



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

## COUNTRY FICHE Italy

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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 Italy 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

## 1. State of Play

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

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

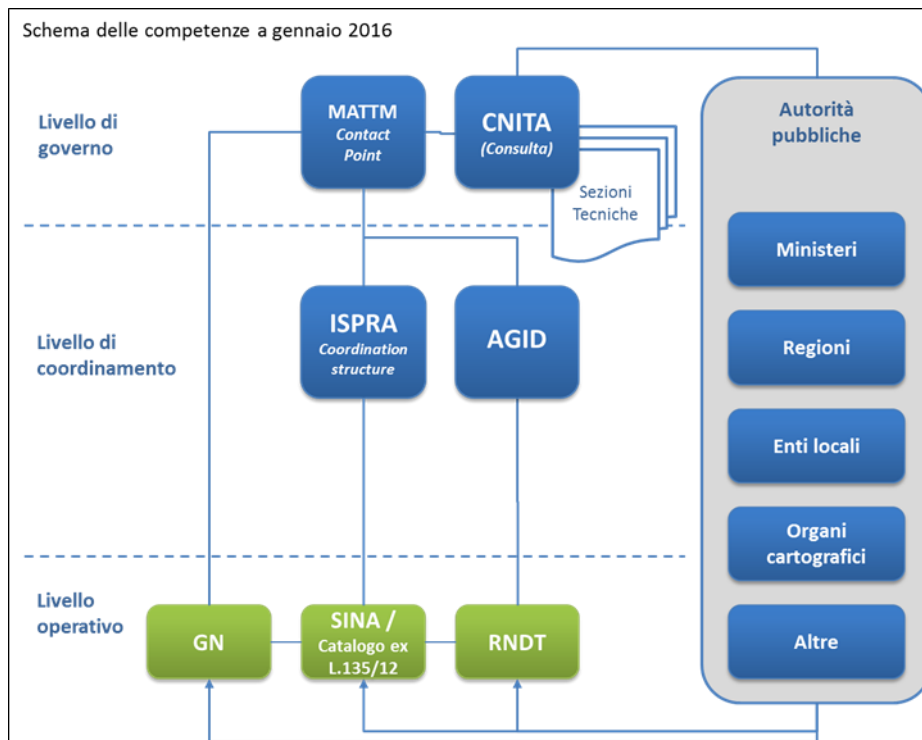
- **[Effectiveness]** How successful has the INSPIRE implementation been in achieving, progressing towards its objectives; progress made, gaps, what factors have influenced or why it has not yet been achieved regarding availability of services, data interoperability, sharing, data policy obstacles
- **[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  | Ministero dell'Ambiente e della Tutela del Territorio e del Mare           |
| Mailing address           | Via Cristoforo Colombo, 44 – 00147 Roma                                    |
| Telephone number          |  |
| Fax number                |  |
| E-mail                    | <a href="mailto:NCP.Inspire@minambiente.it">NCP.Inspire@minambiente.it</a> |
| Website address           | <a href="http://www.minambiente.it/">http://www.minambiente.it/</a>        |
| Contact person            |  |
| Telephone number          |  |
| E-mail                    |  |
| Contact person substitute |  |
| Telephone number          |  |
| E-mail                    |  |

- Coordination Structure



- Progress

- According to adopted coordination strategy (January 2016) there are three levels in the governance structure:
  - Top: governmental level, including the NCP (Ministry of Environment) and the consulting and supporting body created in May 2016 (CNITA), website: <http://www.minambiente.it/>
  - Middle: coordination level, including the coordination structure (ISPRA, the National Environment agency) and the national body for the Digital Agenda (AGID),
  - Bottom: operational level, including the National Geoportal (GN), the National Environmental Information System (SINA) and the national geographic metadata catalogue (RNDT)
- In May 2016 Italy has set up a body in charge of linking all the public administrations providing spatial data, this body called "Consulta Nazionale per l'Informazione Territoriale" (CNITA) was already envisaged in 2010 in the law transposing the INSPIRE Directive but never established so far. **[Effectiveness]**
- The coordination structure supporting the MSCP is ISPRA - Via Vitaliano Brancati, 48 - 00144 Roma, Tel. +39 06 5007 1, email: [inspire@isprambiente.it](mailto:inspire@isprambiente.it); website: [www.isprambiente.it](http://www.isprambiente.it).

## 1.2 Functioning and coordination of the infrastructure

- Information available through Italian INSPIRE geoportal <http://www.pcn.minambiente.it/geoportal/csw>
- Tests on the infrastructure show a 95.13% conformity (as of April 2016) **[Efficiency]**
- Italy clearly states that they are willing to use the present and future collected data for decision making processes related not only to environmental or reporting matters, but also to the wider land use planning and governance. Moreover, they are willing to adopt an open data strategy **[Relevance]**

## 1.3 Usage of the infrastructure for spatial information

- Incomplete information on data usage at national and regional level. An activity to harmonise the access to network services and related use through tracking procedures is foreseen **[Efficiency]**
- Metadata statistics are presented in the report

- The report provides number of accesses to the national geoportal between 2012 and 2015, also categorised the INSPIRE theme.
- Good example of cross-border collaboration in the alpine Region, with French and Swiss Authorities. The collaboration resulted in a system for visualising and analysing the territory using a 3D cartography **[EU added value]**
- Italy participated to the OneGeology Europe project, supporting in particular risk analysis and environmental impact assessments across Italy France, Switzerland, Austria and Slovenia **[EU added value]**

#### 1.4 Data Sharing Arrangements

- The Italian Ministry of Environment has signed more than 200 data sharing agreements since 2009, and for the subscription to the national geoportal
- LIDAR data have been also shared through a dedicated policy instrument (Piano Straordinario di Telerilevamento), and there is now open procedure for an agreement with the JRC (Global Security and Crisis Management Unit) to share this data with the EC **[EU added value, Coherence]**
- Two main barriers to data sharing identified **[Effectiveness]**:
  - One of the obstacles to fully comply to INSPIRE is identified in the current legislative landscape that in many cases is antecedent the INSPIRE Directive and therefore applies limitations to data sharing.
- Especially local administrations have difficulties in funding the right expertise /infrastructure that would enable harmonisation towards INSPIRE formats that would feed the national data infrastructure with local data "ready to use".

#### 1.5 Costs and Benefits

- The report contains information on the costs of implementation of the infrastructure in terms of man months, and divided by the different actors (Ministry of Environment, ISPRA) **[Efficiency]**
- There is no description of the methodology followed to estimate such costs
- On benefits, amongst the qualitative benefits outlined, the rationalisation of the economic investments and of the operational costs, thanks to the removal of duplications; and the wider use of the public data thanks to the data sharing, standardisation and harmonisation activities required by INSPIRE **[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.

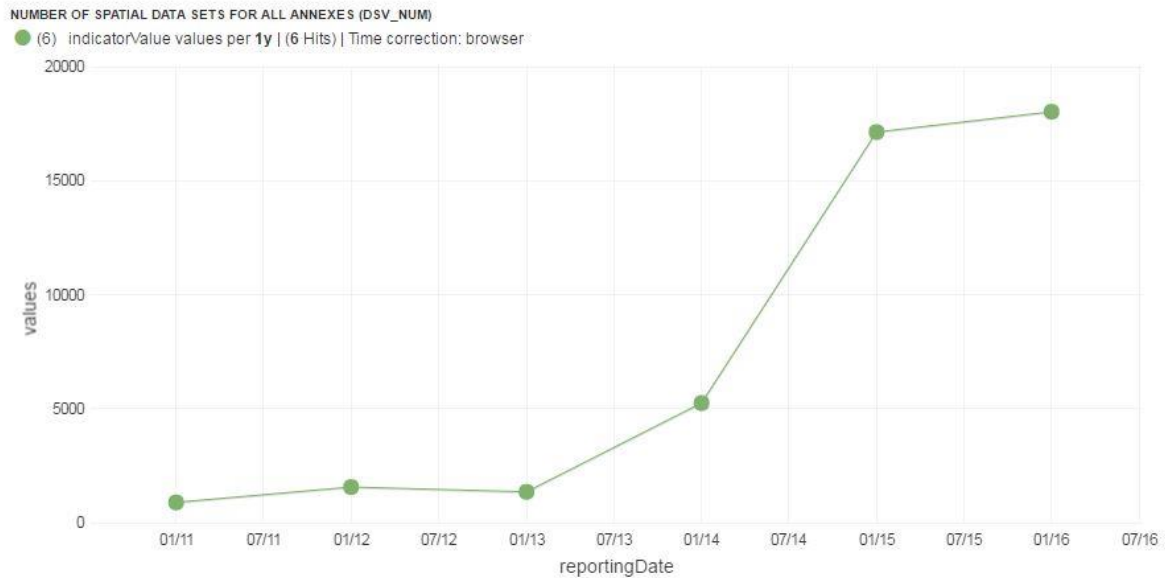
The key facts and figures presented in this country fiche are based on the information provided by Italy on the [INSPIRE dashboard](#). **The provided statistics is not reflecting the data available on [INSPIRE geoportal](#).** The INSPIRE geoportal is updated on a regular and ongoing basis, whilst the 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.

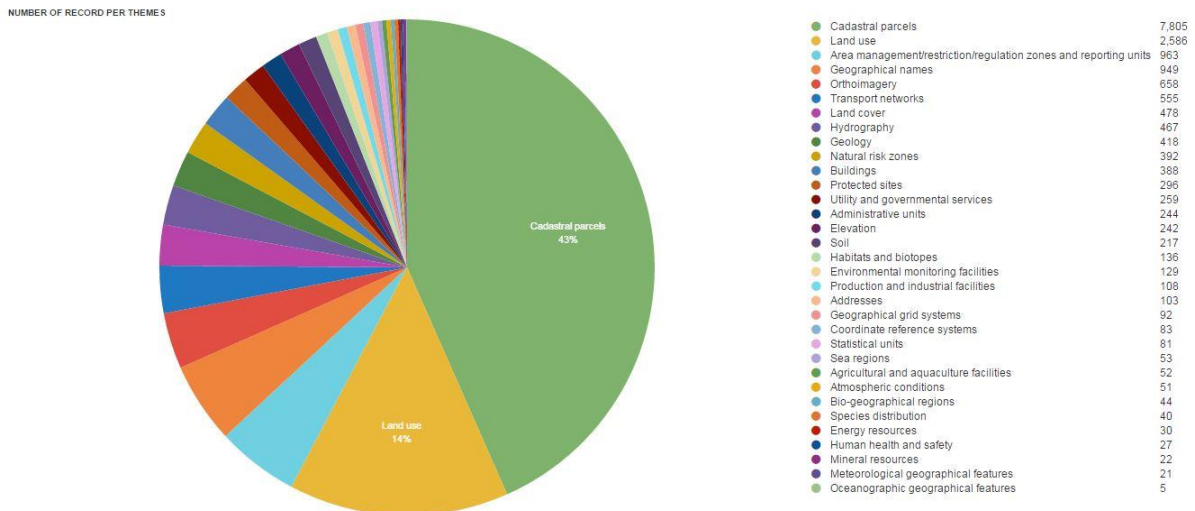
## 2.1. Identification of spatial data with relevance to the environment (step 1)

### a. Evolution of the data offering

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

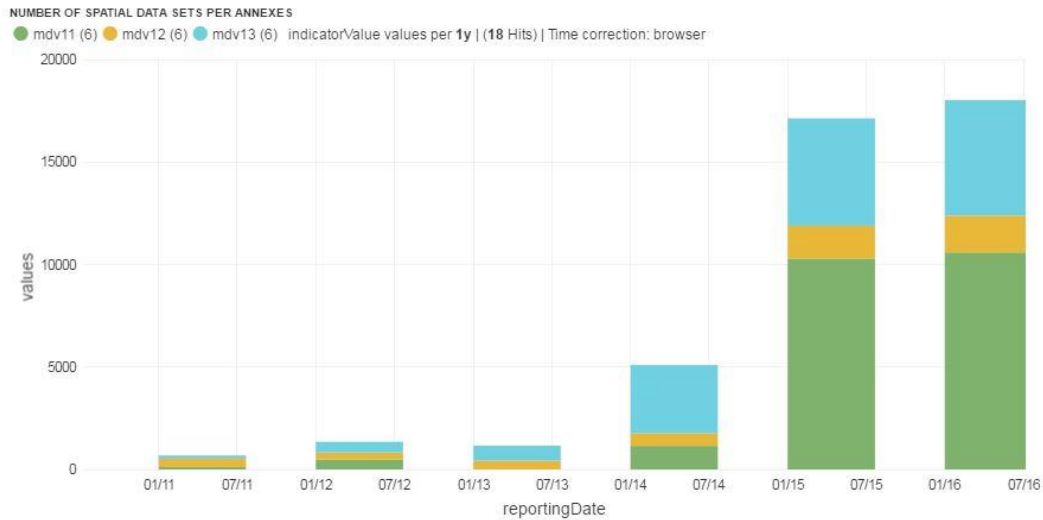


### b. Data sets made available per INSPIRE theme in 2015



*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:**

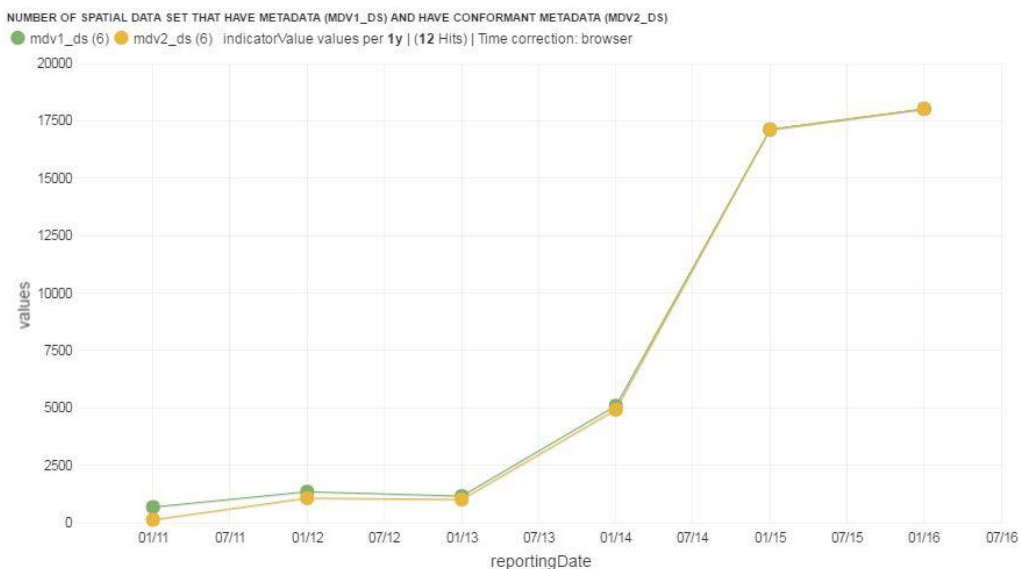
**Italy has identified a total of 18023 spatial data sets with relation to the themes listed in the INSPIRE annexes.**

A lot of relevant spatial data sets have been identified for the different data themes in period from 2014 to 2016. Many datasets cover theme cadastral parcels. The further improvement is expected 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

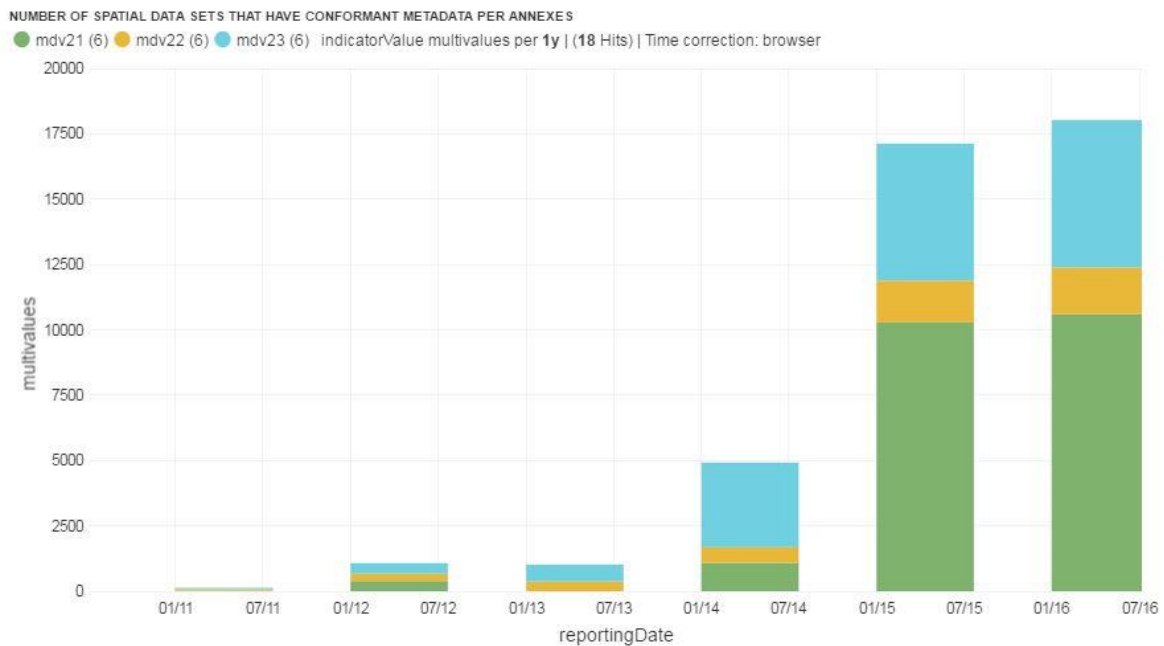


### b. Documented data per annex in 2015

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

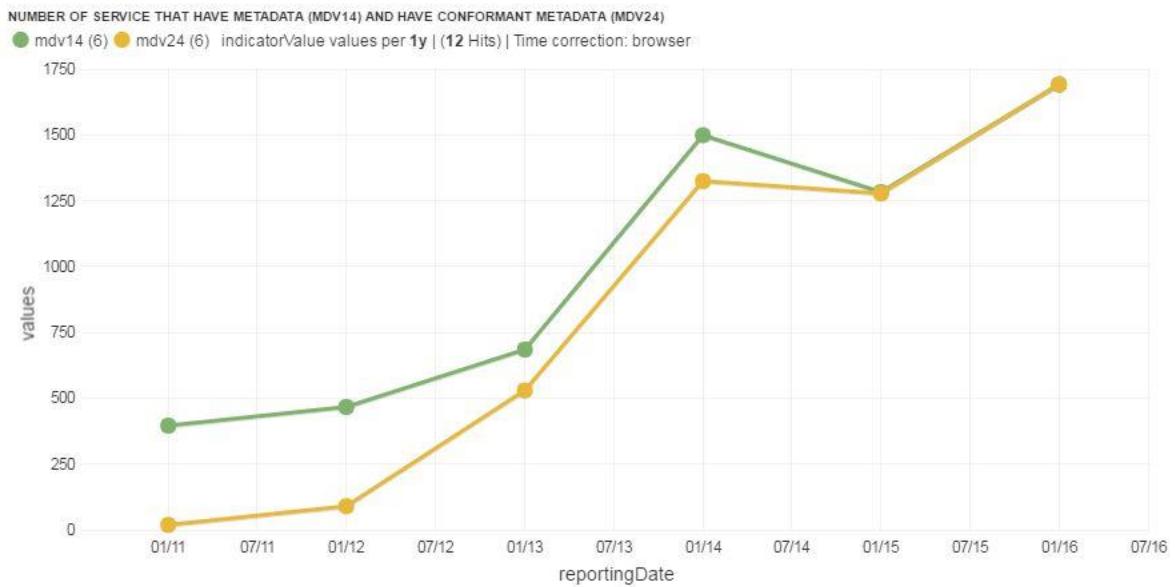
MDv2.3 (blue): number of spatial data sets for Annex III that have conformant metadata



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

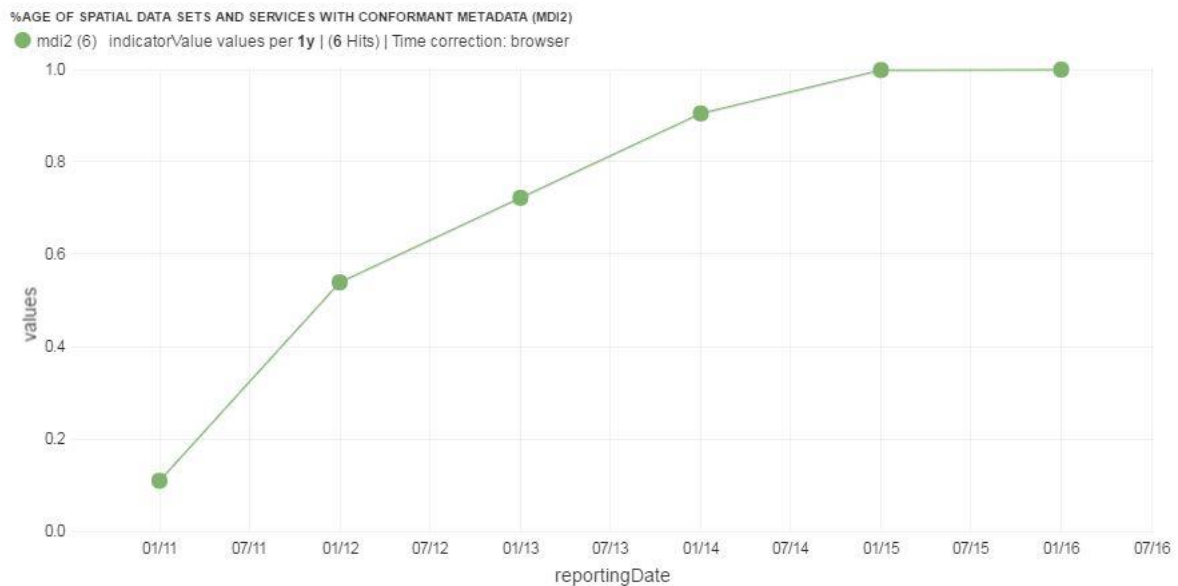
MDv1.4 (green): number of spatial data services that have metadata

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



#### d. Evolution of the overall conformity of the documented metadata

MDi2 = (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)



#### Evaluation of progress for step 2:

Italy 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, 100% of the Italian metadata conforms to the INSPIRE metadata specifications.

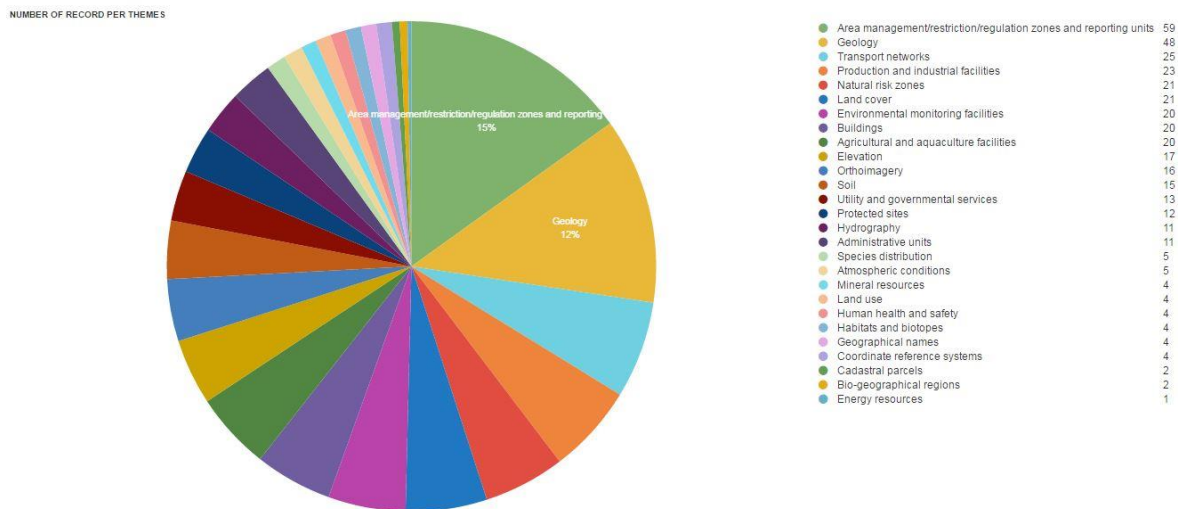
It shows a very high level of maturity.



## 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.



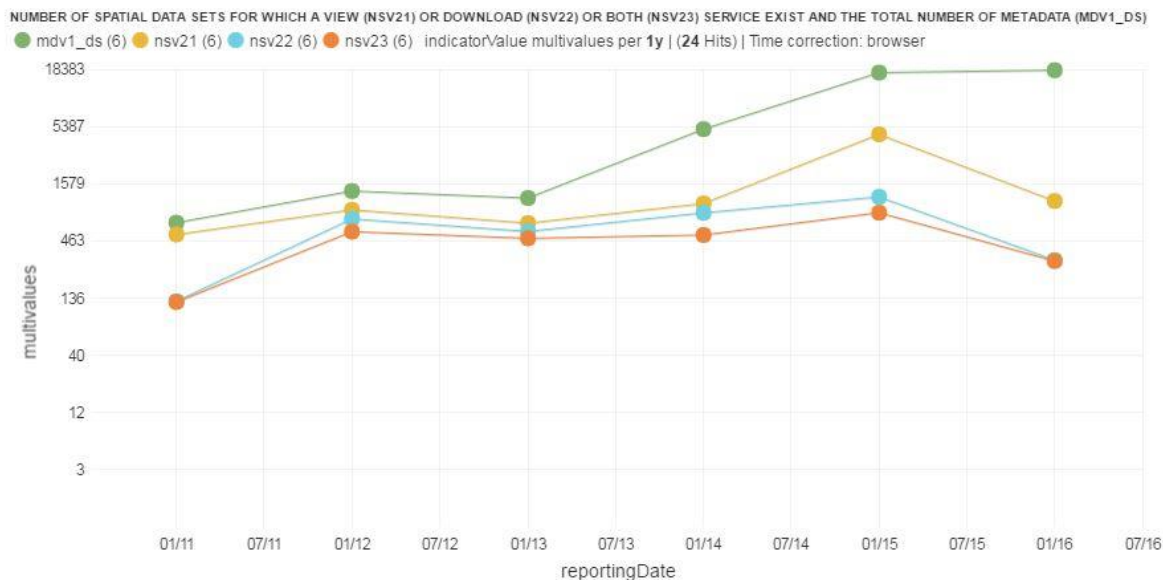
### b. Evolution of spatial data made accessible through digital services

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

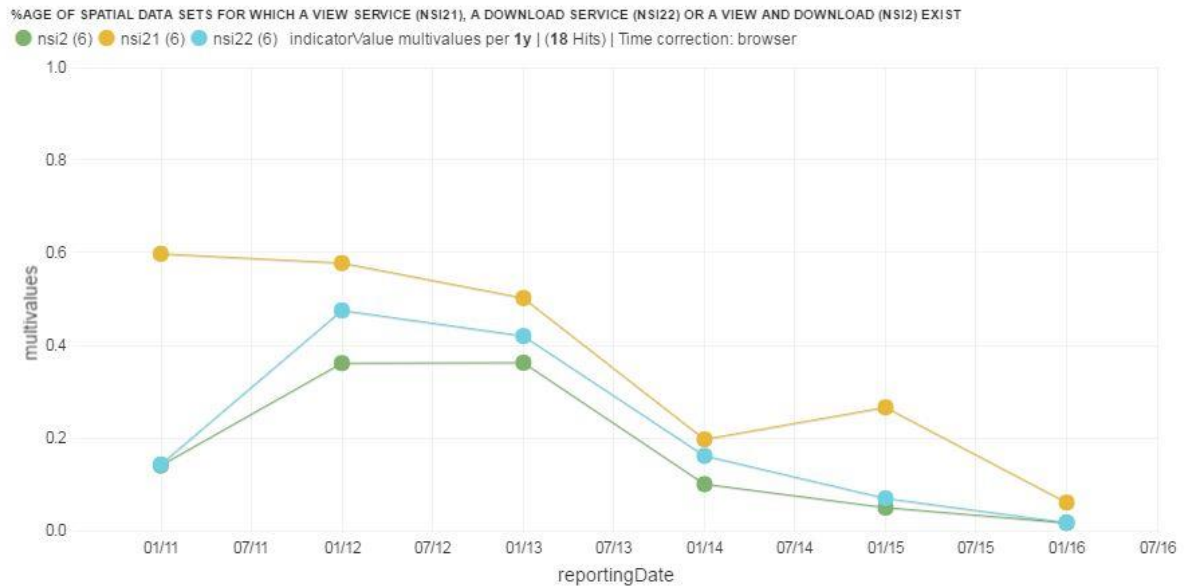
NSv2.3 (orange): number of spatial data sets for which both a view and a download service exists



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

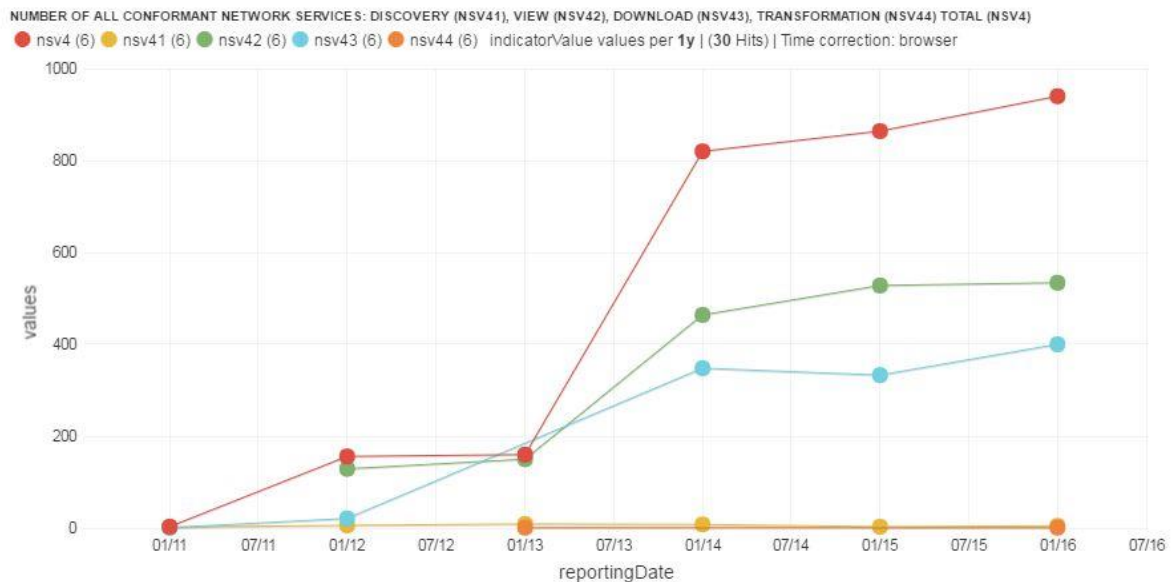
NSv4 (red): number of all conformant network services

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

NSv4.2 (green): 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:

Italy has:

- 6,06% of its data sets accessible for viewing through a view service;
- 1,70% of its data sets accessible for download through a download service.

**55,55% of the available digital services are conform to the INSPIRE network service specifications (940 out of 1692).**

Italy shows that it has built the necessary capacity and competences to make data accessible through digital INSPIRE network services. The offering is stagnating and a significant amount of the spatial data still has to be brought online. The technical conformity of the available services with the INSPIRE network service specifications is good. Italy should boost their effort to further improve the accessibility of their spatial data through digital INSPIRE services.

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

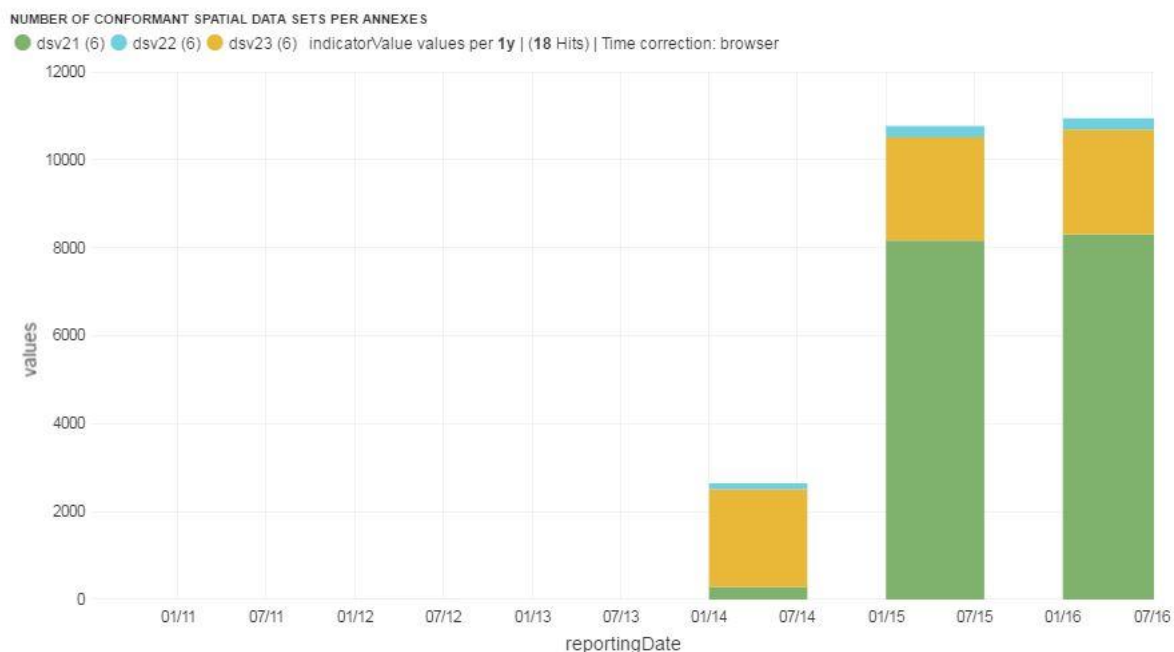
The interoperability of spatial data sets is an outlook on the readiness of Member States to make their spatial data interoperable according to the interoperability specifications laid down in the INSPIRE interoperability implementing regulation ([Commission Regulation \(EU\) No 1089/2010](#)). The deadlines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

**Italy has reported 10943 data sets to be conform to the INSPIRE interoperability specifications in 2015.**

We can conclude that Italy has well started its preparations for the 2017/2020 data interoperability deadlines.

### 3. Outlook

Italy has critically 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)*

- Coordination: **Establishment of a coordinating body**, that will put in place internal and external actions:
  - **Internal actions** (within coordinating bodies): identify available information and promote data publication and transformation
  - **External actions** (towards external bodies): identification of specific competences and responsibilities over a dataset; identification of datasets already produced by the Public Authority; identification of the data structure; support to the PA able to publish their current data, and train the ones that are not yet able to publish autonomously, and the ones that do not possess compatible data.
- **Promotion of the initiative**: the geoportal in the municipalities, piloted in the Metropolitan Area of Rome, constituted by 121 Municipalities. This pilot is intentionally on a complex case, and it will remain as best practice and a testbed for other municipalities.

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

- On data sharing, **the coordinating body will promote** the completion of Annex I data publication
- Italy clearly states that **they are willing to use the present and future collected data** for decision making processes related not only to environmental or reporting matters, but also to the wider land use planning and governance. Moreover, they are willing to adopt an open data strategy.
- Another action relates aims **to overcome the difficulties of small Public Administrations** to fund the right expertise/infrastructure that would enable harmonisation towards INSPIRE formats, that would feed the national data infrastructure with local data "ready to use". Such action includes the aggregation of small data providers, to join their efforts, the promotion of training and awareness packages, and also the proposal of streamlined legislative measures.

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

- **The coordination body will carry out an action** to support the conformity of the metadata to the INSPIRE legislation.

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

- At the end of 2015, 467 different network services were available, increasing by mid-2016 to 775 network services registered on the INSPIRE geoportal. The action on this respect is **to promote the network services harmonisation**.

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

- The coordinating body **will give priority to the harmonisation of the datasets already available**, and then will dedicate efforts to the other data, still within the INSPIRE deadline of 2020.

#### 4. Summary - How is Country doing?

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

Italy 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 - including in particular local municipalities - other Member States' administrations and EU institutions without procedural obstacles are not yet available.

Within Italy, the creation, management and publication of spatial information is often institutionally assigned to small municipalities, that are not able to make available spatial information in conformity with the standards required by the INSPIRE Directive due to lack of technological infrastructure and of qualified personnel.

Italy recently has started the preparation of legislative proposals to establish the necessary licences for overcoming the existing impediments to the sharing of spatial data. It should be noted though that in order to address the problems highlighted above the National Council for Spatial and Environmental Information (CNITA) was set up and aims to carry out a detailed assessment on how it can create an open data policy taking also into account the priorities defined in the Digital Single Market.

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

- Critically review the effectiveness of its 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.