



# Status of implementation of the INSPIRE Directive – 2016 Country Fiches

## COUNTRY FICHE Netherlands

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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 Netherlands 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 the Netherlands representatives.

## 1. State of Play

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

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

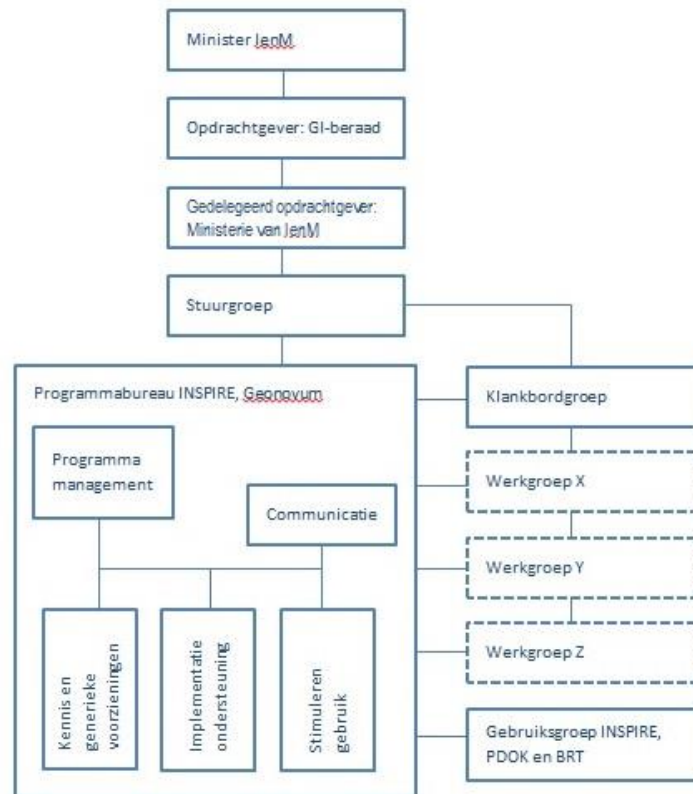
- **[Effectiveness]** How successful has the INSPIRE implementation been in achieving, progressing towards its objectives; progress made, gaps, what factors have influenced or why it has not yet been achieved regarding availability of services, data interoperability, sharing, data policy obstacles
- **[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	Ministry of Infrastructure and the environment
Contact information:	
Mailing address	Plesmanweg 1-6 2597 JG DEN HAAG
Telephone number	(+ 31 70) 4560000
Fax number	(+ 31 70) 4561111
Email address	
Organisation's website URL	<a href="http://www.rijksoverheid.nl/ministeries/ienm">http://www.rijksoverheid.nl/ministeries/ienm</a>
Contact person (if available)	Mr Noud Hooyman
Telephone number	+ 31 6 11 35 13 33
Email address	<a href="mailto:Noud.Hooyman@minienm.nl">Noud.Hooyman@minienm.nl</a>
Contact person — substitute (if available)	Christiaan de Jong
Telephone number	+ 31 6 52740152
Email address	<a href="mailto:christiaan.de.jong@minienm.nl">christiaan.de.jong@minienm.nl</a>

- Coordination Structure



- Progress

- The coordination structure for the INSPIRE implementation over the past 3 years was broadly unchanged.
- Much attention has been paid to the last period with jointing of INSPIRE within the Dutch Government important developments such as the digital system for Omgevingswet (Environment Act) and, most recently, the make it work (MiW) programme, in which the connection with the Commission and other Member States in monitoring of environmental directives. **[Coherence]**
- The Dutch Ministry of Infrastructure and the environment is also participated in an ISA (Interoperability Solutions for European Public Administrations) working group. **[EU-added value]**
- The core of the INSPIRE programme of quality assurance in the Netherlands is formed by the functioning of a sounding board. In addition to the INSPIRE data providers are also (future) users, universities and industry.
- In the absence of set rules for metadata and services, which must be validated, it is not possible to guarantee the quality or certification services.

## 1.2 Functioning and coordination of the infrastructure

- INSPIRE is in the vision paper Geosamen (the Netherlands' views on the future of the geosector) seen as an important building block of the GEO data infrastructure. **[Efficiency]**
- INSPIRE is part of the Dutch geo-community, and is embedded in the Dutch geo-information infrastructure. Thus far the implementation of INSPIRE has followed a pragmatic approach, aiming at satisfying the legal obligations, using base registries and their national services.
- The Dutch approach to assign to the data themes only custodians for the most suitable data sets has proven to be efficient: it has limited the burden of implementation and the quality is relatively high. **[Effectiveness]**
- There has been a lot of attention to connecting INSPIRE to other important developments such as the "Digitale Stelsel Omgevingswet" (Digital System for the Environmental law) and the Make it Work programme, in which the links are made with environmental reporting. This is in line with the activities already started with the air and marine pilot projects. **[Coherence]**
- INSPIRE has been important for the visibility, quality and availability of geospatial information

### 1.3 Usage of the infrastructure for spatial information

- The use of services to facilitate and increase a number of tools have been developed, such as the Dutch qgis plugin to INSPIRE and the INSPIRE data datagids (<http://inspiredatagids.nl/>). Services are also used in many applications and that without direct intervention of the data provider
- Open geodata, automatically from the National Georegister by delivered to the open data portal. Half of the open data in the Netherlands is geodata.
- The use of INSPIRE data and services to facilitate and increase in 2015. **[Efficiency]**
- The Netherlands, along with Belgium, Germany and England, organised powered by the 'INSPIRE' conference on 4 and 5 March 2013 in Brussels. This conference has helped to highlight the challenges still ahead in order to INSPIRE data for different purposes can be used across borders. **[EU-added value]**

### 1.4 Data Sharing Arrangements

- By the open data policy for most datasets removed barriers to re-use. The datasets that fall under the INSPIRE are legally and economically accessible to all parties. **[Effectiveness]**
- In 2014 the the Creative Commons license has been approved for use. It was agreed to make use of geo-information for the conditions of use with creative commons, except where this is not possible.

### 1.5 Costs and Benefits

- After six years of implementation, the costs are higher than were assumed in 2009. This is due to the lack of experience of implementation back in 2009, and the continuing complexity. The benefits are, as was the case in 2009, still difficult to quantify, but the qualitative and strategic benefits are no doubt significant. **[Efficiency]**
- INSPIRE is proving its value but in the coming years the demand side should get a stronger focus, for instance by linking INSPIRE to the environmental reporting obligations. This is in line with the Dutch actions that are needed to close the implementation gaps, in particular for Annex III data themes.
- There will have to be an active quantification and management of the benefits to gain better insights in the realized benefits for citizens, businesses, and administrations.

## 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 Netherlands 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.

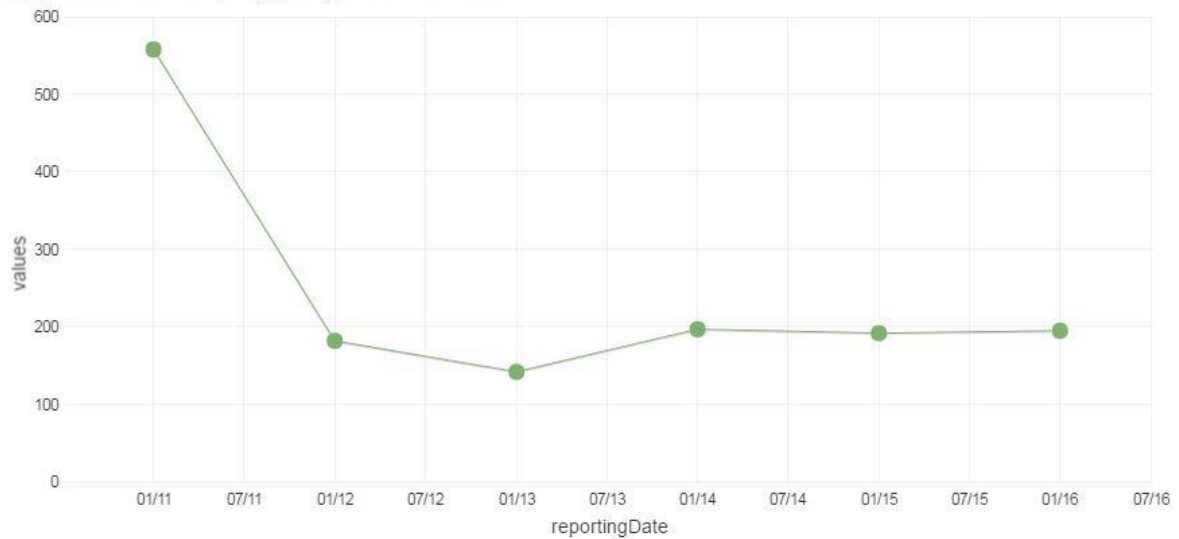
## 2.1. Identification of spatial data with relevance to the environment (step 1)

### a. Evolution of the data offering

DSv\_Num: number of spatial data sets for all Annexes

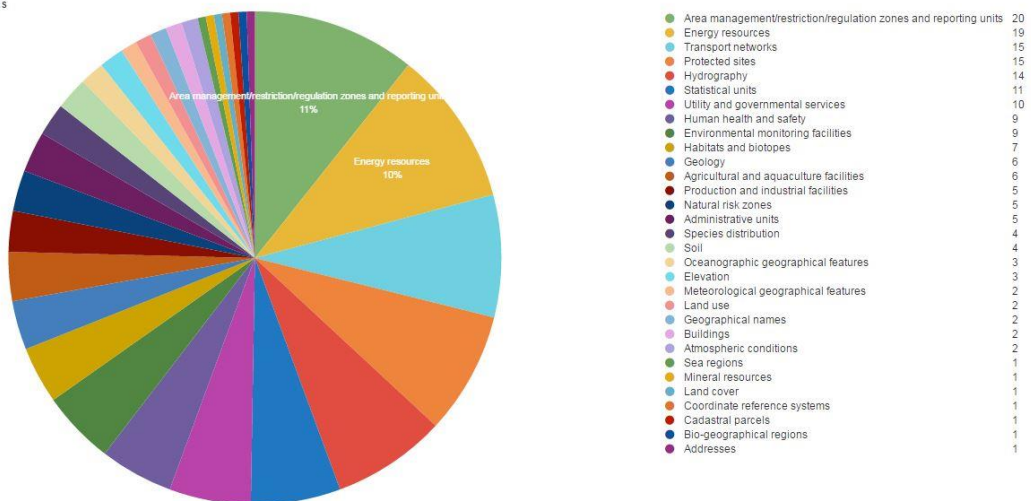
NUMBER OF SPATIAL DATA SETS FOR ALL ANNEXES (DSV\_NUM)

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



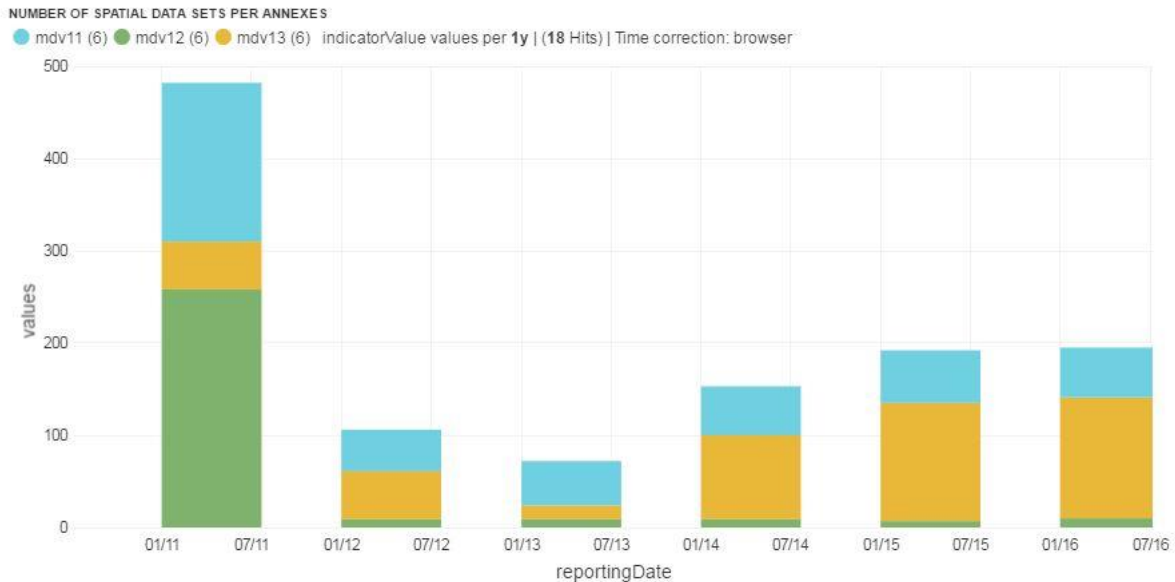
### b. Data sets made available per INSPIRE theme in 2015

NUMBER OF RECORD PER THEMES



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

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

**Netherlands has identified a total of 195 spatial data sets with relation to the themes listed in the INSPIRE annexes.**

The number of identified spatial data sets is more or less constant since 2014. A lot of relevant spatial data sets have already been identified for the different data themes. However, the identification still seems incomplete and Netherlands could further improve by identifying and documenting spatial data sets required under the existing reporting and monitoring regulations of EU environmental law.

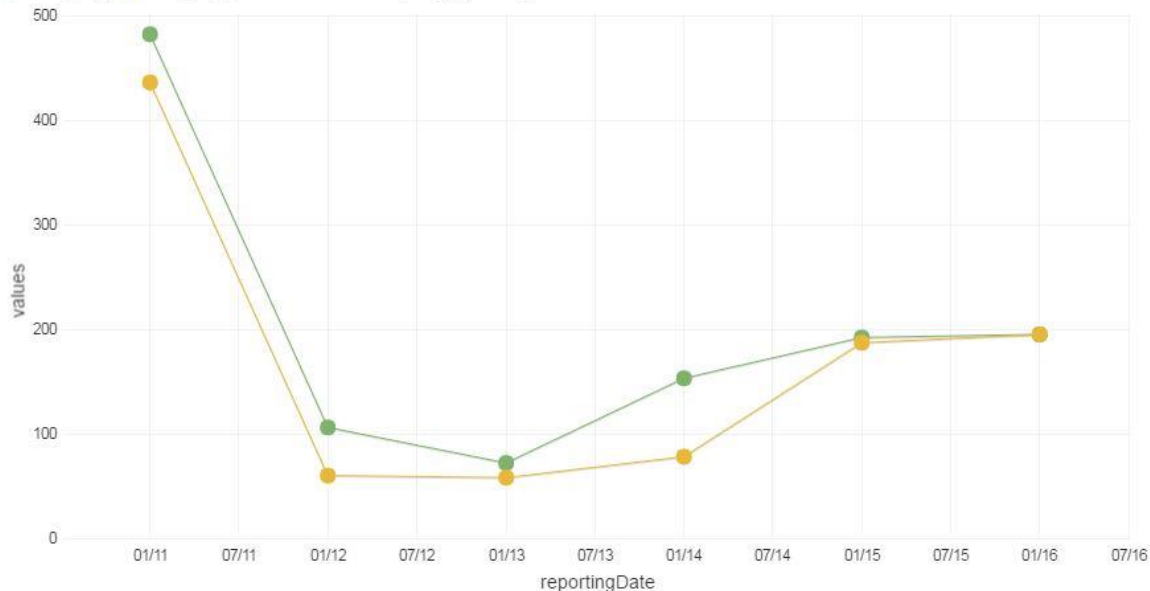
## 2.2 Documentation of the data (metadata) (step 2)

### 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

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



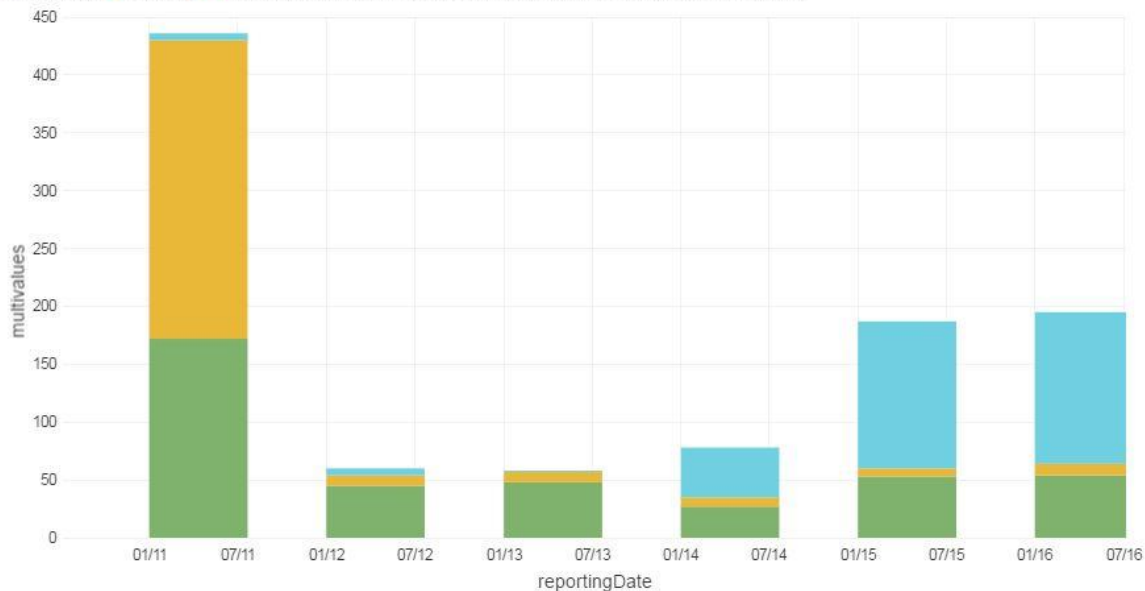
### b. Documented data per annex in 2015

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

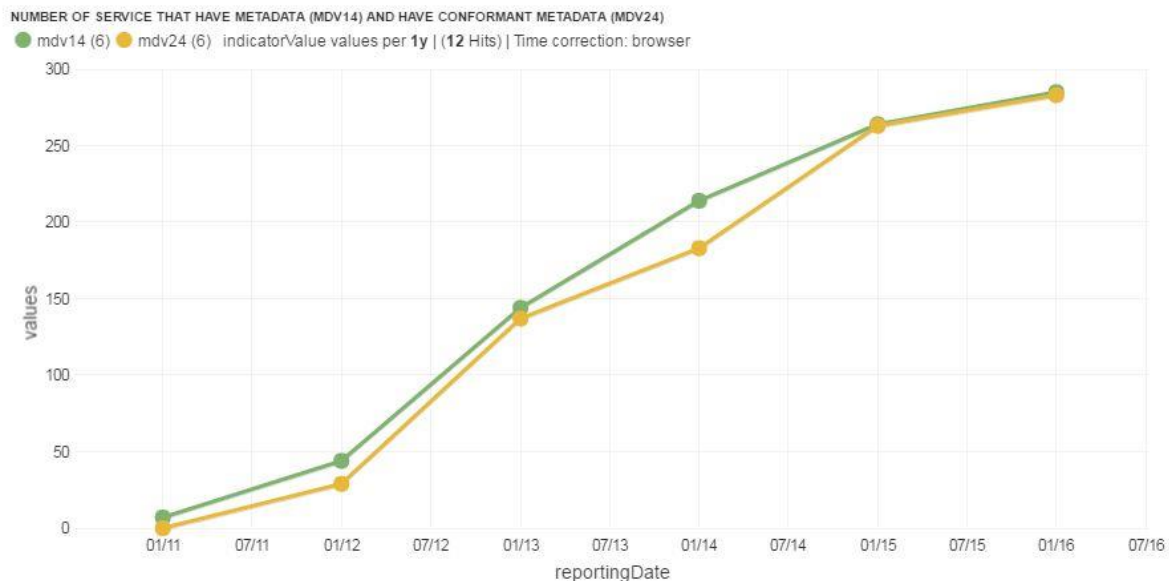
NUMBER OF SPATIAL DATA SETS THAT HAVE CONFORMANT METADATA PER ANNEXES  
 ● mdv21 (6) ● mdv22 (6) ● mdv23 (6) indicatorValue multivalues per 1y | (18 Hits) | Time correction: browser



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

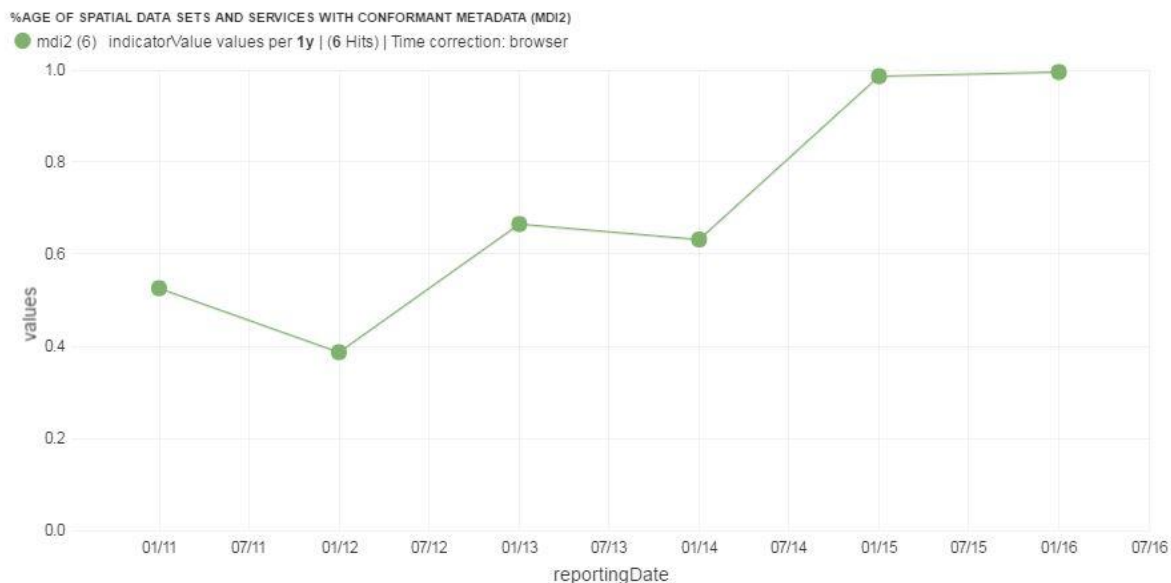
MDv1.4 (green): number of spatial data services that have metadata

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:

**Netherlands has documented and published metadata through a digital discovery service for 100% of the identified spatial data sets and 100% of the digital services. Overall, 99,58% of the metadata conforms to the INSPIRE metadata specifications.**

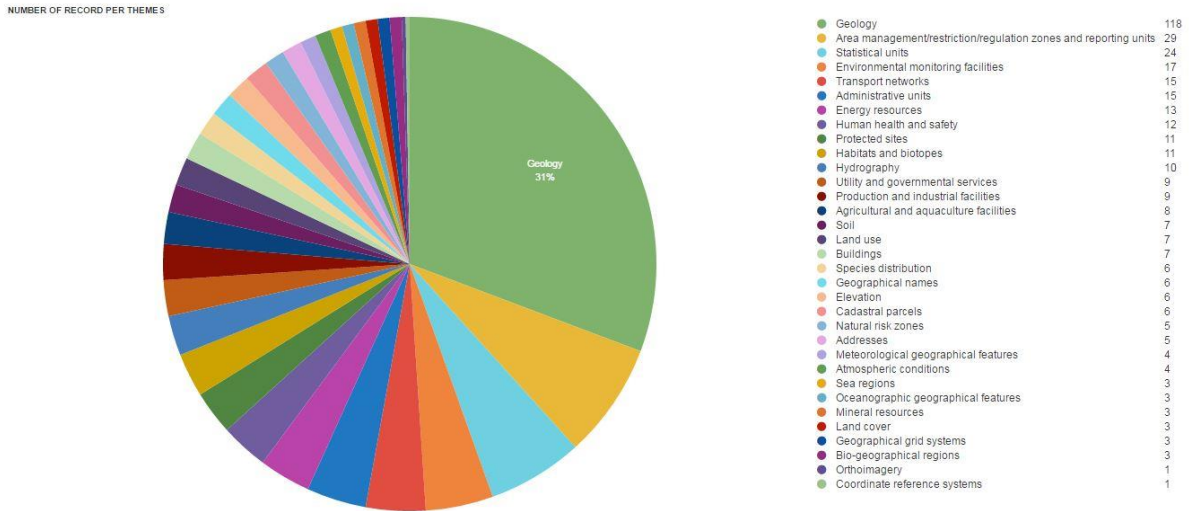
It shows a very high level of maturity.



## 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.



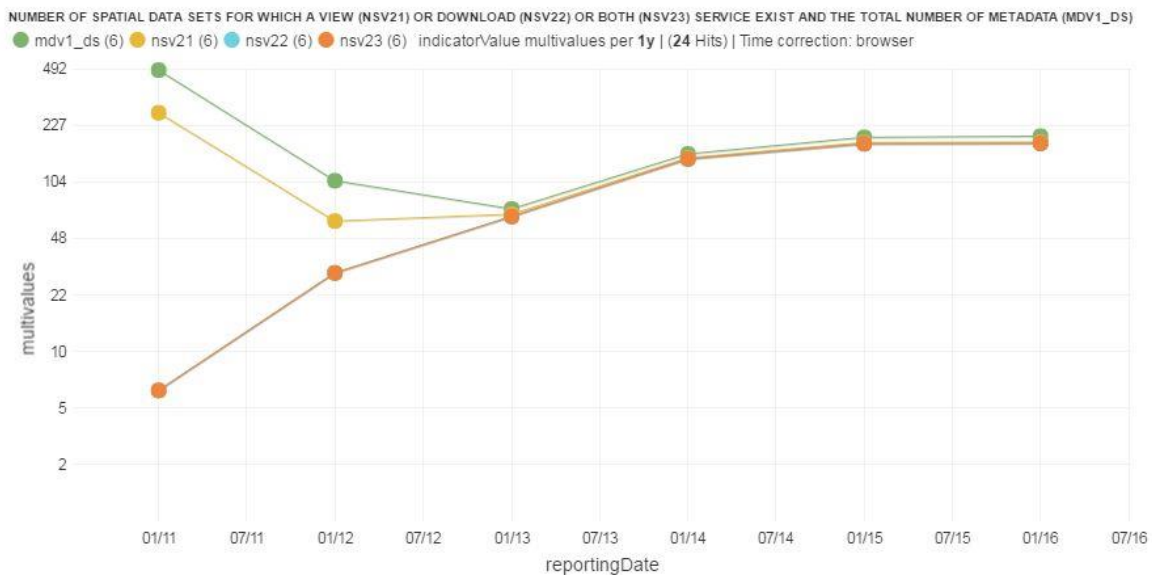
### b. Evolution of spatial data made accessible through digital services

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

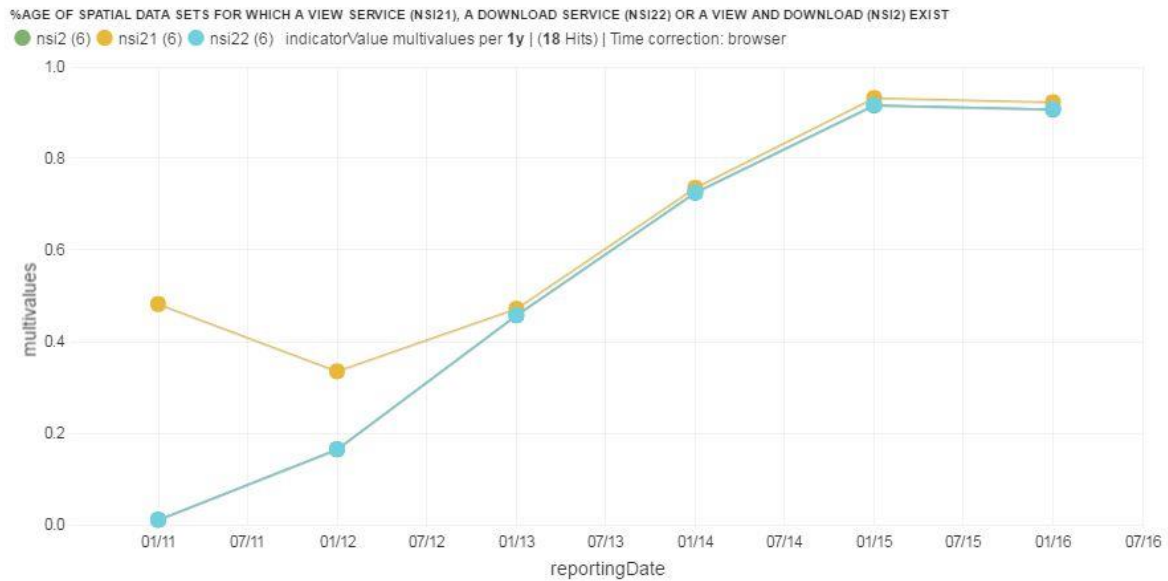
NSv2.3 (orange): number of spatial data sets for which both a view and a download service exists



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

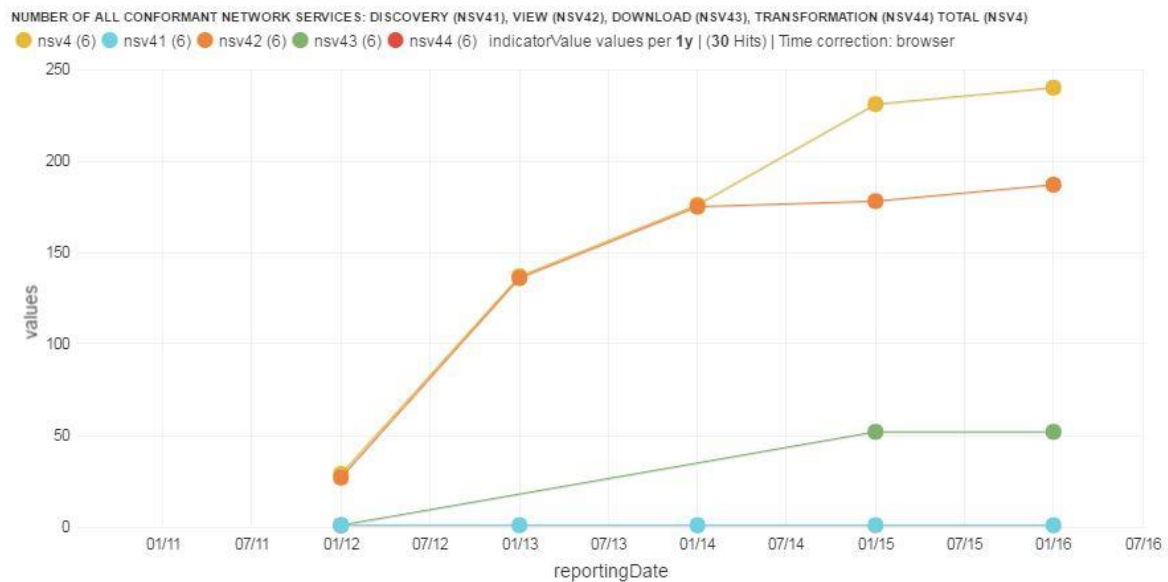
NSv4 (yellow): number of all conformant network services

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

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

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

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



### Evaluation of progress for step 3:

The Netherlands has:

- 92,30% of its data sets accessible for viewing through a view service;
- 90,76% of its data sets accessible for download through a download service.

**84,21% (240 out of 285) of the available digital services are conform to the INSPIRE network service specifications.**

The Netherlands shows that it has built the 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 very high.

#### 2.4. Interoperability of spatial data sets (step 4)

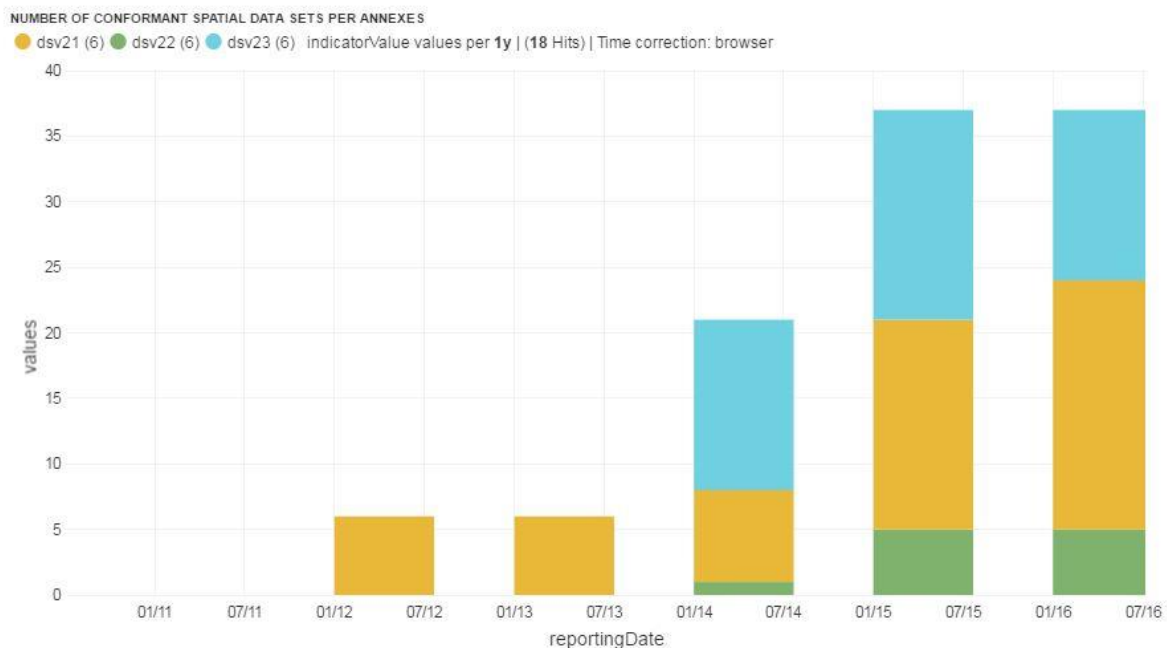
The interoperability of spatial data sets is an outlook on the readiness of Member States to make their spatial data interoperable according to the interoperability specifications laid down in the INSPIRE interoperability implementing regulation ([Commission Regulation \(EU\) No 1089/2010](#)). The deadlines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

DSv2.2 (green): 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



#### **Evaluation of progress for step 4:**

**Netherlands reported 37 data sets to be conform to the INSPIRE interoperability specifications in 2015.**

The Netherlands has started its preparations for the 2017/2020 data interoperability deadlines. The harmonisation of Annex I has not yet been completed but steps are being taken. Almost all Annex I data providers have launched a harmonization project.

### 3. Outlook

The Netherlands have 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)*

- **Stay in line with Make it Work (MiW).** Cooperation/use MiW network by INSPIRE.
- **Updated coordination structure with stakeholders from the environmental domain** (policy)

#### *b. Data sharing and exchange (1.4)*

- **Promote and support greater sharing of knowledge, networks, etc.**

#### *c. Metadata (2.2)*

- **Inventory datasets under environmental legislation need to be delivered to the EU.**

#### *d. Network services (2.3)*

- **Implementation** of Air quality pilot.
- **Integration** of the Marine Strategy Directive and INSPIRE.

#### *e. Data Interoperability (2.4)*

- **Linking** EU priority datasets
- **Update** list of identified potential datasets

## 4. Summary - How is Country doing?

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

The Netherlands 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 available and implemented. The Netherlands has an open data policy. It is estimated that 95% of the available spatial information is open data.

Assessments of monitoring reports issued by the Netherlands and the spatial information that the Netherlands 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*

- 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.