sector eGovernance, cost/benefit analysis of the INSPIRE directive is difficult.
- For the period up to 2015 the majority of the costs for implementing INSPIRE have been incurred by the data providers. It is expected that as the investments have been made to build up the infrastructure the next period (2016-2019) will see lower costs that will predominantly be dominated by the costs related to maintenance and management of the existing infrastructure
- It is expected that the harmonization of the datasets will incur a significant cost for the data providers in the period 2016-2020. Most often the data providers lack a clear business case for this harmonization as the benefits are situated at another (rather international) level.
- Benefit: the convergence of the efforts to maintain (or setup) the SDI's at the different administrative levels of the Belgian state assuring the same structure, quality and availability of geodata, stimulating a number of developments in the geographic information domain and contributed to the production and open distribution of high-quality geographic information. **[Efficiency]**

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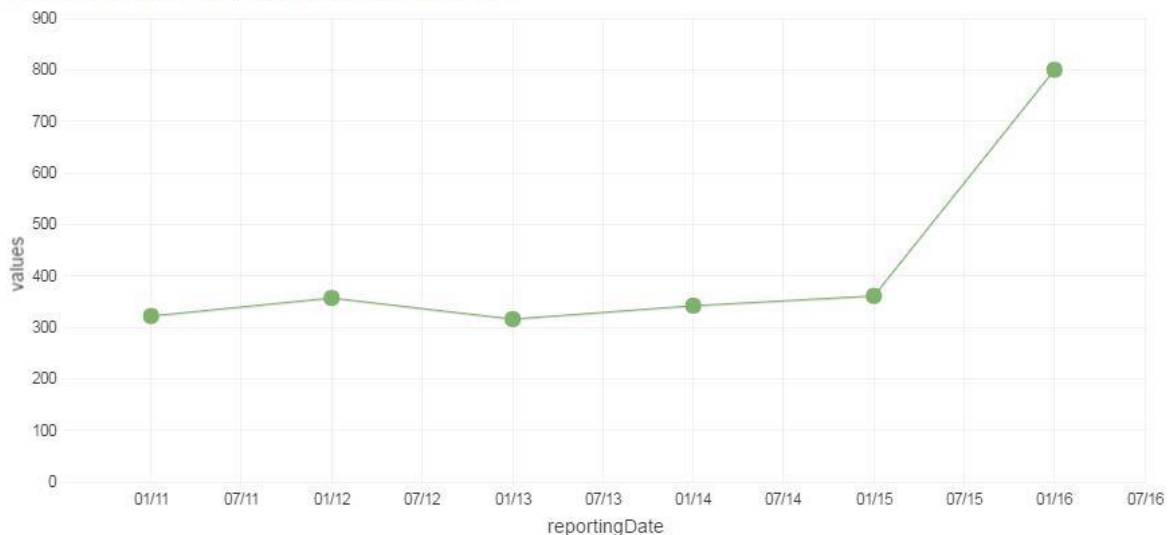
2.1. Identification of spatial data with relevance to the environment (step 1)

a. Evolution of the data offering
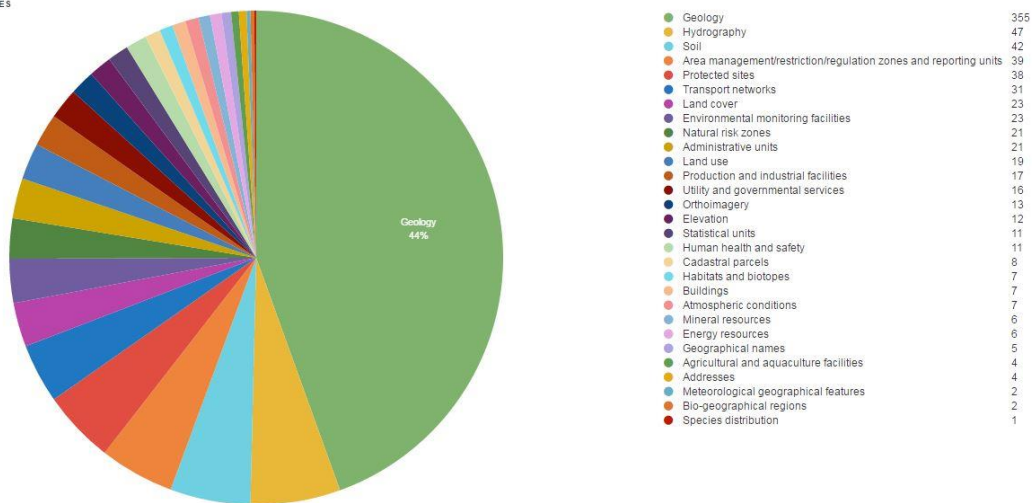
DSv_Num: number of spatial data sets for all Annexes

NUMBER OF SPATIAL DATA SETS FOR ALL ANNEXES (DSV_NUM)

NUMBER OF RECORD PER THEMES

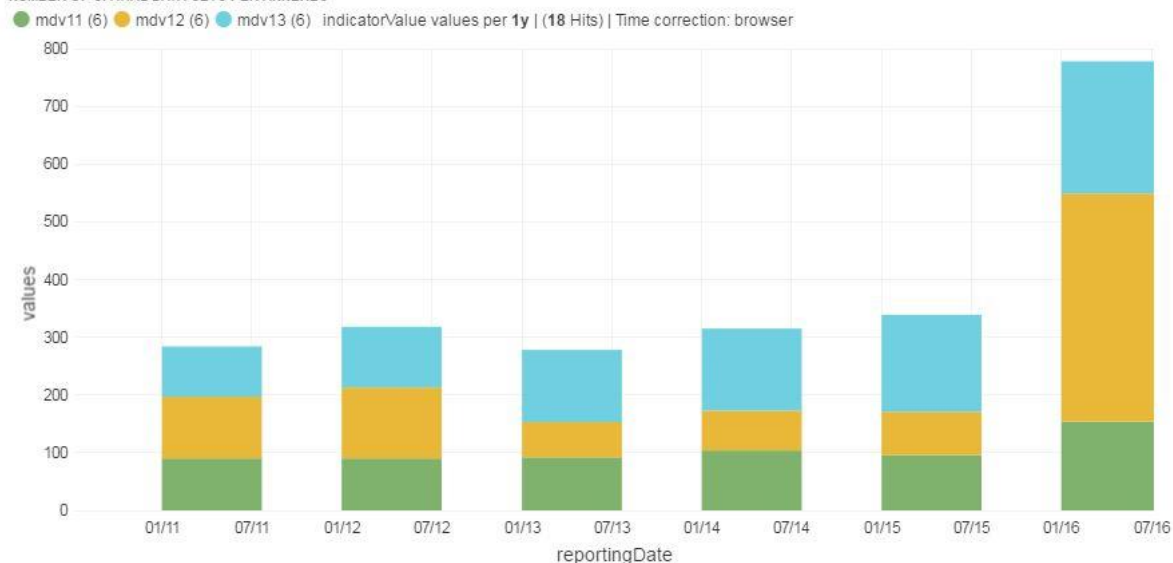|	
● Geology	355
● Hydrography	47
● Soil	42
● Area management/restriction/regulation zones and reporting units	39
● Protected sites	38
● Transport networks	31
● Land cover	23
● Environmental monitoring facilities	23
● Natural risk zones	21
● Administrative units	21
● Land use	19
● Production and industrial facilities	17
● Utility and governmental services	16
● Orthoimagery	13
● Elevation	12
● Statistical units	11
● Human health and safety	11
● Cadastral parcels	8
● Habitats and biotopes	7
● Buildings	7
● Atmospheric conditions	7
● Mineral resources	6
● Energy resources	6
● Geographical names	5
● Agricultural and aquaculture facilities	4
● Addresses	4
● Meteorological geographical features	2
● Bio-geographical regions	2
● Species distribution	1

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

NUMBER OF SPATIAL DATA SETS PER ANNEXES

● mdv11 (6) ● mdv12 (6) ● mdv13 (6) indicatorValue values per **1y** | (**18 Hits**) | Time correction: browser

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Evaluation of progress for step 1:

Belgium has identified a total of 800 spatial data sets with relation to the themes listed in the INSPIRE annexes.

Additional spatial data sets have been identified in 2015 under all data themes. A lot of relevant spatial data sets have already been identified for the different data themes. Further improvement is expected by identifying and documenting spatial data sets required under the existing reporting and monitoring regulations of EU environmental law.

A selection of the reference datasets is under way and will result in a lower but more relevant number of data sets.

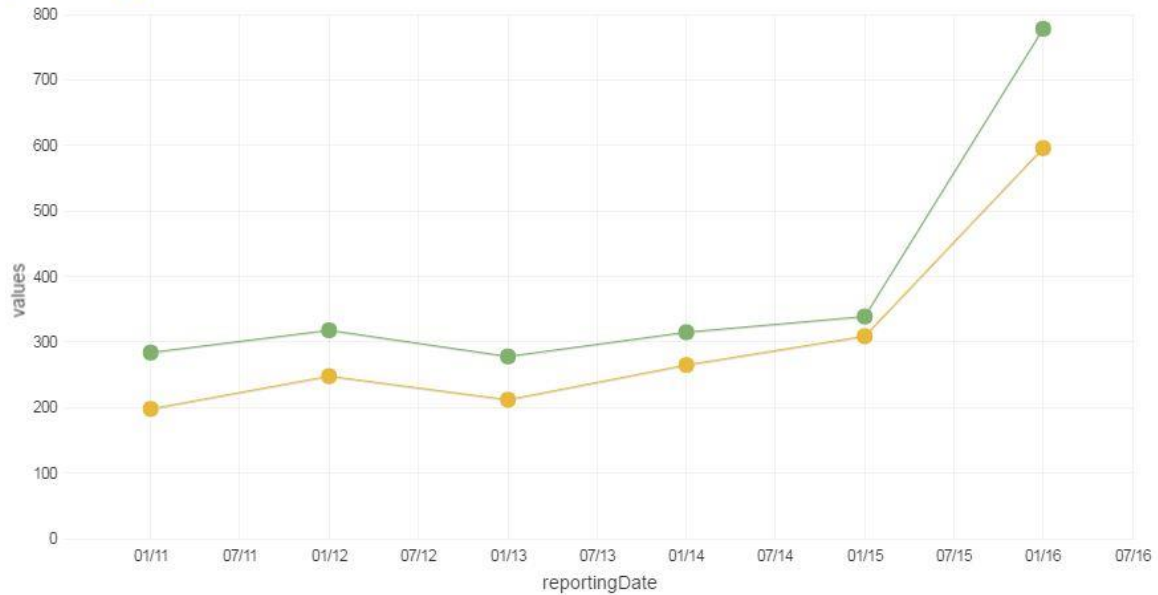## 2.2 Documentation of the data (metadata) (step 2)

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
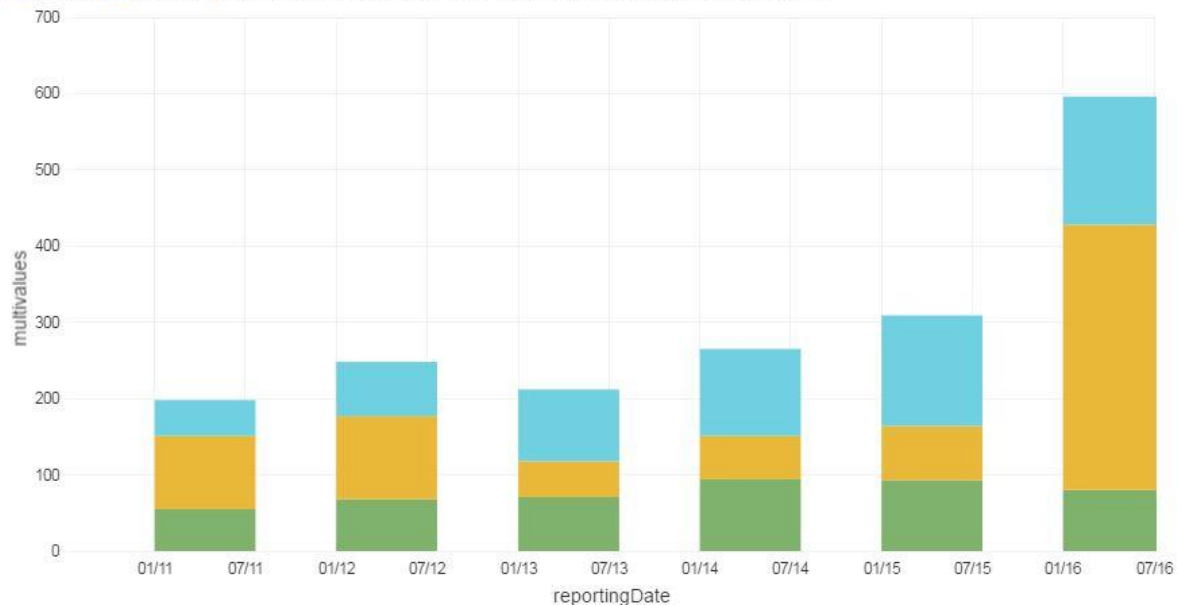

b. Documented data per annex in 2015

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

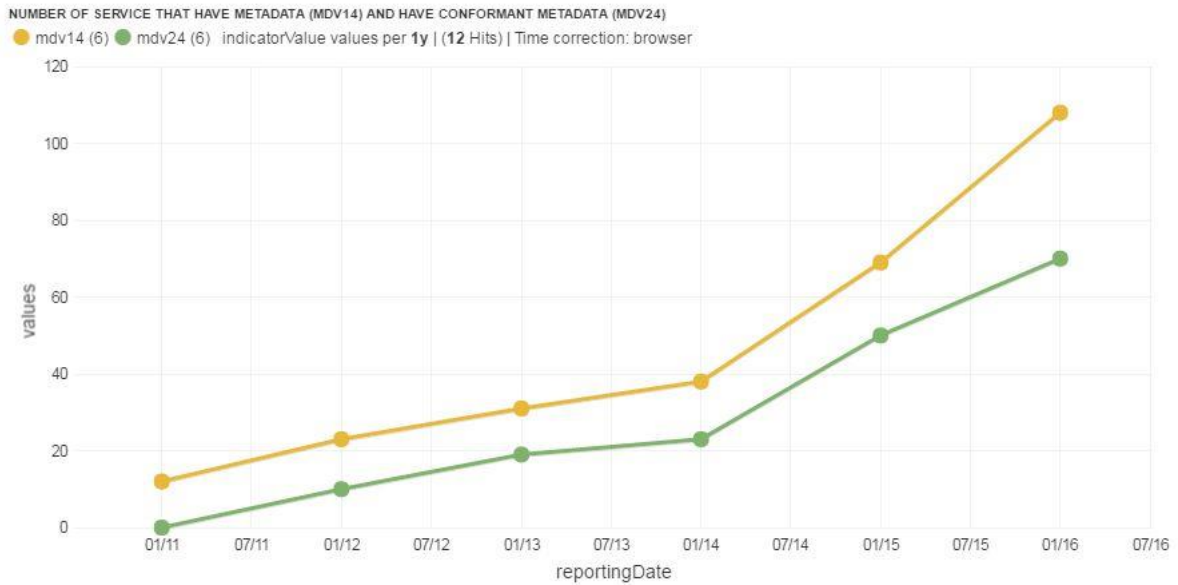NUMBER OF SPATIAL DATA SETS THAT HAVE CONFORMANT METADATA PER ANNEXES

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

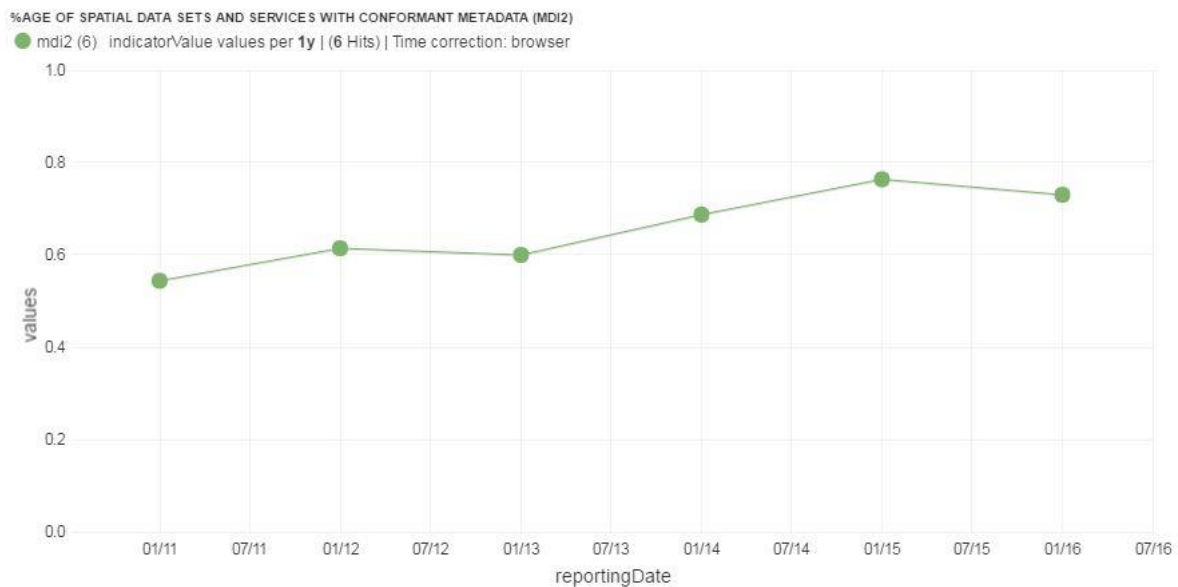### c. Evolution of documented services and conformity of the documentation

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

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

NUMBER OF SERVICE THAT HAVE METADATA (MDV14) AND HAVE CONFORMANT METADATA (MDV24)
● mdv14 (6) ● mdv24 (6)   indicatorValue values per **1y** | (**12** Hits) | Time correction: browser

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)

%AGE OF SPATIAL DATA SETS AND SERVICES WITH CONFORMANT METADATA (MDI2)
● mdi2 (6)   indicatorValue values per **1y** | (**6** Hits) | Time correction: browser

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Evaluation of progress for step 2:
Belgium has documented and published metadata through a digital discovery service for 97,25% (778 out of 800) of the identified spatial data sets and 96,43% (108 out of 112) of the digital services. Overall conformity of the Belgium metadata to the INSPIRE metadata specifications 73,02 %
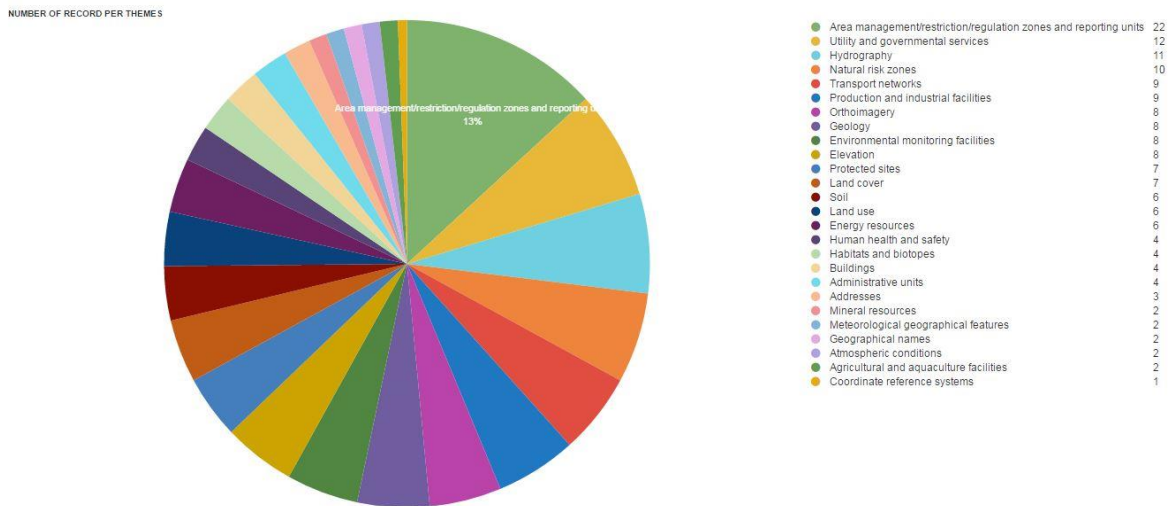
It shows a good level of maturity. However, conformity should be further improved.

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.
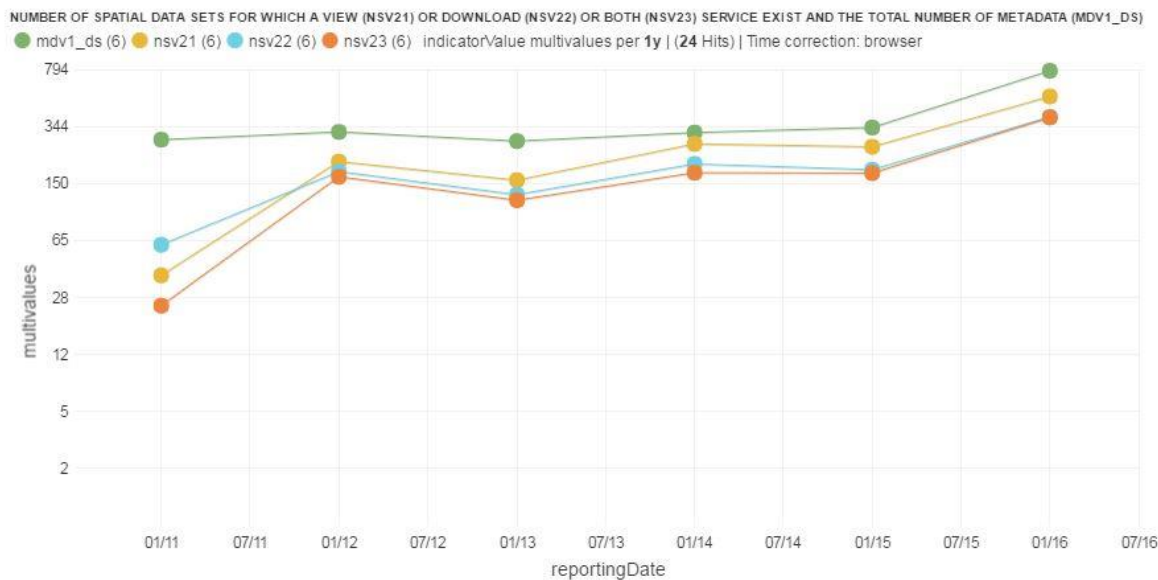

NUMBER OF RECORD PER THEMES

Theme	Count
Area management/restriction/regulation zones and reporting units	22
Utility and governmental services	12
Hydrography	11
Natural risk zones	10
Transport networks	9
Production and industrial facilities	9
Orthoimagery	8
Geology	8
Environmental monitoring facilities	8
Elevation	8
Protected sites	7
Land cover	7
Soil	6
Land use	6
Energy resources	6
Human health and safety	4
Habitats and biotopes	4
Buildings	4
Administrative units	4
Addresses	3
Mineral resources	2
Meteorological geographical features	2
Geographical names	2
Atmospheric conditions	2
Agricultural and aquaculture facilities	2
Coordinate reference systems	1

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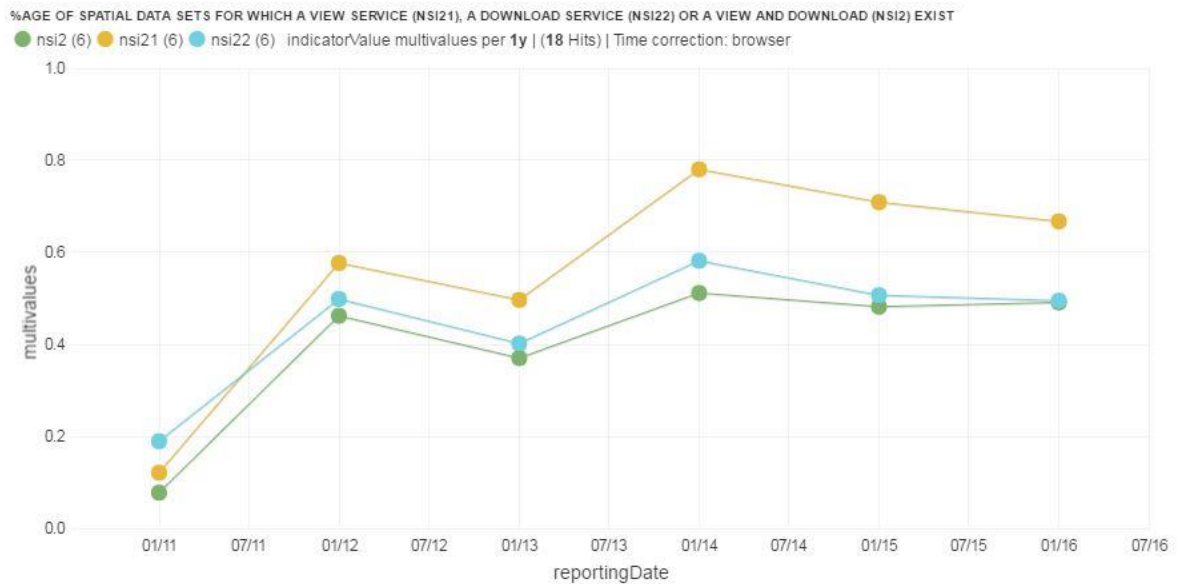NSv2.3 (orange): number of spatial data sets for which both a view and a download service exists

NUMBER OF SPATIAL DATA SETS FOR WHICH A VIEW (NSV21) OR DOWNLOAD (NSV22) OR BOTH (NSV23) SERVICE EXIST AND THE TOTAL NUMBER OF METADATA (MDV1_DS)
● mdv1_ds (6) ● nsv21 (6) ● nsv22 (6) ● nsv23 (6) indicatorValue multivalues per **1y** | (**24** Hits) | Time correction: browser

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 (6) ● nsi21 (6) ● nsi22 (6)   indicatorValue multivalues per **1y** | (**18** Hits) | Time correction: browser

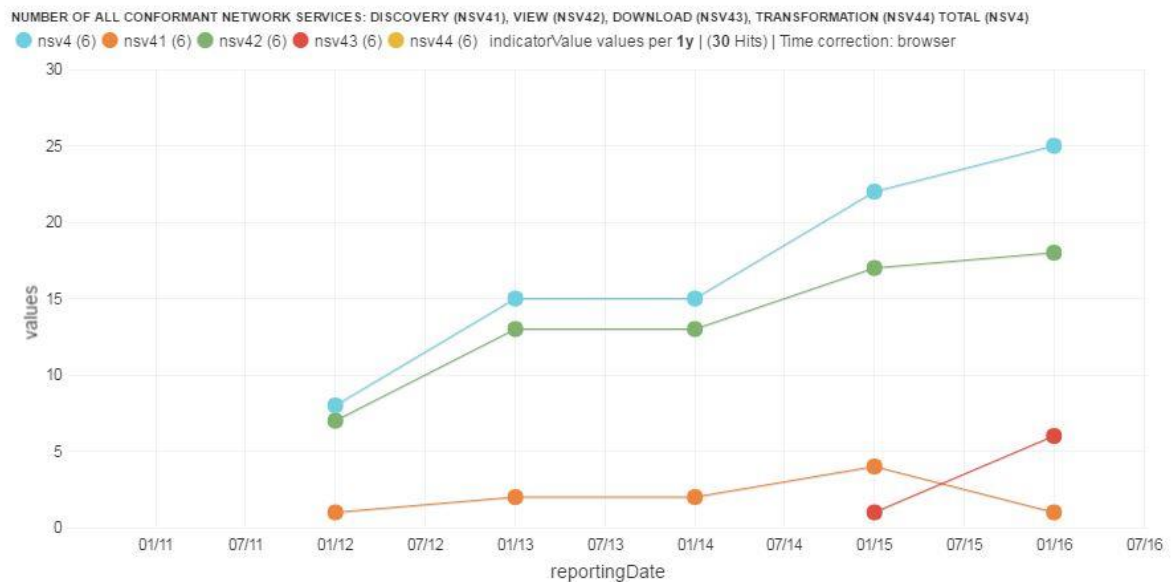## c. Evolution of the conformity of the digital services

NSv4 (blue): number of all conformant network services

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

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

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

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

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

● nsv4 (6) ● nsv41 (6) ● nsv42 (6) ● nsv43 (6) ● nsv44 (6)   indicatorValue values per **1y** | (**30** Hits) | Time correction: browser

Evaluation of progress for step 3:

Belgium has:

- 66,75% of its data sets accessible for viewing through a view service;

- 49,50% of its data sets accessible for download through a download service.

High number of the available digital services are conform to the INSPIRE network service specifications (70 %).

Belgium 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 high.
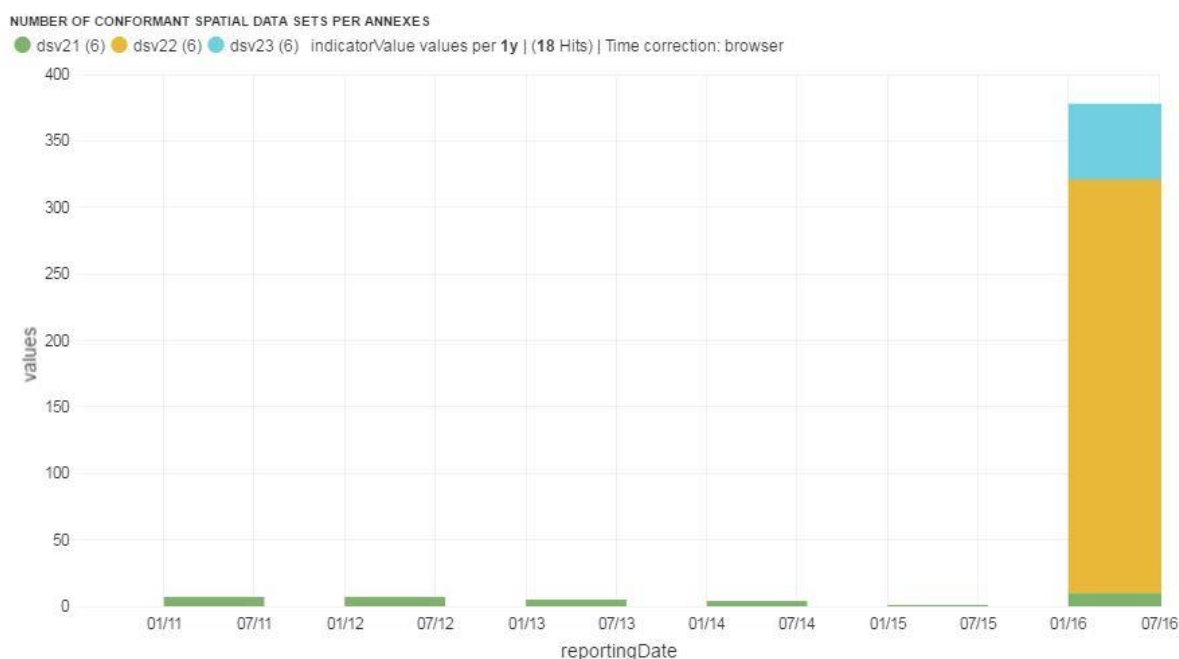
Differences remain between the implementing parties resulting in a somewhat mixed overall image.

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

NUMBER OF CONFORMANT SPATIAL DATA SETS PER ANNEXES

● dsv21 (6) ● dsv22 (6) ● dsv23 (6)   indicatorValue values per **1y** | (**18 Hits**) | Time correction: browser

Evaluation of progress for step 4:

Belgium reported 378 data sets to be conform to the INSPIRE interoperability specifications in 2015.

We can conclude that Belgium started its preparations for the 2017/2020 data interoperability deadlines. Very significant progress could be seen in period 2015 to 2016.

3. Outlook

Belgium has critically reviewed their INSPIRE implementation and provided an action plan in 2016 for the period 2016-2020 to remediate existing implementation issues and further improve the overall conformity of the implementation.

Action plan is the result of the intense cooperative efforts within the Framework of the Coordination Committee INSPIRE (which coordinates and harmonises the implementation of INSPIRE in Belgium). Detailed actions and expected results are in the Action Plan, together with Table of actions, deadlines and action taken. Only main areas of actions are listed here:

a. Coordination (1.1; 1.2)

- **All responsible entities have approached known data providers and asked whether they do have any (environmental) datasets that could fall under the INSPIRE directive.**
- Inquiry and Identification of missed datasets.
- Adding identified missing datasets to the SDI.

b. Data sharing and exchange (1.4)

- **To encourage the establishment of framework agreements, open licenses and minimum or no charge license fees will be standardized for the federal government services**

c. Metadata (2.2)

- One of the main reasons for the non-conformity of MD is the reference coordinate system used in Belgium that is not ETRS conform; **a work group has been convened** to make and coordinate the necessary decisions in order to conform to the INSPIRE requirements.
- **All identified datasets and services will get INSPIRE compliant metadata, where currently missing.**

d. Network services (2.3)

- **Data providers have been polled as to their plans to provide missing network services** at the same time as they were informed about the bilateral meeting, and the request trickling down to them.

e. Data Interoperability (2.4)

- **Study related to the harmonisation of datasets is ongoing** in order to estimate the cost and the difficulty of data harmonization.

INSPIRE key obligation	Overall implementation status and trend	Outlook	Dashboard Legend
Ensure effective coordination	☺↗	🟢	**Implementation Status:** ☺: implementation of this provision is well advanced or (nearly) completed. Outstanding issues are minor and can be addressed easily.
Data sharing without obstacles	☺↗	🟢	☺: 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.
Step 1: Identify spatial datasets	☺↗	🟢	☹: implementation of this provision is falling significantly behind or has not even started. Serious efforts are necessary to close implementation gap.
Step 2: Document datasets (metadata)	😐↗	🟢	**Trend:** ↗: the trend of the implementation is positive.
Step 3: Provide services for identified spatial datasets (discovery, view, download)	😐↗	🟢	→: the trend of the implementation is neutral. ↘: the trend of the implementation is negative.
Step 4: Make spatial datasets interoperable by aligning them with the common data models.	😐↗	🟢	**Outlook:** 🟢: clear and targeted actions have been identified which allow reaching the objectives of the legislation in an effective way. 🟡: 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. 🔴: no actions have been identified to overcome identified implementation gaps.

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.

Belgium 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 or implemented. Belgium has no common model for data sharing for the different administrative levels. Efforts and progress have been made on the different levels. Most regional data has been made accessible under regional open data licenses, but the national coordination of the different data-sharing policies still remains an obstacle. It needs to be highlighted that these policies are set by each implementing party individually. As such ¾ of the implementing parties have in effect an open data approach, whereas the remaining ¼ is hampered in introducing this approach by legislation stipulating detailed financing obligations through the sale of data. Work is being carried out to remediate this situation. Assessments of monitoring reports issued by Belgium and the spatial information that Belgium 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 identification of the missing spatial information and the links with environmental data required to be made available under the existing reporting and monitoring regulations of EU environmental law is under way.

Suggested action

- Critically review the effectiveness of Belgium's 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.