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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 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 2019** as an update of the information acquired through:

- member states update,
- [monitoring report](#) in May 2019.

## State Of Play

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

### Coordination

#### National Contact Point

**Name of Public Authority:** Agency for Data Supply and Efficiency

**Contact Email:** [Click to email](#)

**National INSPIRE Website:** <http://inspire-danmark.dk>

**MIG Contacts: Contact Person:** Laers Erik Storgaard

**Email:** [laers@sdfc.dk](mailto:laers@sdfc.dk)

**Contact Person:** Ulla Kronborg Mazzoli

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### Coordination Structure & Progress:

#### National Contact point

Name of the public authority	Styrelsen for Dataforsyning og Effektivisering Agency for Data Supply and Efficiency

Contact information:	
Mailing address	Rentemestervej 8 DK-2400 København NV
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Email address	<a href="mailto:sdfe@sdfe.dk">sdfe@sdfe.dk</a>
Organisation's website URL	<a href="http://www.sdfe.dk">www.sdfe.dk</a>
Contact person (if available)	Ulla Kronborg Mazzoli
Telephone number	+45 7254 5526
Email address	<a href="mailto:ukm@sdfe.dk">ukm@sdfe.dk</a>
Contact person - substitute (if available)	Lars Erik Storgaard
Telephone number	+45 7254 5279
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### Coordination Structure

The Agency for Data Supply and Efficiency is responsible for the implementation of the INSPIRE directive assigned by the Minister for Energy, Utilities and Climate. The agency hence holds the role as National Contact Point and has the responsibility for the monitoring and reporting of the Directive.

The Minister for Energy, Utilities and Climate has set up The Coordination Committee on Infrastructure for Geographical Information. The Committee consists of representatives from public authorities, the utility sector and other organizations with special knowledge of the spatial information infrastructure. The committee meets 3-4 times a year and promotes dialogue on the strategic development and coordination of the infrastructure for spatial information, hereunder that spatial data contributes to added value for society, in the private as well as in the public sector.

The committee is dealing with e.g. data quality in geo-referenced legislation, the interaction between new technologies and the spatial data infrastructure, the quality of metadata, and the use of spatial data in differentiated and automated regulation. The committee advises the Minister on initiatives promoting the infrastructure for spatial information and on the INSPIRE implementation.

Members of the Committee:

**The Danish Ministry of Energy, Utilities and Climate** (chair), Kristian Møller, Director General

**The Danish Ministry of Transport, Building and Housing**, Peter Holst Herzberg, Head of Department

**The Danish Ministry of Environment and Food**, Lars Møller Christiansen, Vice Director General

**The Geological Survey of Denmark and Greenland (GEUS)**, Heidi Christiansen Barlebo, Head of Department

**Local Government Denmark**, Laila Kildesgaard, Director General

**Danish Regions** Birgit Blaabjerg Bisgaard, Director

**Danish Universities by Aalborg University**, Esben Munk Sørensen, Professor

**The Danish Ministry of Taxation** Trine Søberg, Head of Department

**The Danish Association of Chartered Surveyors**, Ejnar Wildfang Flensborg, Director

**The Utility sector by DANVA (Danish Water and Wastewater Association)**, Lars Gadegaard, Senior Consultant

**Danish Association of Geospatial information** (private sector), Nils Bo Wille-Jørgensen, President

### Progress

Since 2001 common public eGovernment/digitization strategies has framed and supported the development of the national infrastructure for geospatial information. The common digitization strategies commit the central government, regions and municipalities to develop eGovernment infrastructure and solutions based on a common framework and based upon agreed international standards.

In the current strategy 2016-2020 data and data infrastructure plays a significant role. Several initiatives carrying the strategy through deals with better and more efficient use and sharing of public data in society. Building on the Basic Data Program and the vast amount of free and open public data that are digitally available in Denmark efforts are set in motion to improve the quality of existing Basic Data as well as launching new basic data via the common Data Distributor. A permanent governance structure has been established, in order to secure the continued work with providing free and open, reliable and coherent basic data of high quality to all.

Free and open spatial data forms the backbone of digital government and the INSPIRE directive still plays a vital role in this regard as a

standardized data sharing framework. Close cooperation between the geospatial and eGovernment domain is in focus e.g. in establishing a national data catalogue that harvest metadata from the national geoportal, bridging between the DCAT and ISO (INSPIRE) metadata standards using ISA recommendations and solutions..

The INSPIRE implementation efforts has in the recent years mainly focused on the identification, description, tagging, and distribution of LOPD datasets according to the National Action Plan – a joint effort between the Agency for Data Supply and main thematic data owners.

#### Functioning and coordination of the infrastructure

The implementation of INSPIRE supports the realization of the common digitization strategy not the least in relation to the Basic Data Program. Furthermore INSPIRE, as a data sharing framework, has added to the continued development of the NSDI.

The association GeoDanmark is a collaboration between the Agency for Data Supply and Efficiency (state) and the municipalities on mapping and establishing a "Common Public Geographical Administration Foundation". The goal is to reduce costs by avoiding redundant double mapping, to provide common, standardized basic geodata that are frequently updated and distributed as free and open data. GeoDanmark is also the data foundation for the majority of the Danish INSPIRE Annex 1 data.

The Association of GeoDanmark's supreme authority is the Board of Representatives, where all the country's 98 municipalities and the Agency for Data Supply and Efficiency (SDFE) are represented. A board consisting of three municipal representatives and three representatives from SDFE heads GeoDanmark. On a daily basis, the operation of GeoDanmark is handled by a joint secretariat, which is divided between Local Government Denmark (KL) and SDFE. All the 98 Danish municipalities are members of GeoDanmark

#### Usage of the infrastructure for spatial information

Basic Data is distributed via the shared distribution platform; the Common Data Distributor launched in 2018, from where data can safely and easily be used – with respect for personal and sensitive information.

Another main distributor of geodata is the National Map Supply owned and managed by SDFE. The National Map Supply provides public authorities, citizens and businesses with free and open geodata that do not fall under the Basic Data Program. The National Map Supply also distributes a range of INSPIRE data. In 2018 the National Map Supply served 6.693.116.818 requests and had a total of 18.815 registered users.

A much-used service in Denmark is DAWA (Danish Addresses Web API. In 2017 is served 1.5 bn requests. From 2019 DAWA will distribute address data via the Common Data Distributor.

The national geoportal Geodata-info.dk contains metadata for all datasets and services falling under the INSPIRE directive as well as other geodata. The portal is free for all to use as a metadata management system and as a discovery service. The portal is owned and maintained by SDFE.

#### Data sharing arrangements

As part of Denmark's eGOVERNMENT strategy 2011-2015, individuals, public authorities and private businesses have free access to retrieve and use all Basic Data. Local government and state has agreed to expand the agreement and since 2013 a wide range of spatial data is freely available for all, e.g. all topographic data (GeoDanmark), Cadastral information, and national Elevation model/ the digital terrain model. With very few exceptions, e.g. Nautical Charting, INSPIRE data is free and openly accessible in Denmark.

#### Costs and benefits

INSPIRE has been an important facilitator for the establishment of the Danish Basic Data program and the ongoing development of the national Spatial Data Infrastructure.

A Business Case estimates that free and open Basic Data will provide a total annual societal gain of 800 mill DKR of this 500 mil DKR within the private sector.

Prior to opening up Danish geodata in 2012 the value of geodata was estimated to 1.6 billion DKK.

In 2016 an impact analysis showed that the socio-economic value of open geodata has risen to DKK 3,5 billion due to free and open geodata.

## 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:

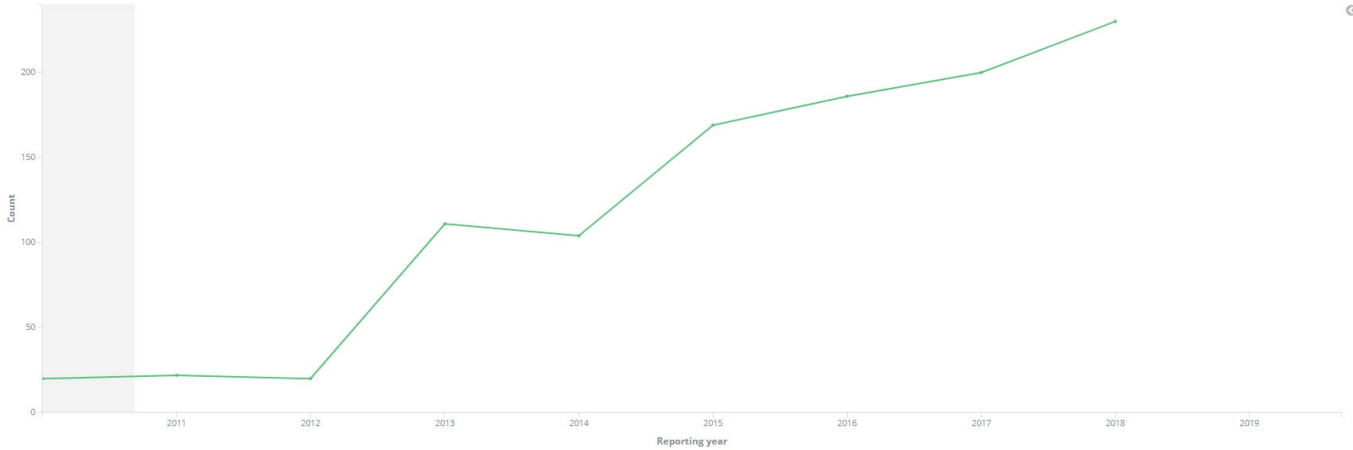
- Step 1: Identify spatial datasets
- Step 2: Document these datasets (metadata)
- Step 3: Provide services for identified spatial datasets (discovery, view, download)
- Step 4: Make spatial datasets interoperable by aligning them with the common data models.

The key facts and figures presented in this country fiche are based on the information provided by Denmark 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.

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

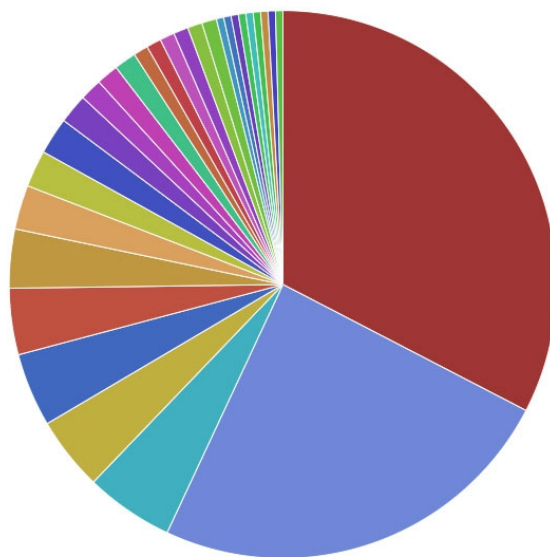
Indicator / Number of spatial data sets for all annexes (DSv\_Num)



Country fiche / datasets by annex

## Data sets made available per INSPIRE theme (reference year 2018)

INSPIRE Raw data (datasets) by themes

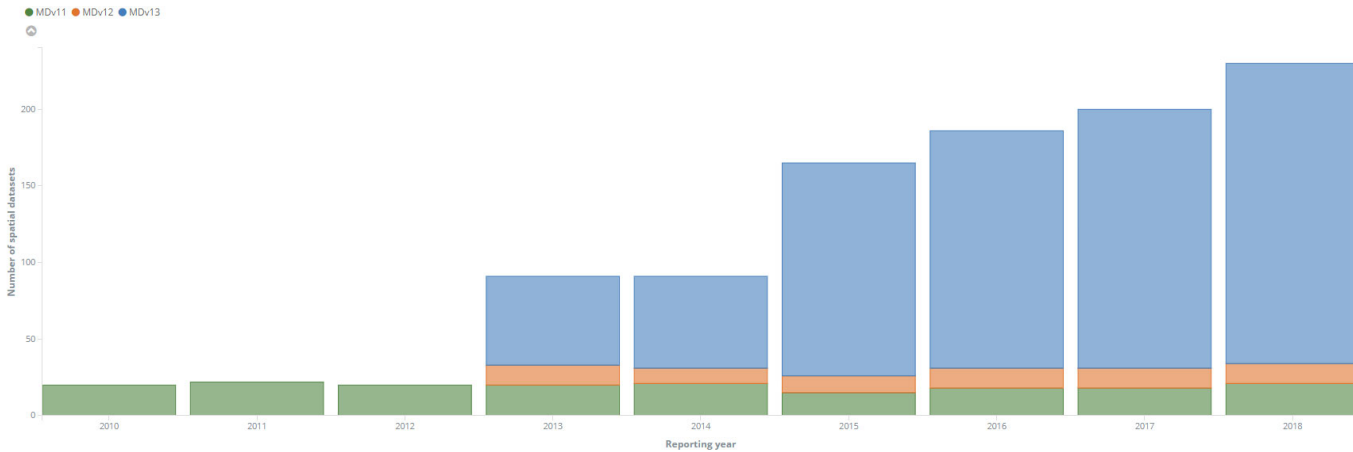


- Area management/re...
- Land use
- Environmental monit...
- Geology
- Natural risk zones
- Protected sites
- Habitats and biotopes
- Species distribution
- Production and indus...
- Transport networks
- Human health and sa...
- Atmospheric conditio...
- Energy resources
- Oceanographic geogr...
- Administrative units
- Buildings
- Elevation
- Hydrography
- Soil
- Utility and governme...
- Addresses
- Agricultural and aqua...
- Cadastral parcels
- Geographical names
- Land cover
- Meteorological geogr...
- Mineral resources
- Population distributi...
- Statistical units

Country fiche / datasets by themes

## Data sets made available per INSPIRE theme

Indicator / Number of spatial data sets per annexes



Country fiche / Documentation of the data

MDv1.1: number of spatial data sets for Annex I that have metadata

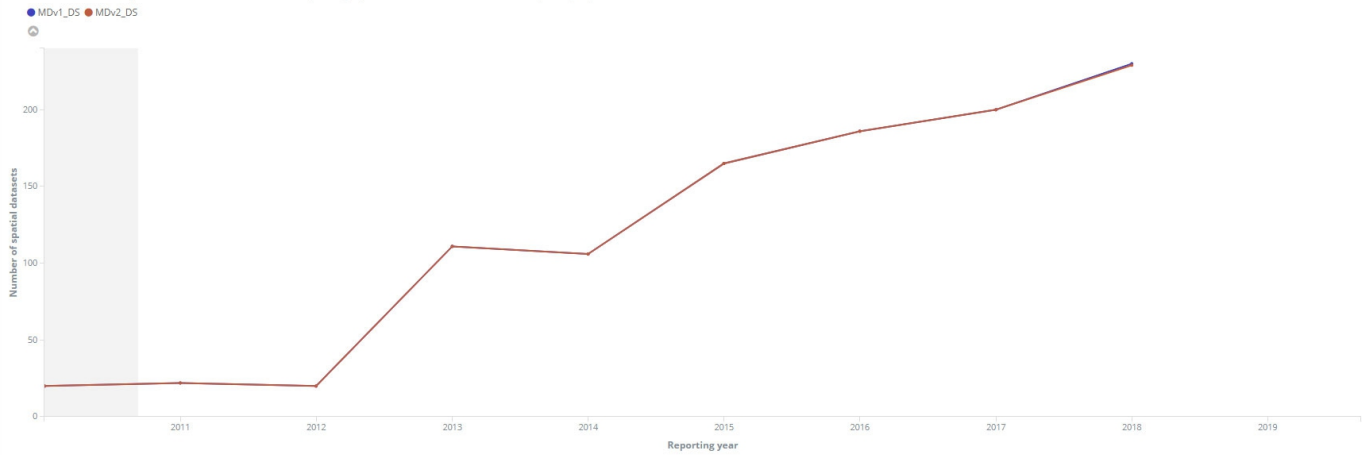
MDv1.2: number of spatial data sets for Annex II that have metadata

MDv1.3: number of spatial data sets for Annex III that have metadata

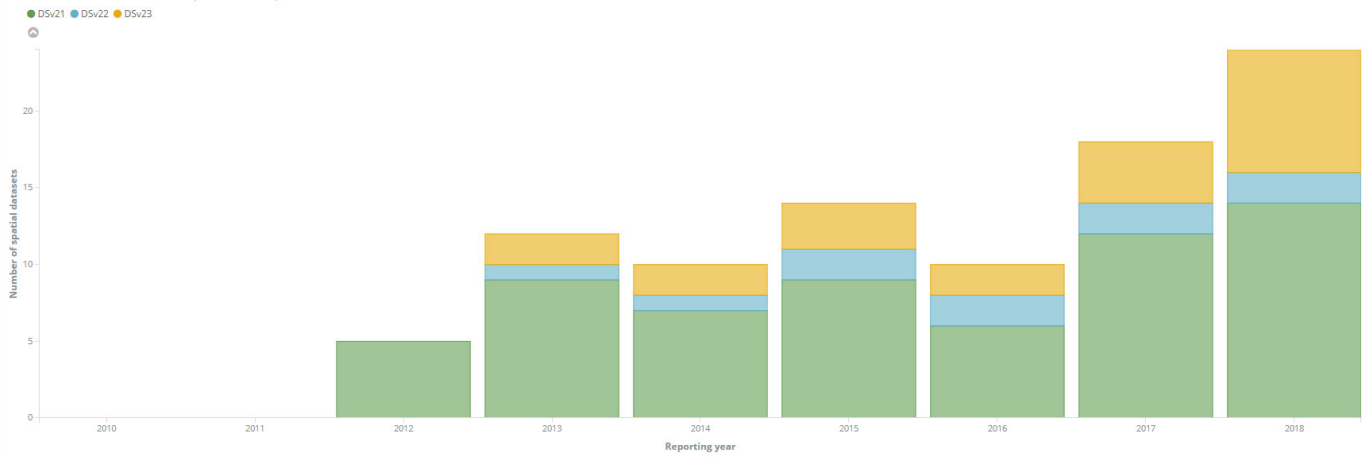
## Documentation of the data (metadata) (step 2)

### Evolution of documented data and conformity of the documentation

Indicator / Number of spatial data set that have metadata (MDv1\_DS) and have conformant metadata (MDv2\_DS)



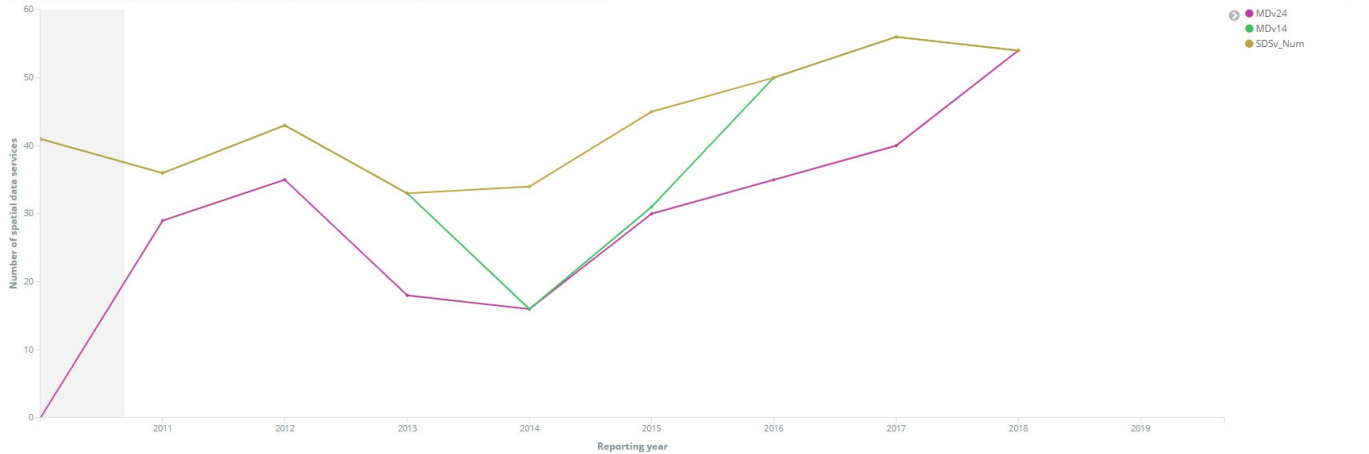
Indicator / Number of conformant spatial data sets per Annexes



Country fiche / Evolution of documented services and conformity of the documentation

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

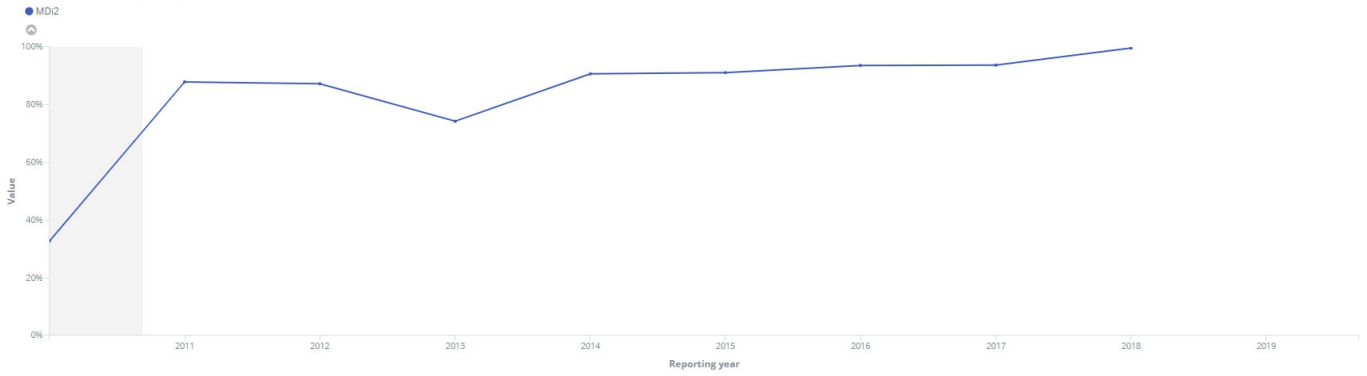
Indicator / Number of spatial data services (SDSv\_Num) with metadata (MDv14) and conformant metadata (MDv24)



Country fiche / Evolution of the overall conformity of the documented metadata

## Evolution of the overall conformity of the documented metadata

Indicator / Percentage of spatial data sets and services with conformant metadata (MDI2)



Country fiche / accessibility

## Accessibility of the data through digital services (step 3)

### Digitally accessible spatial data per INSPIRE theme (reference year 2018)

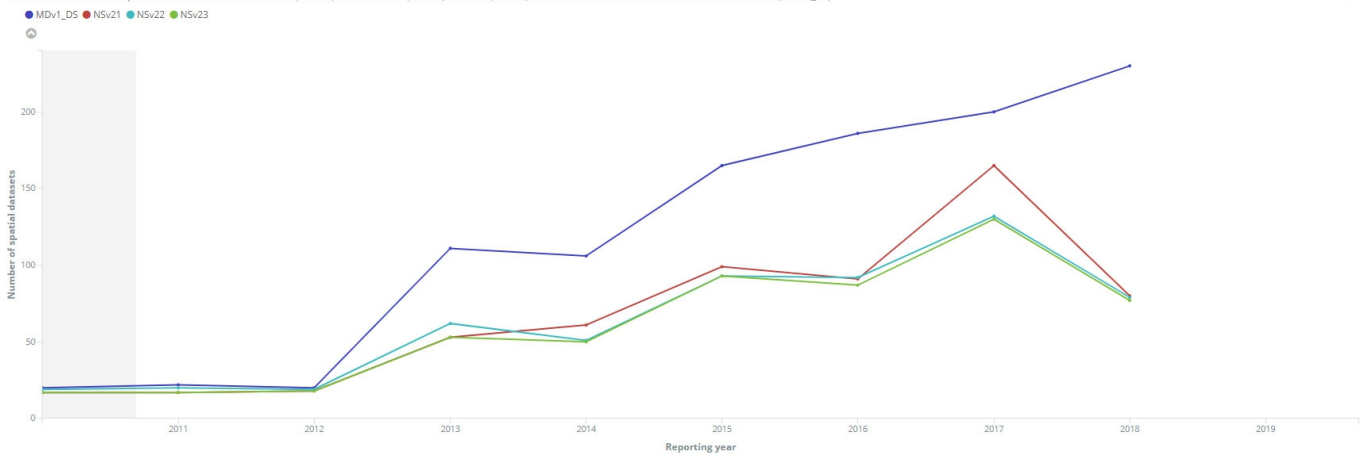
INSPIRE Raw data (datasets available through services) by themes

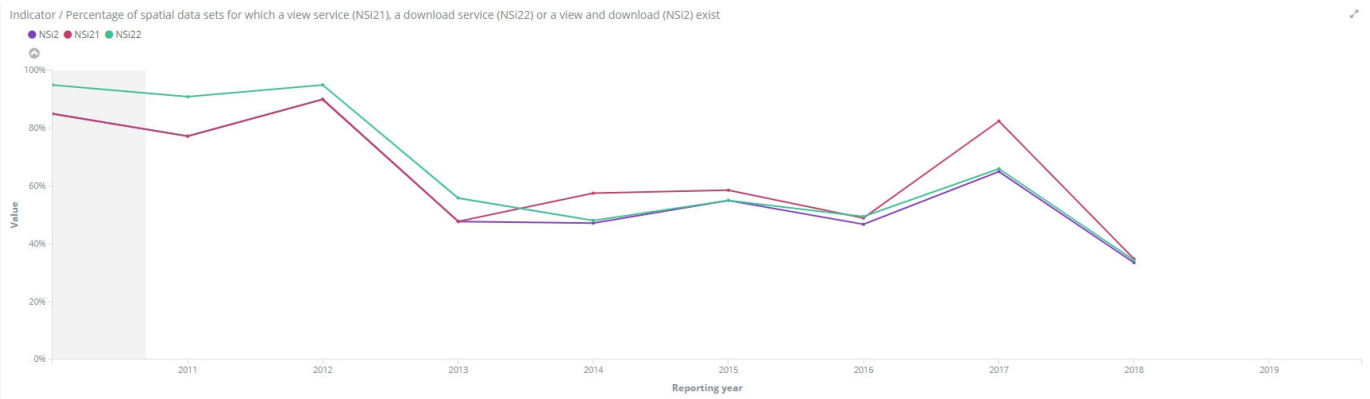


Country fiche / Evolution of spatial data accessible through services

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

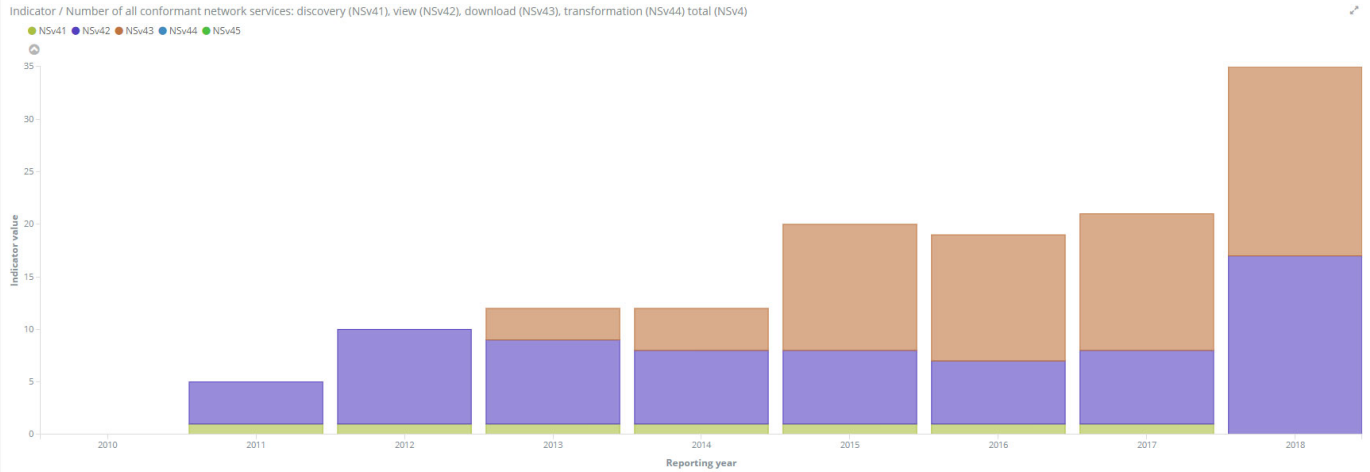
Indicator / Number of spatial data sets for which a view (NSv21) or download (NSv22) or both (NSv23) service exist and the total number of metadata (MDv1\_ds)





Country fiche / Evolution of the conformity of the digital services

### Evolution of the conformity of the digital services

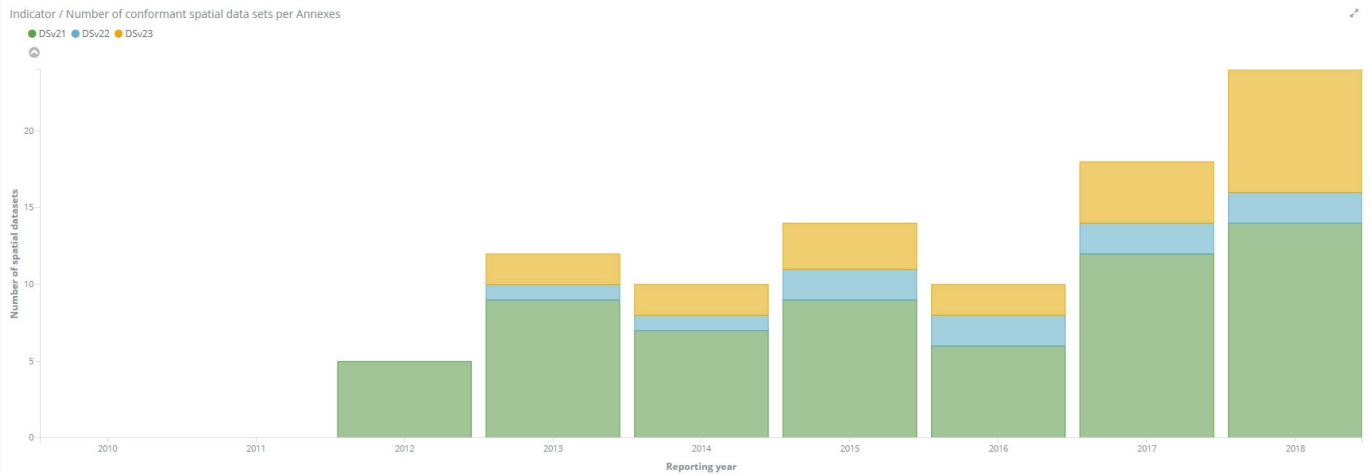


Country fiche / Interoperability

### 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 <http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:02010R1089-20131230&qid=1400675738563>). The deadlines for implementation of the spatial data interoperability are 23/11/2017 for Annex I data and 21/10/2020 for Annex II and III data.

### Evolution of the conformity with INSPIRE interoperability specifications for spatial data



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

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

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