



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

## COUNTRY FICHE Romania

<b>Introduction .....</b>	<b>1</b>
<b>1. State of Play.....</b>	<b>2</b>
1.1 Coordination.....	2
1.2 Functioning and coordination of the infrastructure .....	3
1.3 Usage of the infrastructure for spatial information .....	3
1.4 Data Sharing Arrangements.....	4
1.5 Costs and Benefits .....	4
<b>2 Key Facts and Figures .....</b>	<b>4</b>
2.1. Identification of spatial data with relevance to the environment (step 1) .....	5
2.2 Documentation of the data (metadata) .....	6
2.3. Accessibility of the data through digital services (step 3) .....	9
2.4. Interoperability of spatial data sets (step 4).....	11
<b>3. Outlook.....</b>	<b>12</b>
<b>4. Summary - How is Country doing?.....</b>	<b>13</b>
<b>Specific recommendations: .....</b>	<b>14</b>

### 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 Romania 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 Romania representatives.

## 1. State of Play

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

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

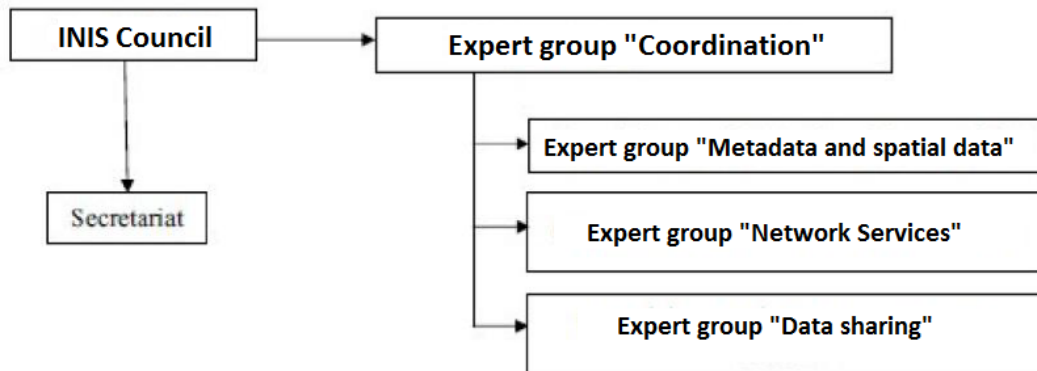
- **[Effectiveness]** How successful has the INSPIRE implementation been in achieving, progressing towards its objectives; progress made, gaps, what factors have influenced or why it has not yet been achieved regarding availability of services, data interoperability, sharing, data policy obstacles
- **[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	MINISTRY OF REGIONAL DEVELOPMENT AND PUBLIC ADMINISTRATION NATIONAL AGENCY OF CADASTRE AND LAND REGISTRATION
Mailing address	No. 202A Splaiul Independenței, 1st floor, sector 6, Bucharest
Telephone number	+40 21 317 73 39
Fax number	+40 21 316 52 24
E-mail	<a href="mailto:inspire@ancpi.ro">inspire@ancpi.ro</a>
Website address	<a href="http://www.ancpi.ro">http://www.ancpi.ro</a>
Contact person	Radu Codruț Ștefănescu (General Director)
Telephone number	+40 21 317 29 00
E-mail	<a href="mailto:office@ancpi.ro">office@ancpi.ro</a>
Contact person substitute	Constantin Ene
Telephone number	+40 731 606 232
E-mail	<a href="mailto:constantin.ene@ancpi.ro">constantin.ene@ancpi.ro</a>

- Coordination Structure



- The Government Order No 4/2010 establishing the National Infrastructure for Spatial Information in Romania has been republished in 2014. It lays down the legal framework for the establishment of the National Infrastructure Council for Spatial Information (INIS Council) which has a coordination role in the implementation of INSPIRE Directive and consists of 22 members of the central public authorities. **[Coherence] [Relevance]**
  - The presidency of the INIS Council is ensured by the National Agency for Cadastre and Land Registration (ANCP) and the vice-presidency is ensured by the Ministry of Environment, Water, and Forestry (MMP). In its activity, the INIS Council is assisted by four experts groups as shown above.
- Progress
  - During the reporting period, there have been aspects regarding the transposition of the INSPIRE Directive (EU Pilot 4899/13/ENVI) in Romania and adoption of the subsequent legislation clarified **[Relevance]**.
  - The leaders of the public institutions which have responsibilities in building and updating the INIS, can issue their own administrative acts in order to implement the decisions of the INIS Council **[Relevance]**.
  - The INIS expert groups have started their specific activities. **[Effectiveness]**
  - Information available through Romanian INSPIRE geoportal <http://geoportal.gov.ro/>

## 1.2 Functioning and coordination of the infrastructure

- The national INIS Geoportal has a new component called GeoCatalog (<http://geoportal.gov.ro/Geocatalog>). The new component enables the collection and management of data coming from the Geospatial Data Managers (GDM). Also, it provides instruments to generate metadata for the spatial data delivered by GDM.
- The INIS Geoportal of Ministry of National Defence can be accessed at: <https://inspire.geomil.ro>
- The INIS objectives promote the following principle: “unique data collection, multiple uses” **[Effectiveness]**.
- The INIS Council encourages the partnerships and cooperation between public institutions and authorities regarding the spatial data sharing **[Relevance]**.

## 1.3 Usage of the infrastructure for spatial information

- The indicators' values resulting from the monitoring of data and spatial data services during the period 2013-2016 are continuously increasing.
- All public authorities in Romania have downloaded from the INIS national geoportal the INSPIRE conformant dataset named “Administrative Units”. The public authorities are using it as reference data.
- The National Meteorological Administration has included the INSPIRE compliance requirements for the meteorological data (e.g. the meteorological parameters recorded by 31 weather stations and the corresponding metadata are exported in XML files compliant with the INSPIRE specifications. **[Coherence]**
- Also, the applications encoding the meteorological data in the table driven code format BUFR (Binary Universal Form for Data Representation) has been optimized to comply with the updating activities of the World Meteorological Organization (WMO). **[Coherence]**

## 1.4 Data Sharing Arrangements

- Different collaboration agreements between the public authorities have focused on the spatial data/information sharing **[Effectiveness]**.
- The INIS ensures a uniform framework for data sharing in Romania and the public access to information.
- The adopted measures on sharing spatial data at the national level have been listed in Annex 5 of the Government Decision No 579/2015 **[Coherence]**
- Data sharing agreements between National Agency of Cadastre and Land Registration (ANCPI) and the following public institutions:
  - - Ministry of Health
  - - Ministry of Communications and Information Society
  - - National Museum of Romanian History
  - - National Institute of Statistics
  - - City Hall of the Bucharest Municipality **[Relevance]**.
- The Special Telecommunications Service (STS) has signed agreements with ANCPI and Ministry of National Defence for using spatial data in emergency situations, the command and control centres, critical infrastructure and '112' Single emergency call number **[Relevance]**.

## 1.5 Costs and Benefits

- The public authorities involved in the creation and updating of INIS have not provided a detailed list of INSPIRE-related costs for each activity performed, personnel, hardware and software, during the period 2013 – 2015.
- In 2016, the necessary funds were approved for the National Meteorological Administration to design and develop an Information System named GEOMET INSPIRE **[Efficiency]**
- The ANCPI project named "Inspire – Coherent fundamental decisions at national level, a unitary European framework" SMIS code – 37956, was approved and it is co-financed by the European Social Fund by the Operational Programme Administrative Capacity Development Operational Programme 2007-2013 **[Efficiency]**
- The ANCPI is responsible for the INSPIRE theme "Cadastral Parcel". Even if the cadastral parcels and the related services (view and download) are not discoverable through the INIS geoportal, they generate revenues used by ANCPI to co-finance the National Plan for Cadastre and Land Registration for 2015- 2023 **[Effectiveness]**.
- The Military Topographic Department (DTM) has created, validated, and published the metadata using the existing resources of the EU INSPIRE geoportal, Romanian INSPIRE geoportal, and INIS Geoportal of Ministry of National Defence **[Effectiveness]**.
- INIS contributes to the improvement of quality and the reduction of the costs corresponding to the geospatial information **[Effectiveness]**.
- Increased interoperability within the information system necessary for the implementation of the central and local public authorities' projects.
- Overall, it has been noticed a wider use of the datasets and spatial data services, thus proving the benefits of the INIS **[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.

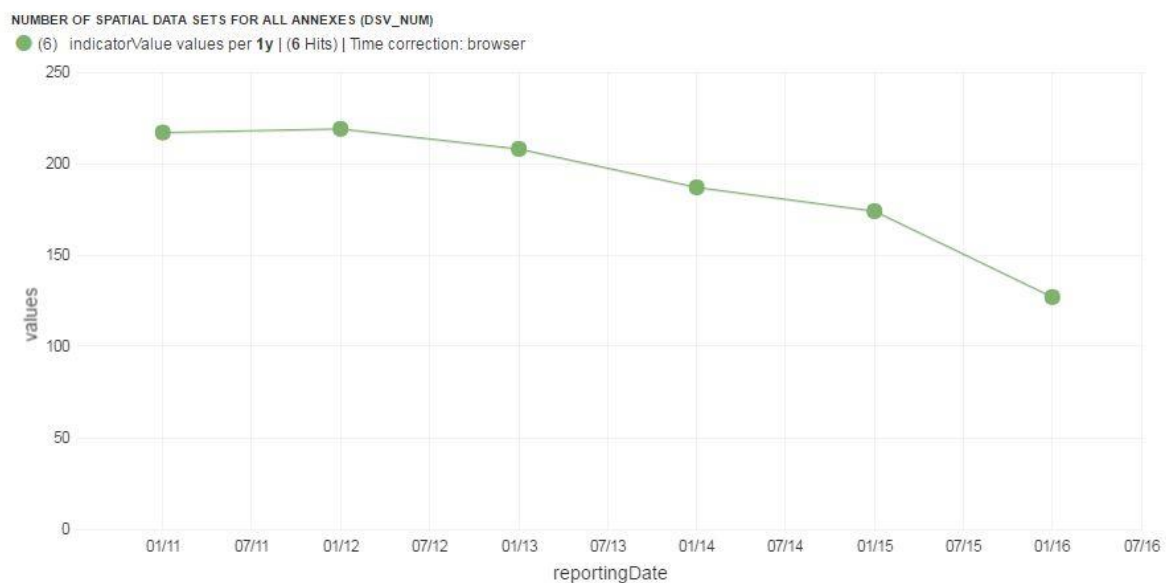
The key facts and figures presented in this country fiche are based on the information provided by Romania on the [INSPIRE dashboard](#). **The provided statistics is not reflecting the data available on [INSPIRE geoportal](#).** The INSPIRE geoportal is updated on a regular and ongoing basis, whilst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

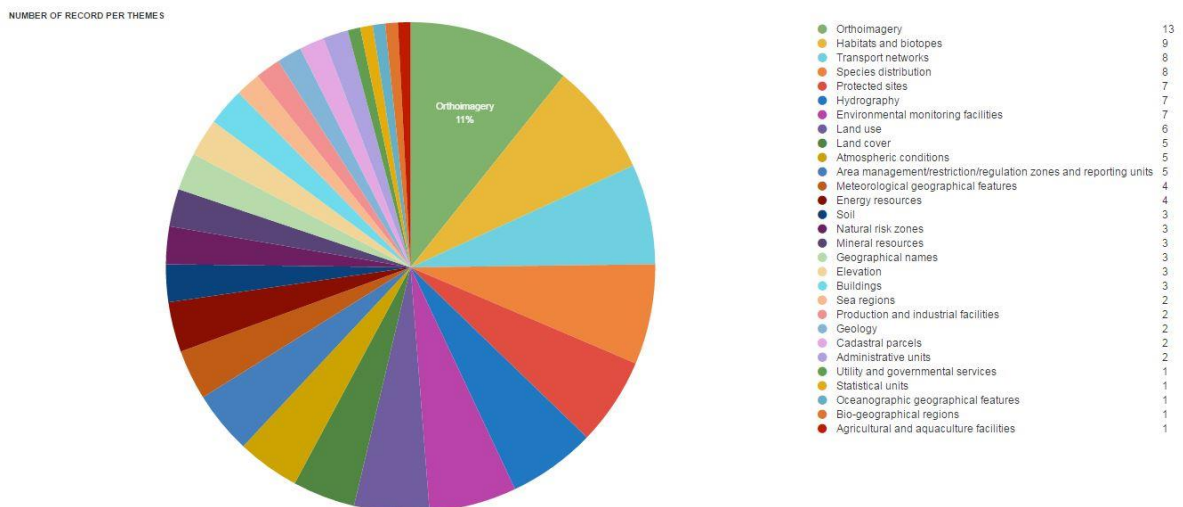
## 2.1. Identification of spatial data with relevance to the environment (step 1)

### a. Evolution of the data offering

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

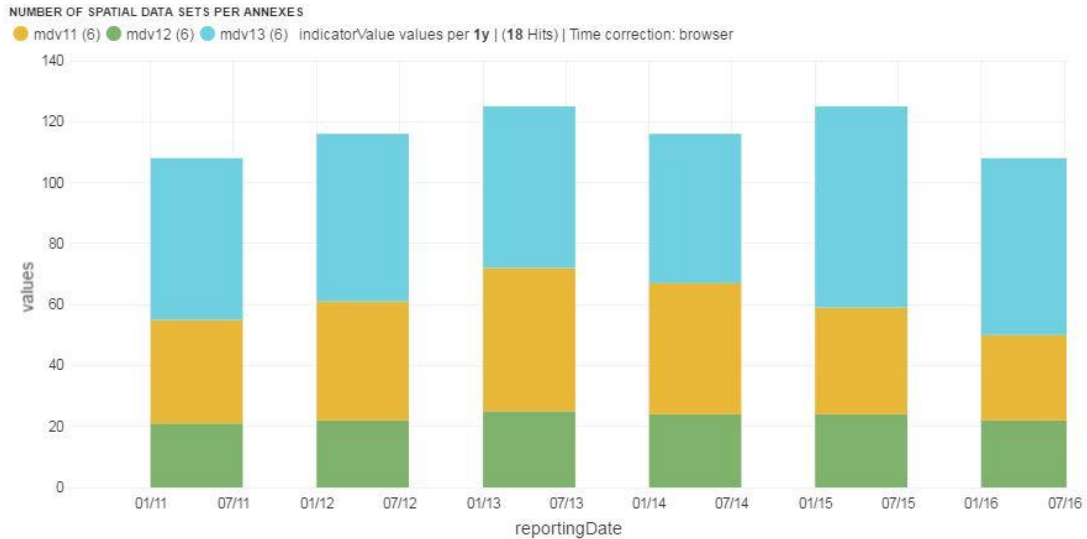


### b. Data sets made available per INSPIRE theme in 2015



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

MDv1.1 (yellow): 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 (blue): number of spatial data sets for Annex III that have metadata



**Evaluation of progress for step 1:**

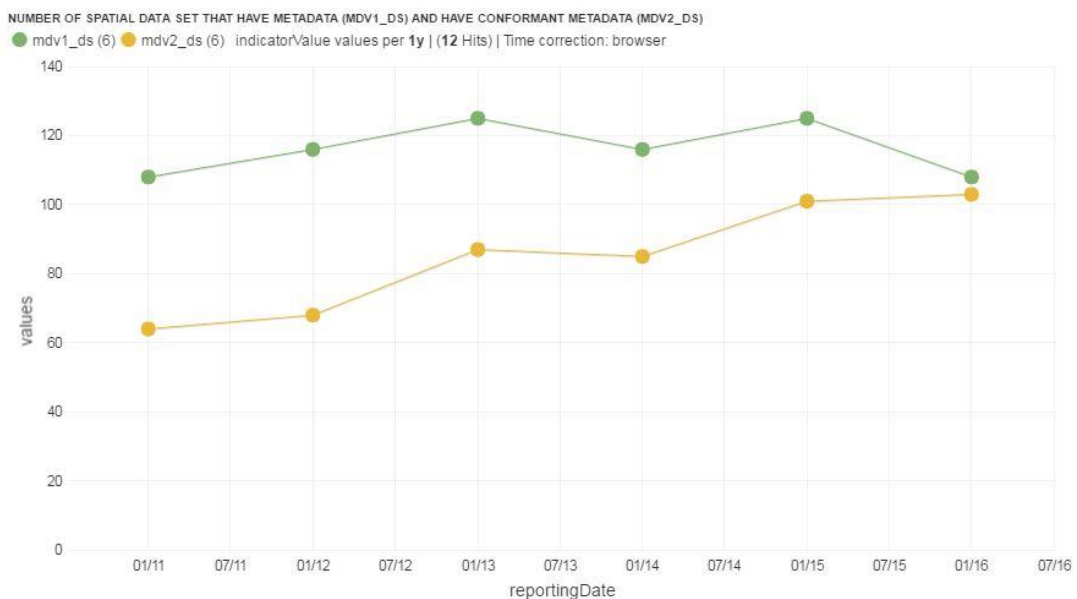
**Romania has identified a total of 127 spatial data sets with relation to the themes listed in the INSPIRE annexes.**

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)**

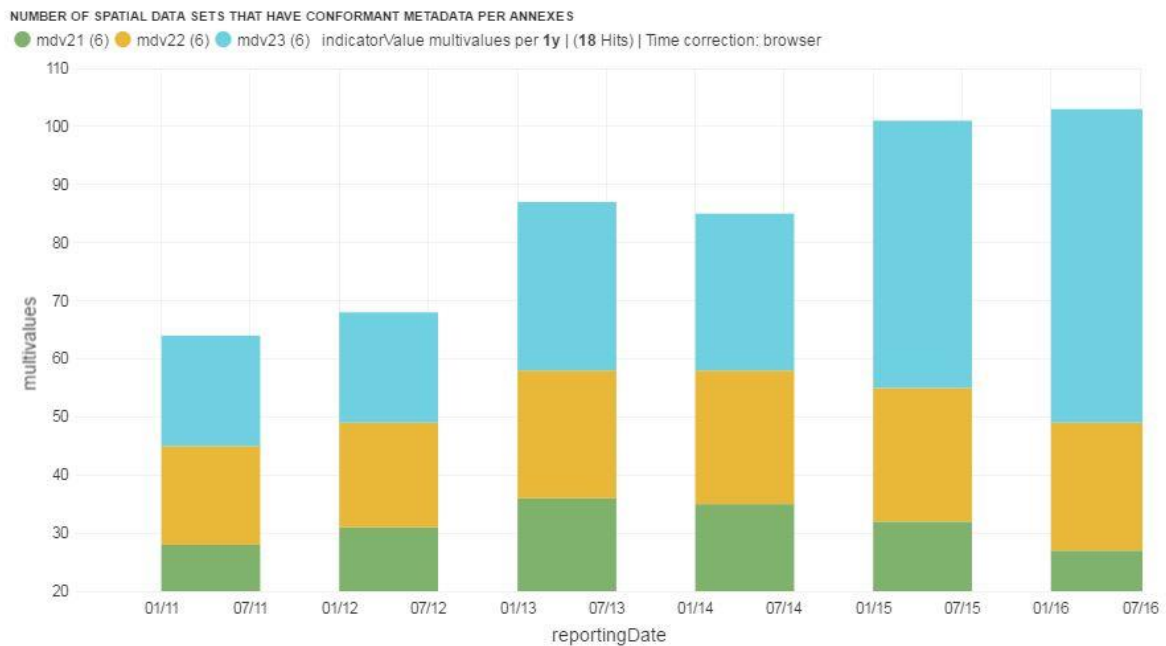
*a. Evolution of documented data and conformity of the documentation*

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



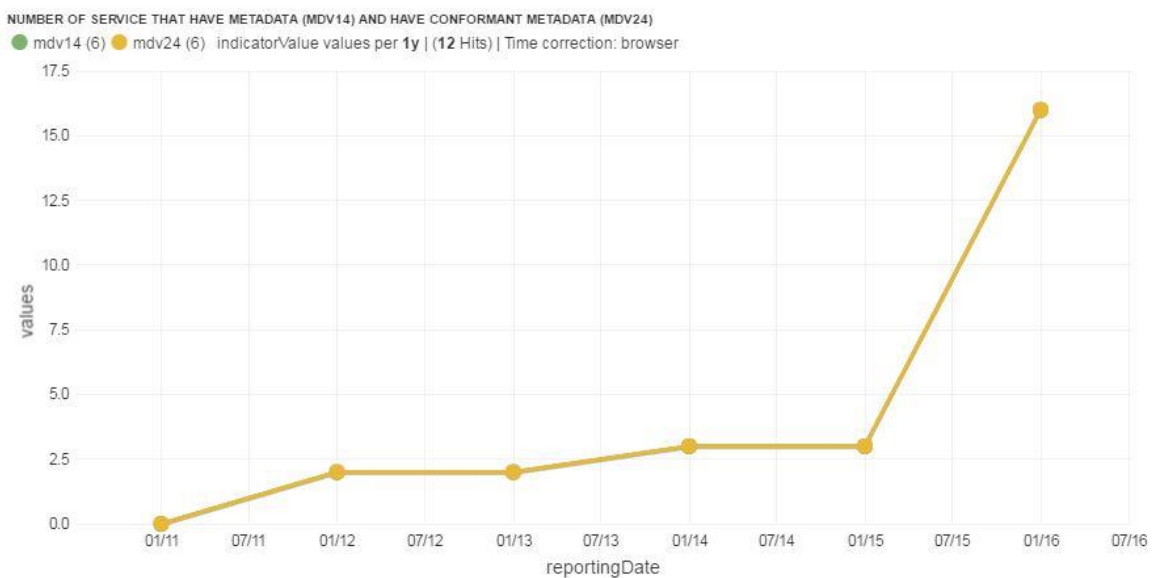
### b. Documented data per annex in 2015

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

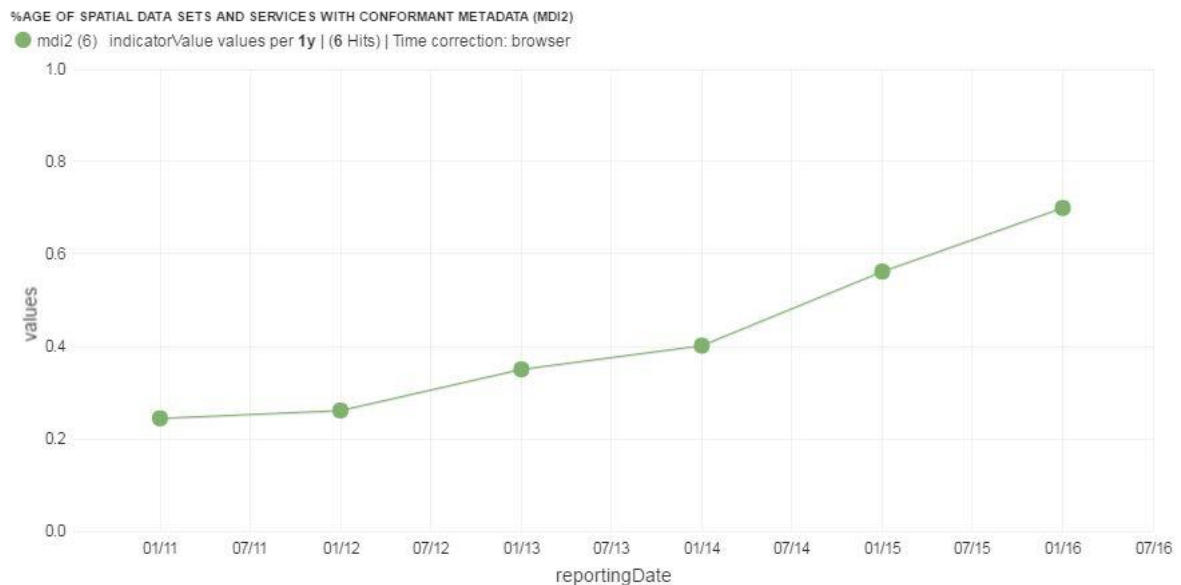
MDv1.4 (green): number of spatial data services that have metadata  
 MDv2.4 (yellow): number of spatial data services that have conformant metadata





#### 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:

Romania has documented and published metadata through a digital discovery service for 85,04% (108 out of 127) of the identified spatial data sets and 37,21% (16 out of 43) of the digital services. Overall, 70% of the Romania metadata conforms to the INSPIRE metadata specifications.

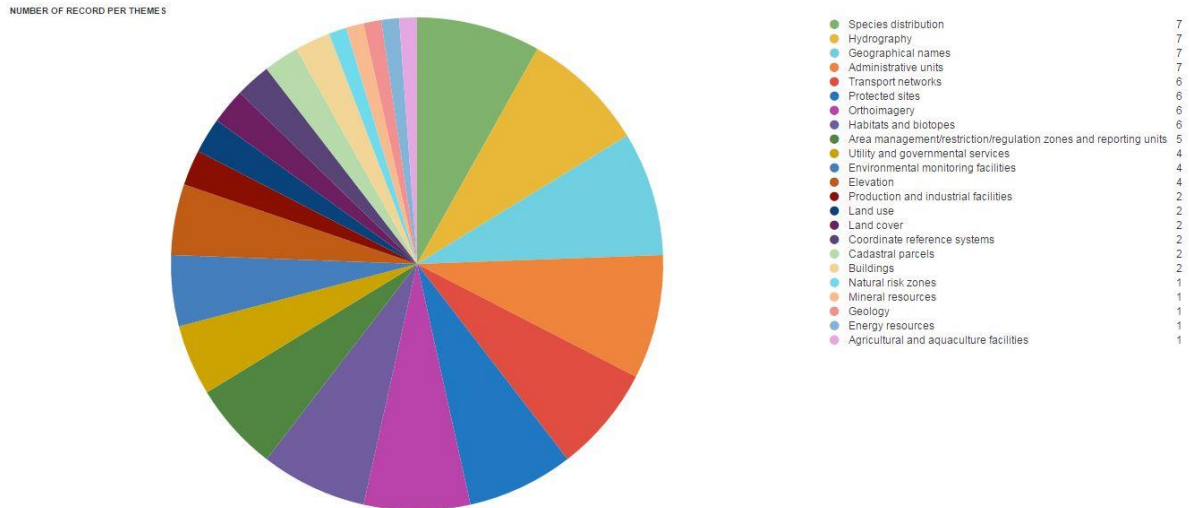
Overall progress is on the right track. The documentation of digital services is lagging behind and should be improved. To support data discovery for the end-users of the INSPIRE infrastructure, Romania should also aim to achieve better technical conformity of the available metadata.



## 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.



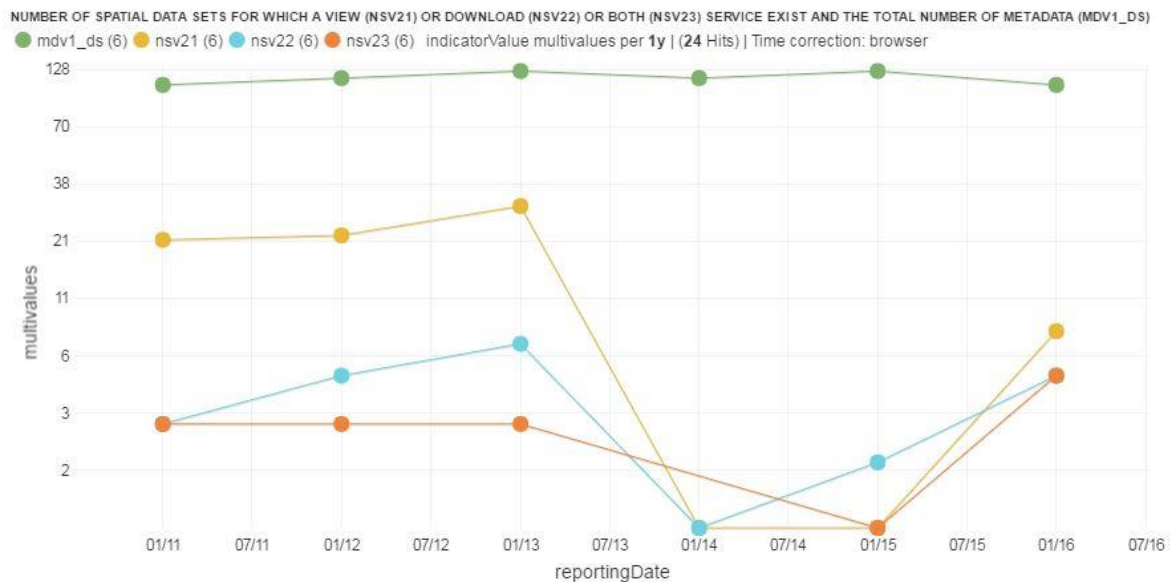
### b. Evolution of spatial data made accessible through digital services

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



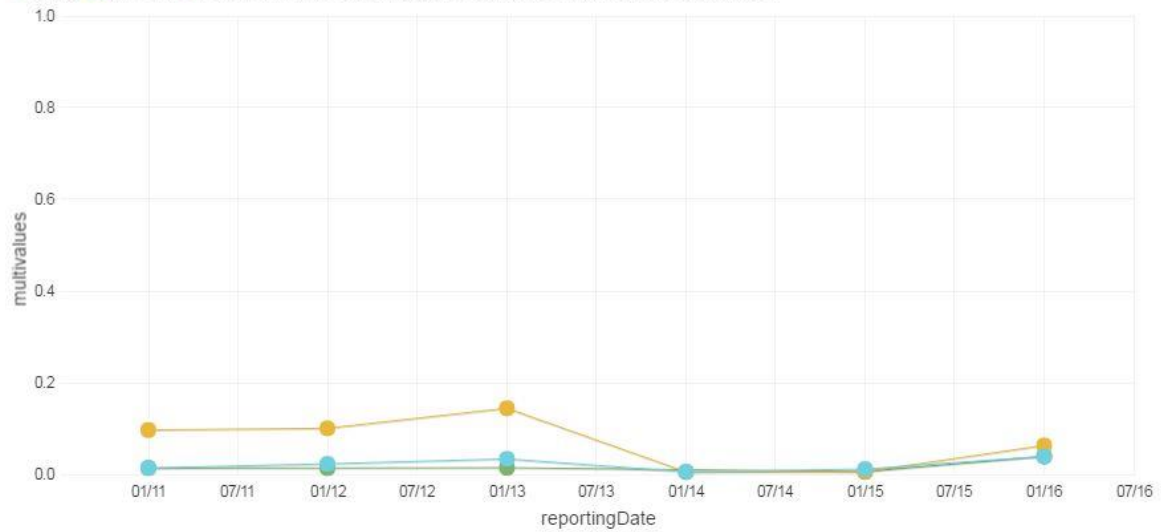
NSi2 (green) = number of spatial data sets for which both a view and a download service exists / number of spatial data sets for all Annexes

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

%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 (green): number of conformant discovery network services

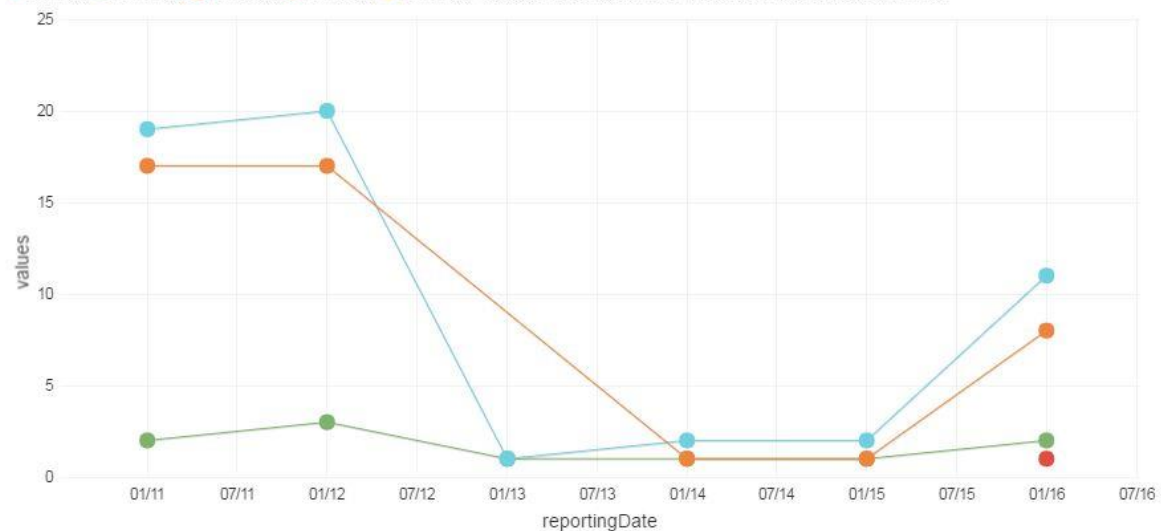
NSv4.2 (orange): number of conformant view network services

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:

Romania has:

- 6,30% of its data sets accessible for viewing through a view service;
- 3,94% of its data sets accessible for download through a download service.

**42,30% of the available digital services are conform to the INSPIRE network service specifications.**

Romania should boost their effort to further improve the accessibility of their spatial data through digital INSPIRE services. The technical conformity of the available services with the INSPIRE network service should be also improved.

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

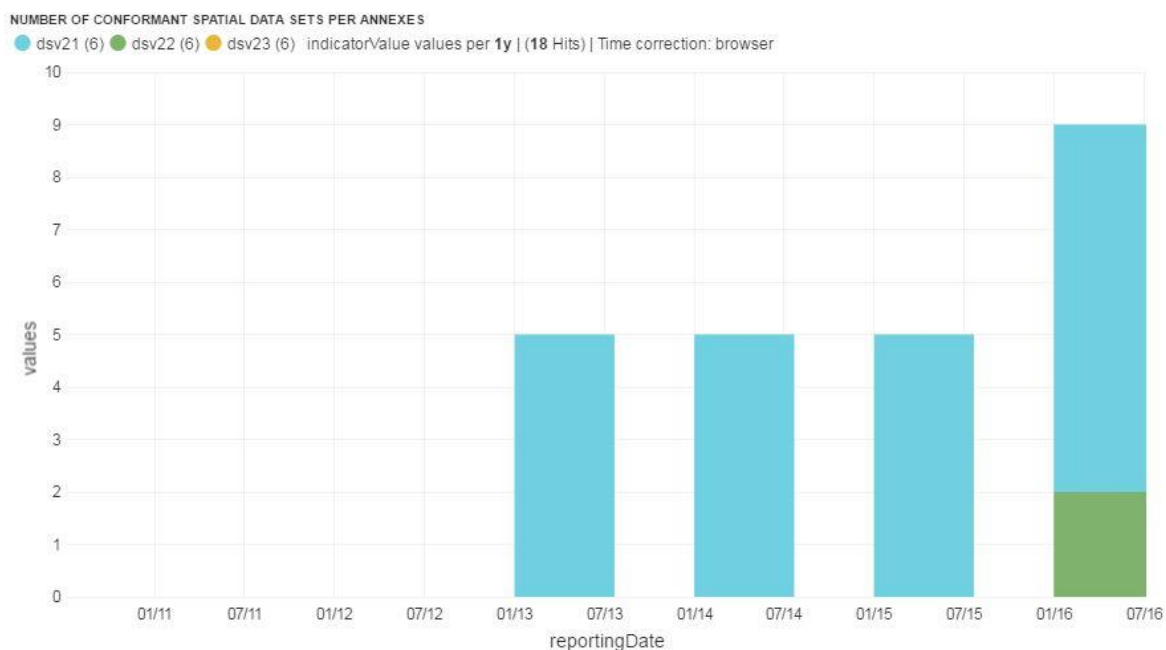
The interoperability of spatial data sets is an outlook on the readiness of Member States to make their spatial data interoperable according to the interoperability specifications laid down in the INSPIRE interoperability implementing regulation ([Commission Regulation \(EU\) No 1089/2010](#)). The deadlines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



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

**Romania has reported 9 data sets to be conform to the INSPIRE interoperability specifications in 2015.**

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

### 3. Outlook

Romania has 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.

#### *a. Coordination (1.1; 1.2)*

- The public authorities involved in creating and updating the INIS will provide (ensure) the necessary personnel to fulfil the responsibilities arising from Government Order No 579/2015.
- The public authorities involved in creating and updating INIS will establish internal procedures to ensure the confidentiality of personal data in accordance with Law No 677/2001 on the protection of individuals with regard to the processing of personal data and on the free movement of such data.
- The public authorities involved in the creation the INIS will develop regulations and procedures used to manage spatial datasets and network-enabled services (modify and/or update) and to record and document the changes between different spatial datasets versions.
- Substantiate and get the financial support through annual budget laws to support the necessary technical conditions that are necessary to provide spatial data sets and network-enabled services.
- Accessing EU eligible funds to carry out the specific activities in order to provide spatial data sets and network-enabled services.
- After reaching the Directive's deadlines, the spatial data and network-enabled services of the INIS will be update and maintain.

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

- Identify the datasets that should be updated; update the datasets if it is necessary.
- The public authorities will identify those datasets covered by the Law No 109/2007 on the re-using of information produced by the public sector institutions.

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

- The action plan does not provide any information regarding the metadata.

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

- Purchase the services necessary to maintain and develop the INIS geoportal (Government Order No 4/2010).
- Purchase the services necessary for create, maintain, and develop the informatics applications for the public authorities.
- Public authorities mentioned in Government Order No 579/2015 will purchase training services necessary for their staff involved in creating spatial data and network-enabled services.
- To meet their obligations under Government Order No 579/2015, the public authorities who have a role in supplying network-enabled services, will use the communication security services provided by the Special Telecommunications Service (STS)

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

- The action plan outlines the deadline for harmonisation of spatial data sets and spatial data services corresponding to the spatial data themes listed in Annex I, II.4, and III to Directive 2007/2/EC.
- If it is necessary, the public authorities who provide network-enabled services, will develop a mechanism to ensure the relevant spatial datasets in-house are compliant with the INSPIRE Directive (IRs).

## 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.

Romania 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 but not yet fully implemented. Romanian public authorities are obliged to share spatial data free of charge between public administrations. Lack of resources, knowledge and collaboration has delayed the implementation. A recent update of the legal framework for the National Infrastructure for Spatial Information, backed-up by the necessary funding for implementation should address the existing bottlenecks and implementation gaps.

Assessments of monitoring reports issued by Romania and the spatial information that Romania 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.

During the bilateral meeting, Romania made a number of comments regarding technical issues related to documentation of the data sets and provision of services. Although a number of follow up actions have been already taken, other still need to be planned (see the Conclusions/follow up of the Summary Report Ro of bilateral meeting).

### *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.