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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 Luxembourg. More detailed information is available on the [INSPIRE knowledge base](#).

Luxembourg has had an INSPIRE law since 2010 and has been implemented and maintained the national INSPIRE node since then.

All Annex I data has been harmonised from the beginning and the harmonisation of Annex II and III data has been planned in a 4 year road map which is being transposed.

Everything is on course and all INSPIRE relevant data should be available in a harmonised way until 2020.

## Coordination

### National Contact Point

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**Telephone Number:** +352 247 54 401

**Telefax Number:** /

**National INSPIRE Website:** <http://www.geoportal.lu/Portail/menuAction.do?dispatch=load&menuToLoad=inspireDo...>  
<https://catalog.inspire.geoportal.lu>

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#### Coordination Structure & Progress:

- **National Contact point**

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Contact information:	
Mailing address	54, av Gaston Diderich
Telephone number	+352 247 54 400
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Organisation's website URL	<a href="http://www.act.etat.lu">http://www.act.etat.lu</a>
Contact person	Bernard Reisch
Email address	bernard.reisch@act.etat.lu
Contact person - substitute	Jeff Konnen
Email address	jeff.konnen@act.etat.lu

- **Coordination Structure**

- Comité de Coordination de l'Infrastructure Luxembourgeoise de Données Géographiques CC-ILDG, created in 2009, is an organisation that acts as a steering committee of all the activities concerning the creation, updating, management and distribution of geographic data, either in analogue or in digital form. This group is led by the Administration du Cadastre et de la Topographie (ACT), who is responsible for an important part of the geographic data currently available in the Grand-Duchy.
- Groupe Technique de l'Infrastructure de Données Géographiques GT-ILDG: The members are representatives of their respective public organizations, appointed by their ministers or directors in charge come together 2-4 times a year to discuss projects related to geodata, to discuss challenges and the progress of development of the geoportal tools created by the ILDG / Geoportal team at the cadastre.
- Thematic Working Groups: if special interest topics arise during general meetings, working groups are constituted and agree a meeting schedule. The actual WGs are: WG for legislation purposes, WG for points of interest, WG for water data, WG for geodata policies, WG for the management of metadata.

- **Progress**

- The separation of CC-ILDG and GT-ILDG has been decided recently so that the "CC" can focus on the tasks given by law and the GT can focus on technical aspects.
- During the last 3 years, most if not all geographic data produced by the public sector in Luxembourg has been released under Creative Commons 0 license to the public domain and is available on <https://data.public.lu>. This is a huge step and it also helps the public actors to collaborate better.
- All the data that is being harmonized for INSPIRE is taken from the open data portal, harmonized and put back there under the same license as INSPIRE GML.
- The whole harmonizing process has been fully automated, so that GMLs, ATOM Feeds and WMS View Services are created by a process that is fed by mapping rules

#### Functioning and coordination of the infrastructure

- In order to be able to deliver a more complete portfolio of Luxembourg's INSPIRE-related datasets, ACT has proceeded to a detailed assessment of Luxembourg's situation in the INSPIRE dossier with the help of external experts. This inventory is now being done once a year.
- All the identified datasets have to be published under an open license (CC0 if possible) on the national data portal. The INSPIRE experts will then contact the data producers to define the mapping rules and they will implement a script that can be automatically

executed regularly.

- Domain experts only have to update their data on the open data portal and the INSPIRE scripts will automatically convert the data to the INSPIRE data models.

The "Groupe Technique" of the ILDG meets 2-4 times a year to discuss different aspects of the ILDG and to coordinate the experts work on INSPIRE.

#### Usage of the infrastructure for spatial information

- The backbone of the Luxembourg's SDI is the Luxembourgish geoportal which opens up an access to the different users. The LSDI offers a lot of OGC compliant webservice (WMS,WFS, CSW), open data and a very powerful viewer (<http://map.geoportail.lu>).
- Independently of the special geoportal dedicated to INSPIRE, the national geoportal of Luxembourg has great success and is widely used by the general public. It counts more than 20'000 visitors per day, through its different viewers, webservices and APIs.

#### Data sharing arrangements

The LSDI and especially the INSPIRE implementation is based on the principle that all geodata should be released under an open license to the open data portal.

This means that there are no further data sharing arrangements needed anymore as all the data is openly available for all, without any restrictions.

#### Costs and benefits

- For the years 2013-2020, the costs of geoportal, INSPIRE and related activities, can be approximatively summarised as follows:
  - 2013 - 1.125.000 EUR
  - 2014 - 1.105.000 EUR
  - 2015 - 1.135.000 EUR
  - 2016 - 1.160.000 EUR
  - 2017 - 1.280.000 EUR
  - 2018 - 1.400.000 EUR
  - 2019 - 1.400.000 EUR
  - 2020 - 1.440.000 EUR
- The existence of the national geoportal, seen independently from the INSPIRE initiative, has brought great benefits to Luxembourg's public sector bodies, private firms and the citizen in general.
- INSPIRE and the geoportal have been integrated on the list of important factors in the national administrative simplification program.

## 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:

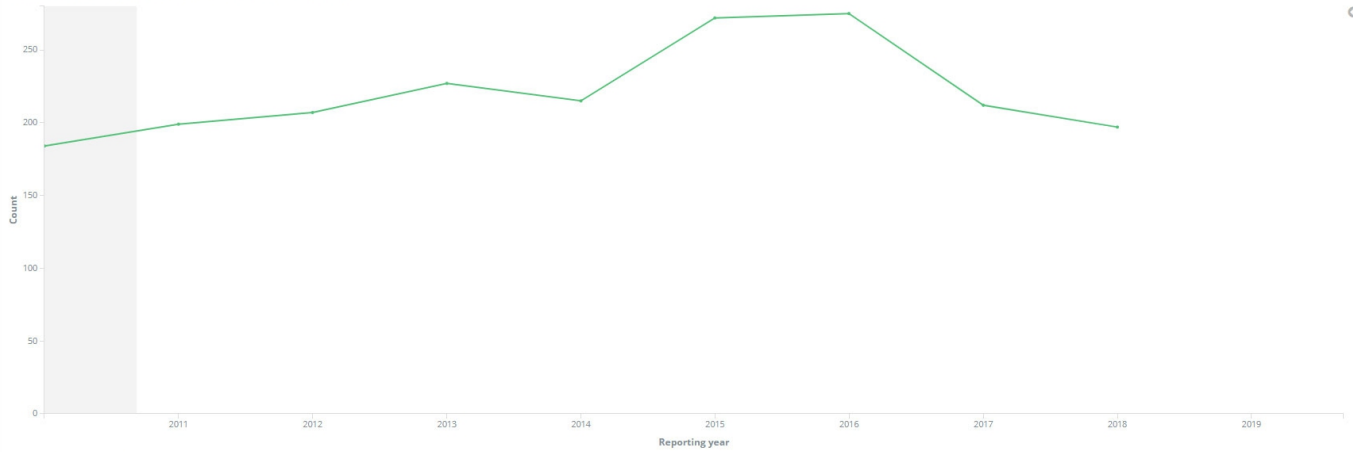
- Step 1: Identify spatial datasets
- Step 2: Document these datasets (metadata)
- Step 3: Provide services for identified spatial datasets (discovery, view, download)
- Step 4: Make spatial datasets interoperable by aligning them with the common data models.

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

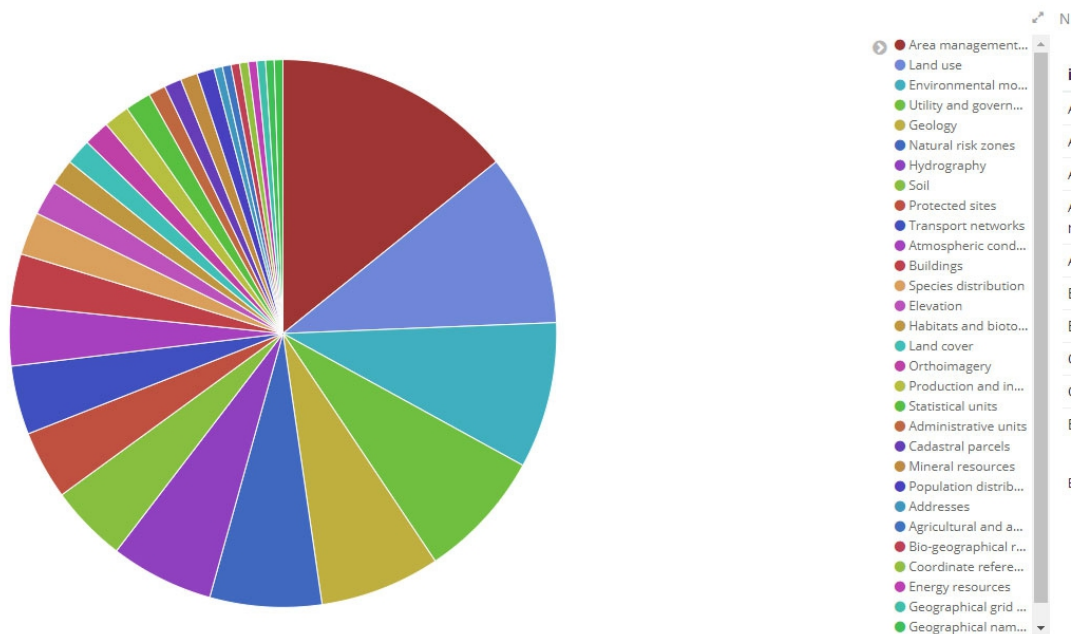
Indicator / Number of spatial data sets for all annexes (DSv\_Num)



Country fiche / datasets by annex

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

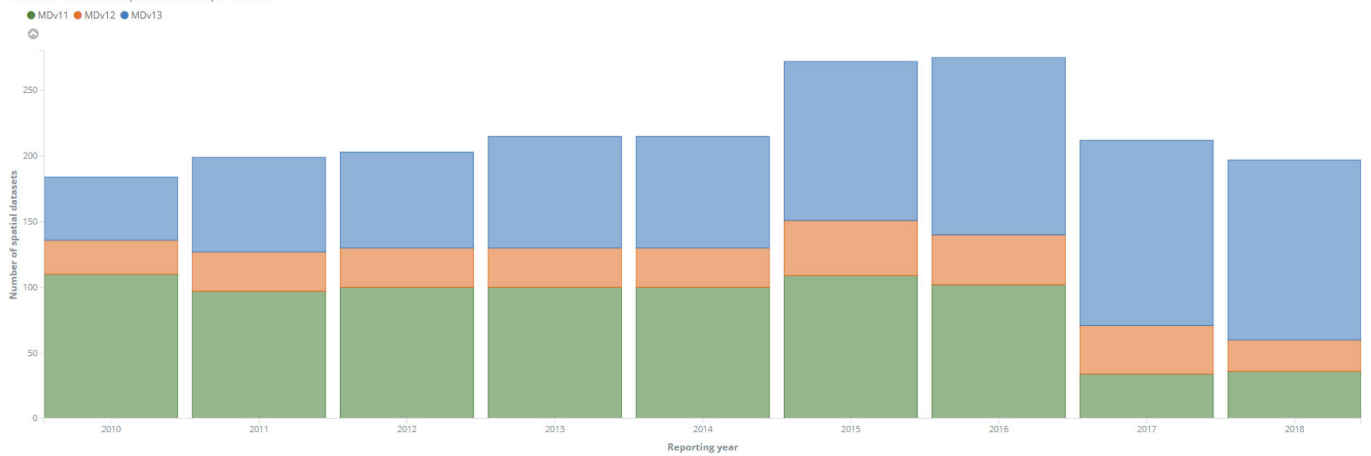
INSPIRE Raw data (datasets) by themes



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

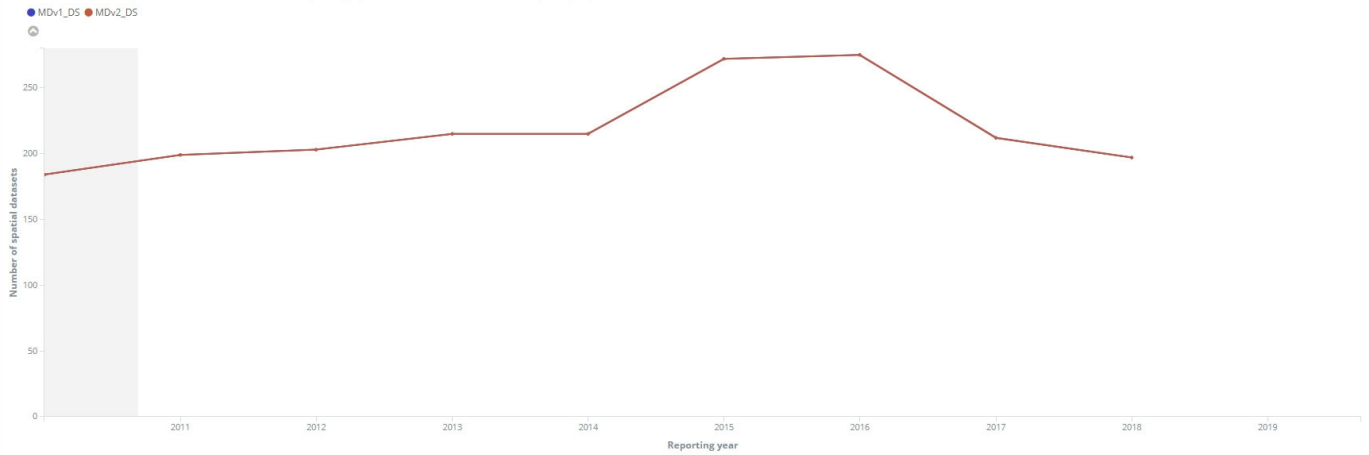
MDv1.2: number of spatial data sets for Annex II that have metadata

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

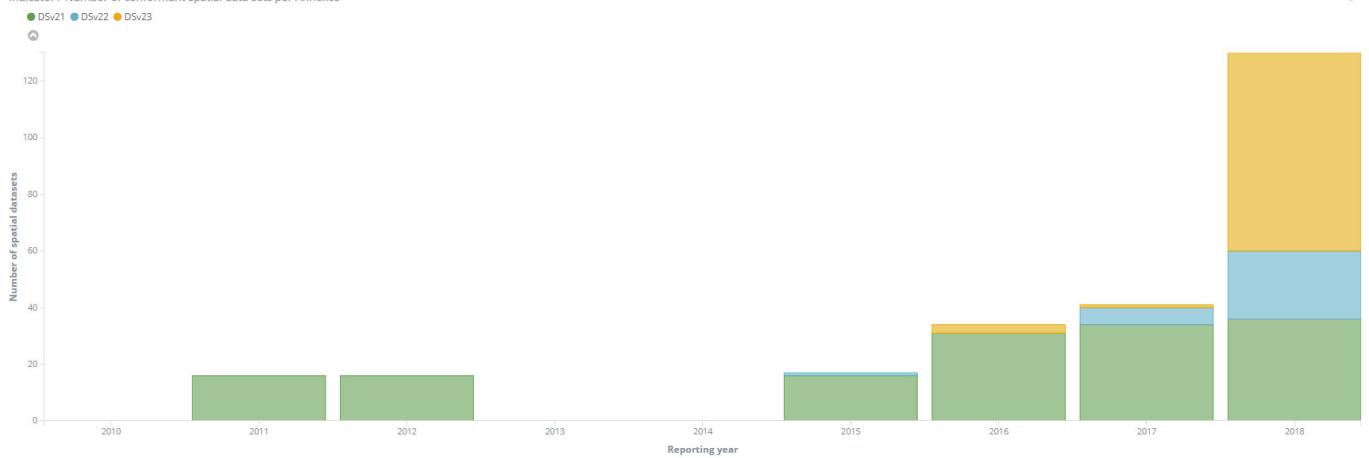
## Documentation of the data (metadata) (step 2)

### 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)



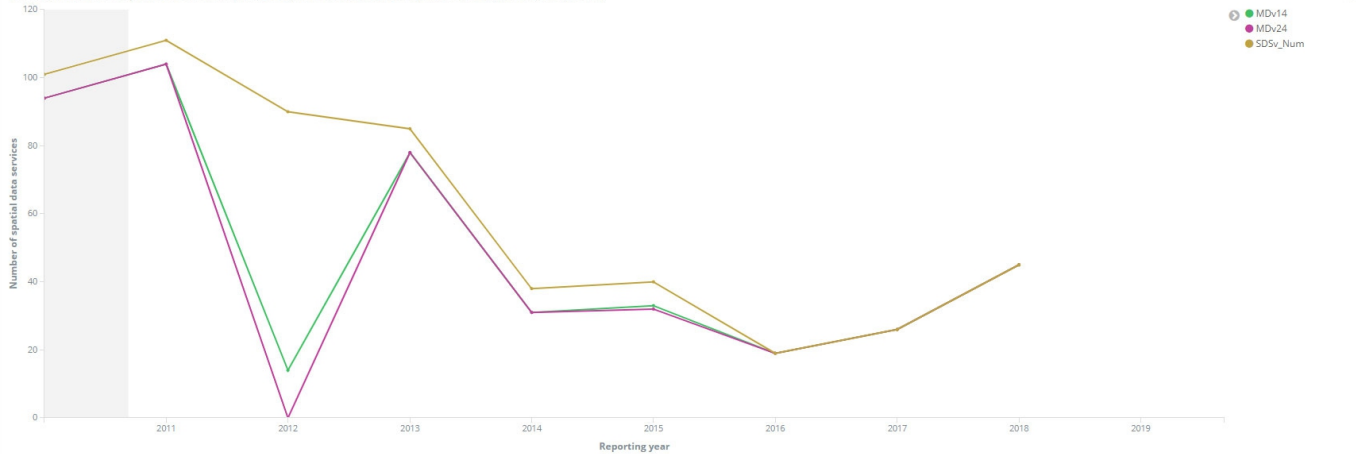
Indicator / Number of conformant spatial data sets per Annexes



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

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

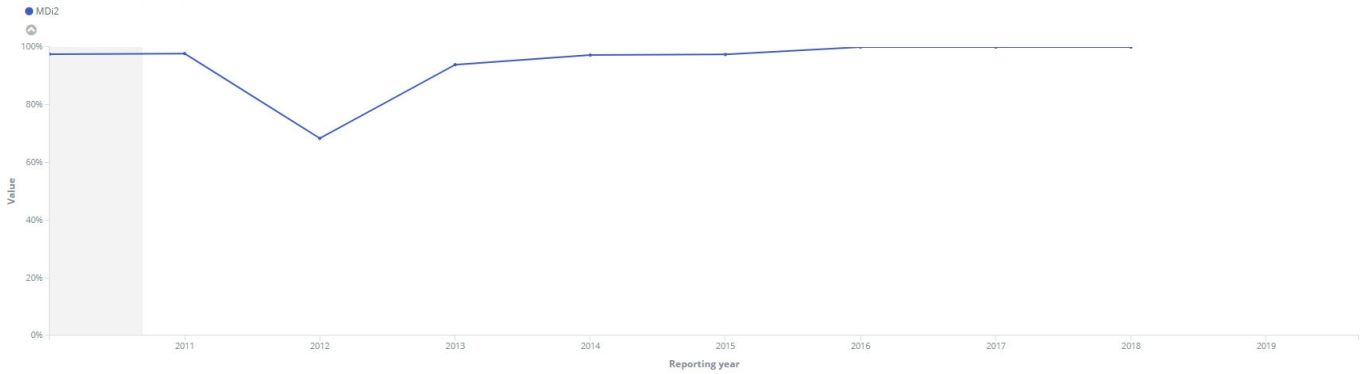
Indicator / Number of spatial data services (SDSv\_Num) with metadata (MDv14) and conformant metadata (MDv24)



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)

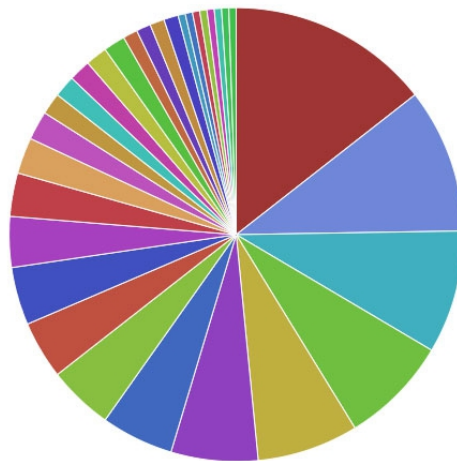


Country fiche / accessibility

## 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

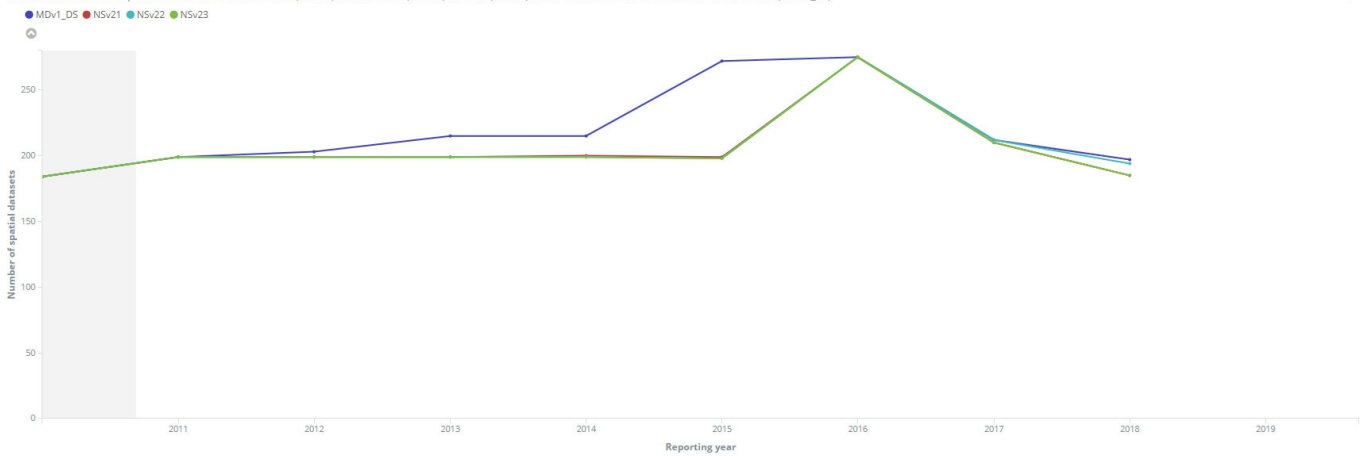


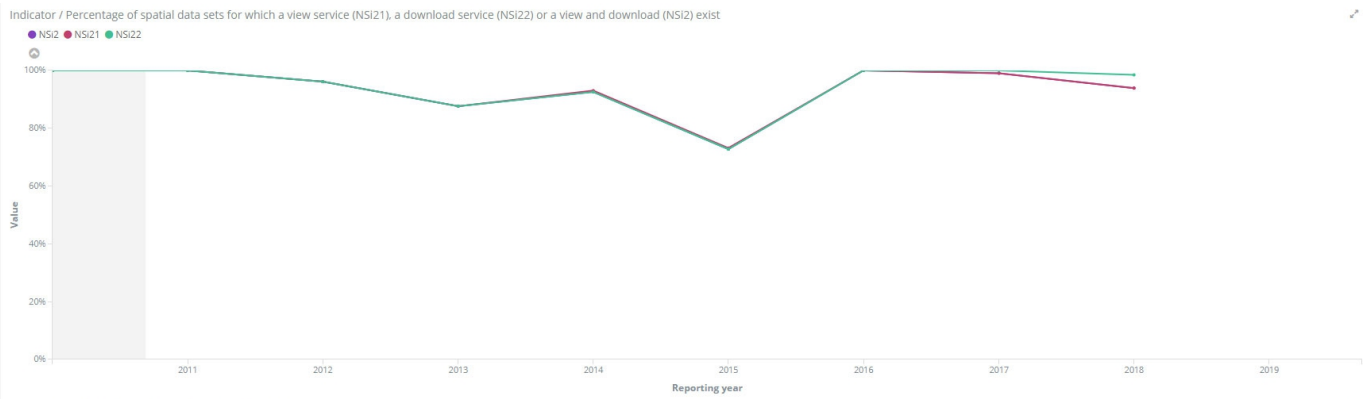
- Area management...
- Land use
- Environmental mo...
- Utility and govern...
- Geology
- Hydrography
- Natural risk zones
- Soil
- Protected sites
- Transport networks
- Atmospheric cond...
- Buildings
- Species distribution
- Elevation
- Habitats and bioto...
- Land cover
- Orthoimagery
- Production and in...
- Statistical units
- Administrative units
- Cadastral parcels
- Mineral resources
- Population distrib...
- Addresses
- Agricultural and a...

Country fiche / Evolution of spatial data accessible through services

## Evolution of spatial data made accessible through digital services

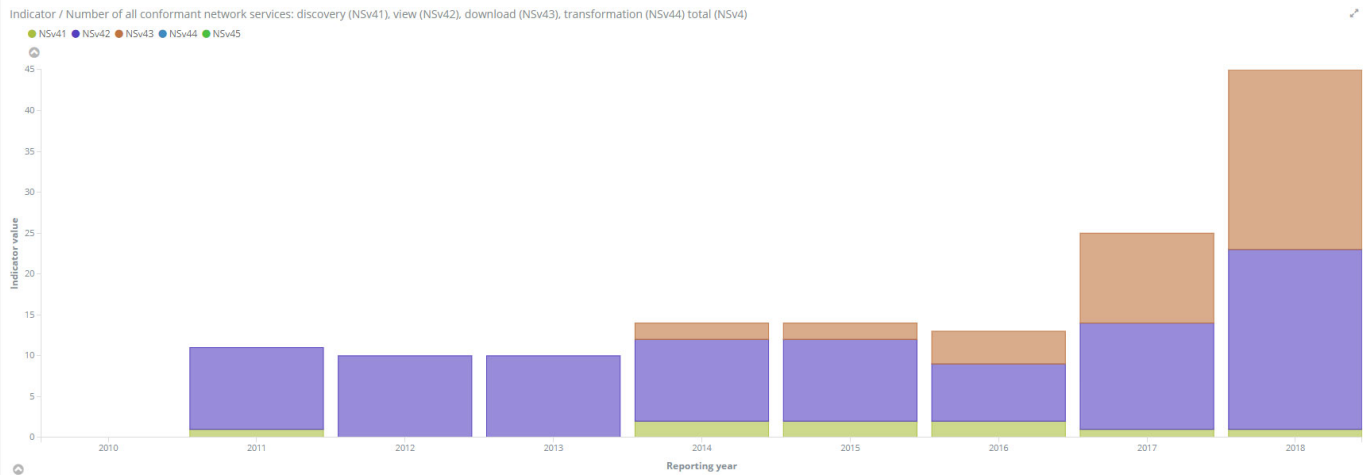
Indicator / Number of spatial data sets for which a view (NSv21) or download (NSv22) or both (NSv23) service exist and the total number of metadata (MDv1\_ds)





Country fiche / Evolution of the conformity of the digital services

### Evolution of the conformity of the digital services

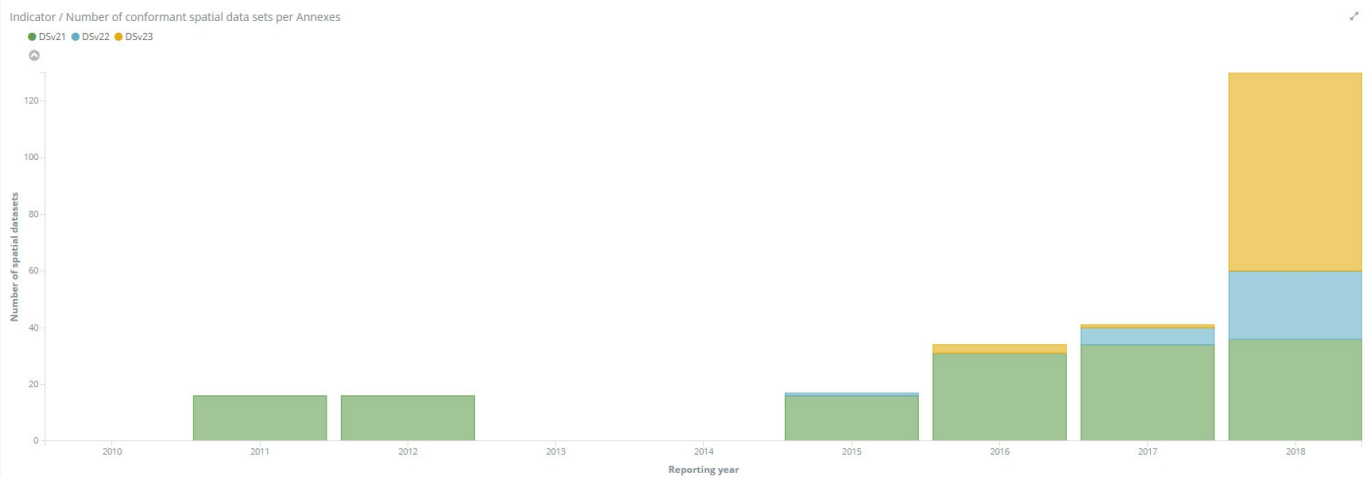


Country fiche / Interoperability

### 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