



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

## COUNTRY FICHE Cyprus

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

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

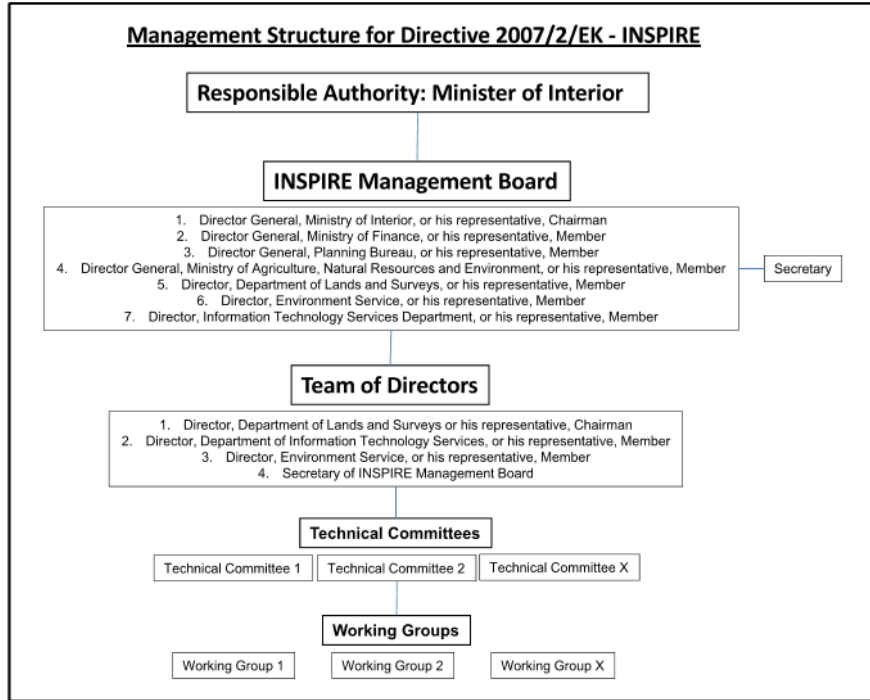
- **[Effectiveness]** How successful has the INSPIRE implementation been in achieving, progressing towards its objectives; progress made, gaps, what factors have influenced or why it has not yet been achieved regarding availability of services, data interoperability, sharing, data policy obstacles
- **[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

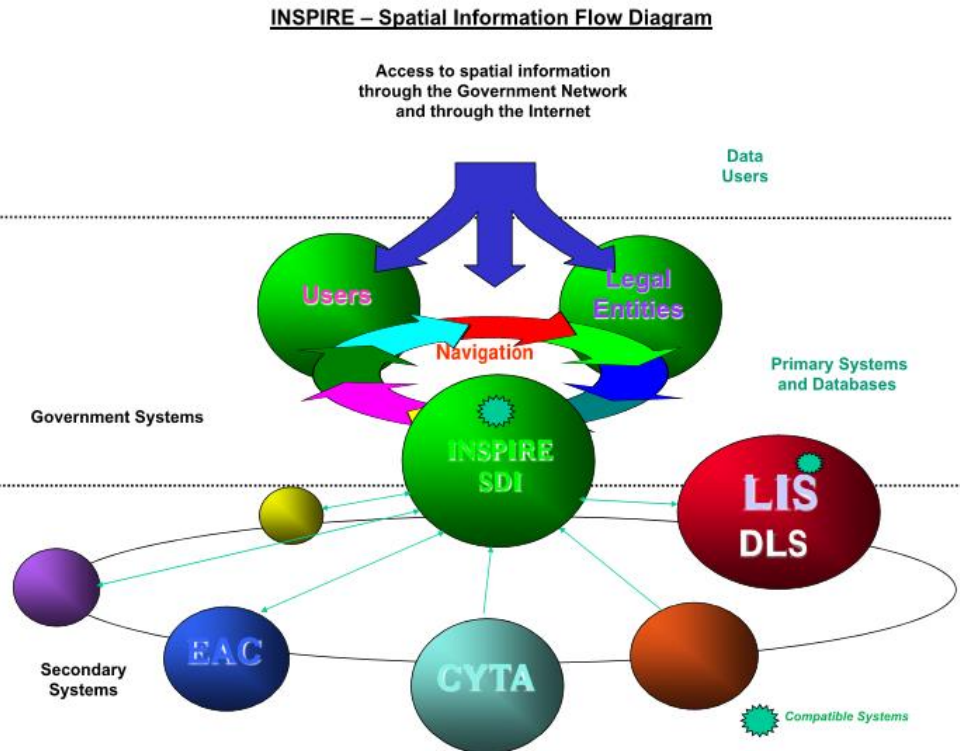
Name of public authority	Ministry of the Interior
Mailing address	Dimostheni Severi Avenue, 1453, Nicosia Cyprus
Telephone number	
Fax number	(+ 357) 22 867872
E-mail	
Website address	www.moi.gov.cy
Contact person	Andreas Hadjiraftis, Secretary for PPP and Contact Point
Telephone number	(+ 357) 22 867813
E-mail	ahadjiraftis@dls.moi.gov.cy
Contact person substitute	Anthi Koukkouri-Lakkotrypi, Representative, Ministry of the Interior
Telephone number	(+ 357) 22 804819
E-mail	alakkotrypi@dls.moi.gov.cy

- Coordination Structure



The Ministry of the Interior of the Republic of Cyprus, based on the Law N.43 (I) /2010, has undertaken a coordinating role in the implementation of the INSPIRE Directive in Cyprus, while the Department of Lands and Surveys, the Department of Information Technology Services and the Department of Environment have undertaken a leading role in its organisation and implementation. Under the legislation, provisions are made for the creation of a Management Council, a Management Team, Technical Committees and Working Groups, as shown in detail in the diagram above.

The following diagram describes the interaction of the main actors involved in the development and operation of the INSPIRE spatial data infrastructure:



- Progress

Cyprus has made good progress on INSPIRE implementation since 2014. To remediate the delay on INSPIRE implementation which led to a legal pilot against Cyprus, Cyprus has initiated the following projects in 2014 which have led to implementations in 2015 and operational systems in 2016: **[Effectiveness]**

1. INSPIRE strategic plan and preparation of internet applications and data.
2. Preparation of a strategic plan for the Department of Lands and Surveys (DLS) and of three written calls for the further development of the new Land Information System (LIS), the development of an infrastructure for spatial and other data in Cyprus and the establishment of a pilot programme.
3. Development of a geoportal at the DLS (DLS portal).

The new [strategic plan](#) for implementing the INSPIRE programme, includes a detailed analysis of the current state of play, it details the risks and costs and provides recommendations on how to fully comply with the Directive and the timetables.

The spatial data was documented and published in a catalogue and these metadata were posted on 14 January 2016 on the geoportal of the Republic of Cyprus at [www.geoportal.gov.cy](http://www.geoportal.gov.cy).

## 1.2 Functioning and coordination of the infrastructure

- The INSPIRE Directive was transposed in the national law of the Republic of Cyprus with the enactment of Law N.43(I)/2010 on 14 May 2010.
- Cyprus connected their national discovery service to the EU geoportal, allowing for the publication of metadata for the available spatial data sets and services on the EU geoportal.
- The catalogue of spatial data and services is generated by the Ministry of the Interior and is to be completed by all responsible parties under Law N.43 (I)/2010.
- Information is available through the geoportal of the Republic of Cyprus at [www.geoportal.gov.cy](http://www.geoportal.gov.cy).
- Following issues identified in the strategic plan for the development of INSPIRE in Cyprus, recommendations were made and are gradually being implemented under the governance of the INSPIRE Management Board to optimize the functioning and coordination of the infrastructure.
- The Department of the Environment is represented in the coordination structure and has started to address the provisions of the INSPIRE Directive in relation to other EU Environmental Directives.
- Six years after the enactment of Law N.43 (I) / 2010 and the transposition of the INSPIRE Directive the application still shows some bottlenecks that need further addressing such as:
  - Incomplete application of rules
  - Non-interoperable information systems
  - Lack of expertise
  - Time consuming procedures for further upgrading the LIS and the national portal.

## 1.3 Usage of the infrastructure for spatial information

- Public authorities are using the infrastructure for different tasks e.g. town planning, environmental studies, network development (water, sewerage, telecom, electricity ...), census, web applications. **[Relevance]**
- The general public has access to the spatial data through the national geoportal and the DLS Land Information System (LIS). No concrete numbers on the use are provided, but it is expected that the public access and use will boost now the geoportal is available and the supporting DLS LIS is updated.
- Cross-border use of the infrastructure is limited to participation in European initiatives such as EuroGeographics and international projects.

## 1.4 Data Sharing Arrangements

- Most of the data are available for free access and use. Only a small number of data are available for a very small fee. The current data-sharing application used in the Republic of Cyprus can be considered adequately successful and effective. **[Effectiveness]** Further use of the electronic services already created will, in the near future, indicate whether the existing policy needs to be adjusted slightly.

- The obligation to establish rules for the sharing of spatial under a single licensing framework is described in Law N.43 (I) / 2010. These rules will become more concrete with the further implementation of the national geoportal.
- The provisions relating to the sharing of spatial data among the public authorities of Cyprus will be applied in the same manner to public authorities of other EU member states and EU institutions, solely for environment related purposes.

### 1.5 Costs and Benefits

- The cost for the further development of the current National Geospatial Information Infrastructure cannot yet be determined.
- Costs are divided into three categories: infrastructure development cost, cost of production of basic geospatial reference data, and compliance costs for data producers.
- Concrete strategic actions, their implementation costs (human resources and budget) and the roadmap for implementation are outlined in the [strategic plan](#) (p.68 – p.71). The implementation report contains an extract from this strategic plan with information on estimated costs of the strategic actions for the implementation of the infrastructure.
- Many qualitative benefits are outlined such as the rationalization of the economic investments and of the operational costs, thanks to the removal of duplications; a stronger participatory democracy and better competitiveness thanks to the public access to data, growing transparency and data sharing. **[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 Cyprus 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.

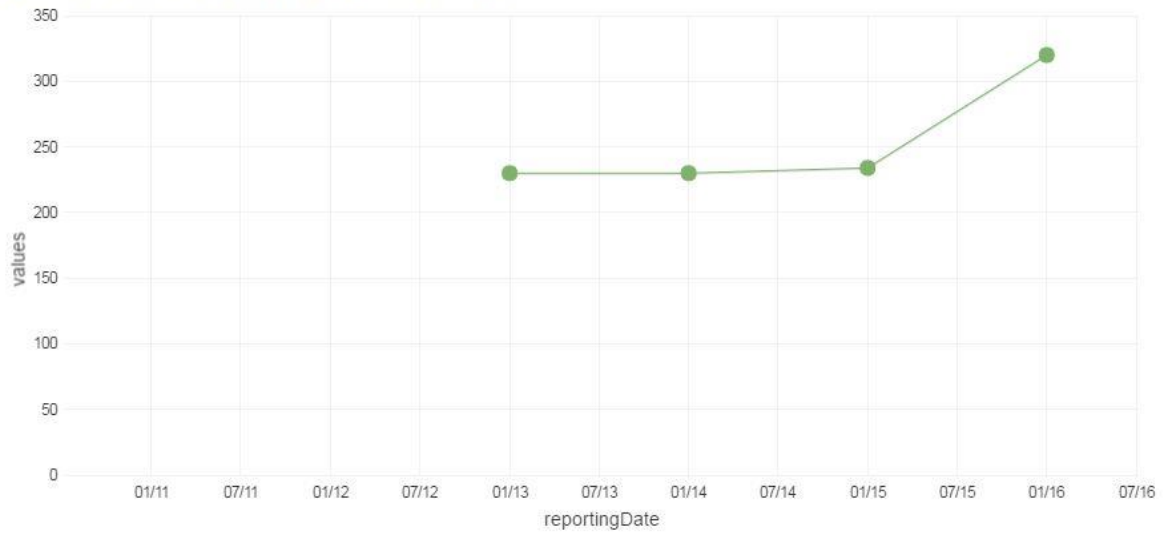
## 2.1. Identification of spatial data with relevance to the environment (step 1)

### a. Evolution of the data offering

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

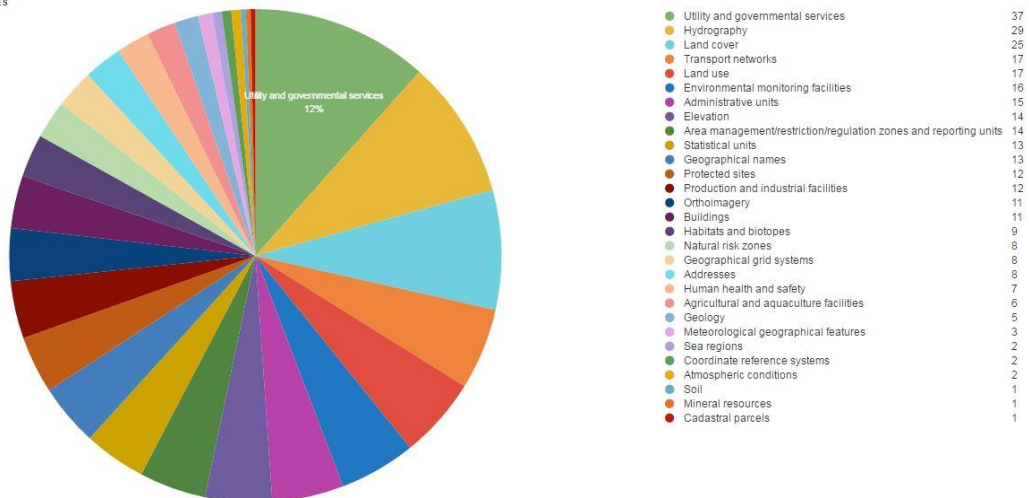
NUMBER OF SPATIAL DATA SETS FOR ALL ANNEXES (DSV\_NUM)

● (4) indicatorValue values per 1y | (4 Hits) | Time correction: browser



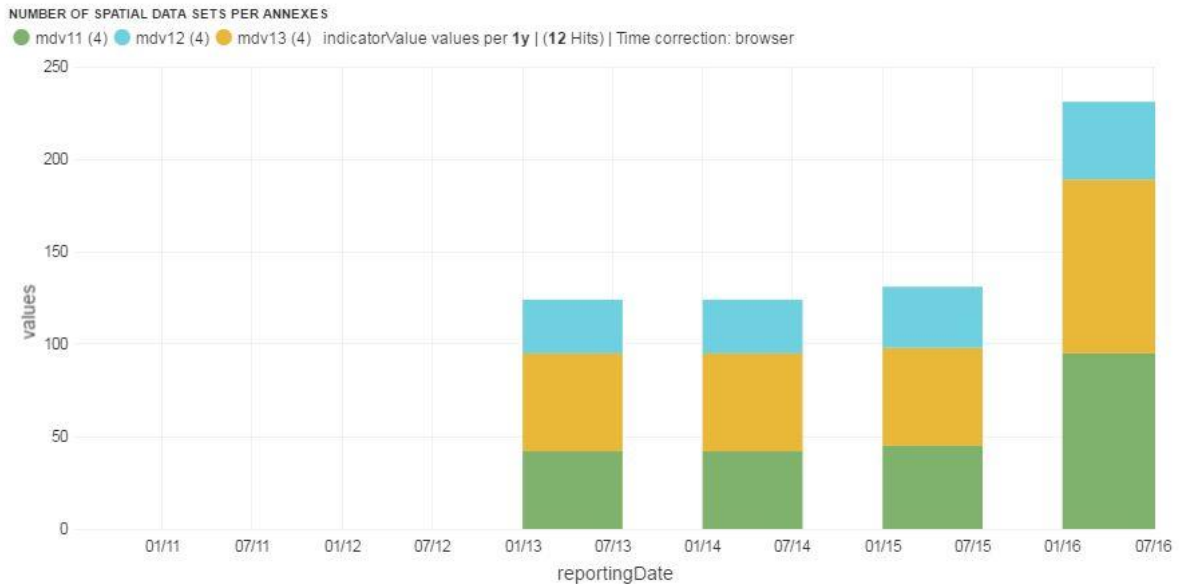
### b. Data sets made available per INSPIRE theme in 2015

NUMBER OF RECORD PER THEMES



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

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

**Cyprus has identified a total of 320 spatial data sets with relation to the themes listed in the INSPIRE annexes.**

A lot of relevant spatial data sets have already been identified for the different data themes. The big progress could be seen in the last two years. Cyprus could further improve by identifying and documenting spatial data sets required under the existing reporting and monitoring regulations of EU environmental law.

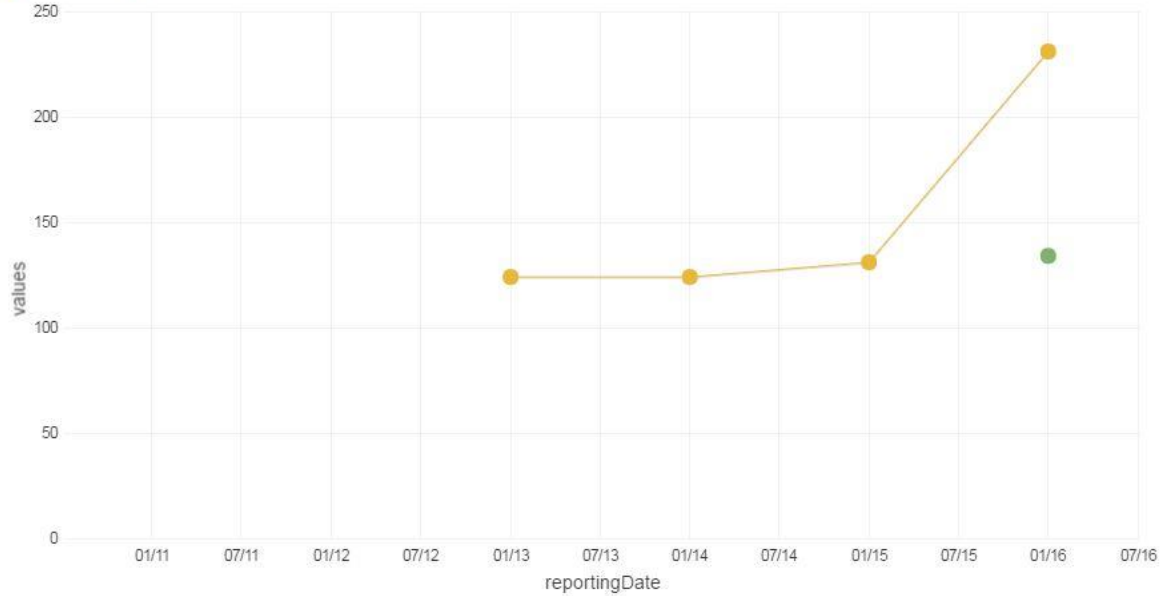
## 2.2 Documentation of the data (metadata) (step 2)

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

MDv1\_DS (yellow): number of spatial data sets for all Annexes that have metadata

MDv2\_DS (green): 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 (4) ● mdv2\_ds (4) indicatorValue values per 1y | (8 Hits) | Time correction: browser



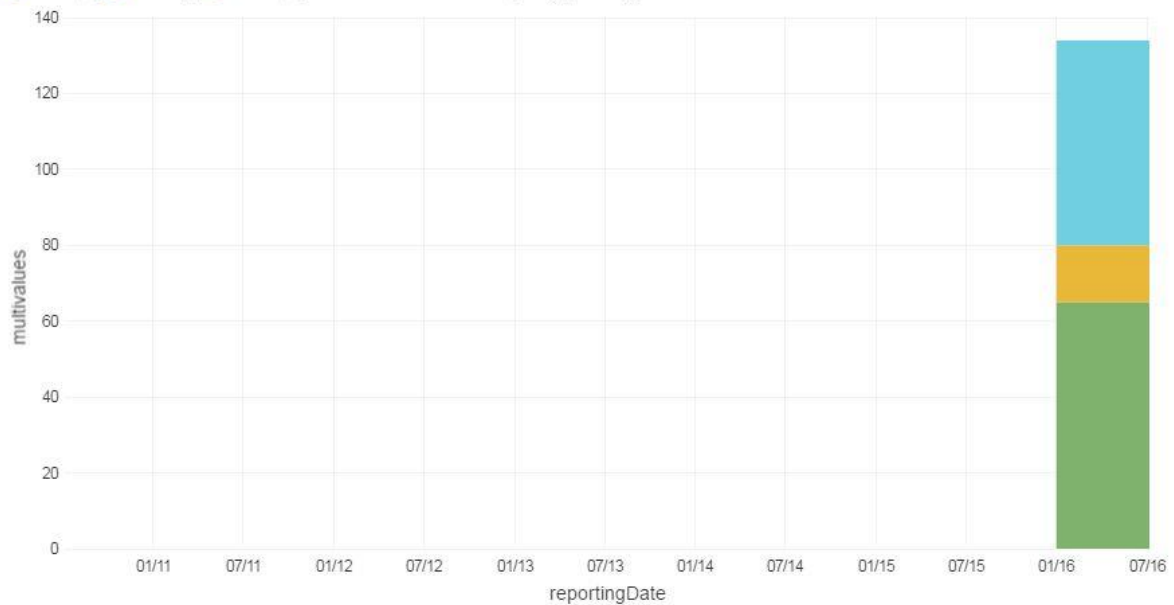
### b. Documented data per annex in 2015

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 (4) ● mdv22 (4) ● mdv23 (4) indicatorValue multivalues per 1y | (12 Hits) | Time correction: browser

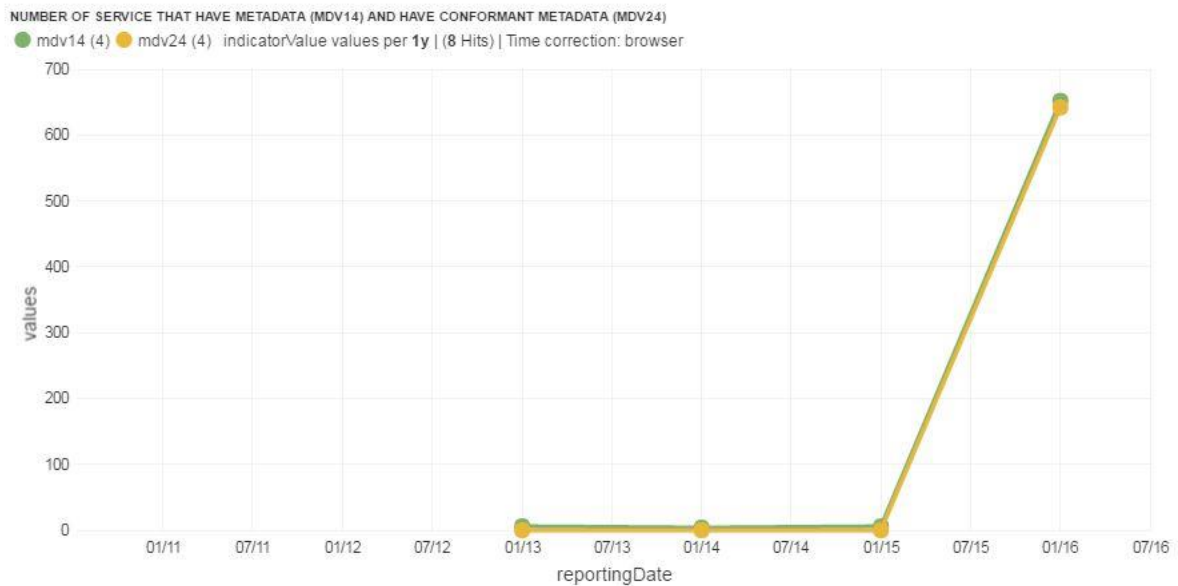




### c. Evolution of documented services and conformity of the documentation

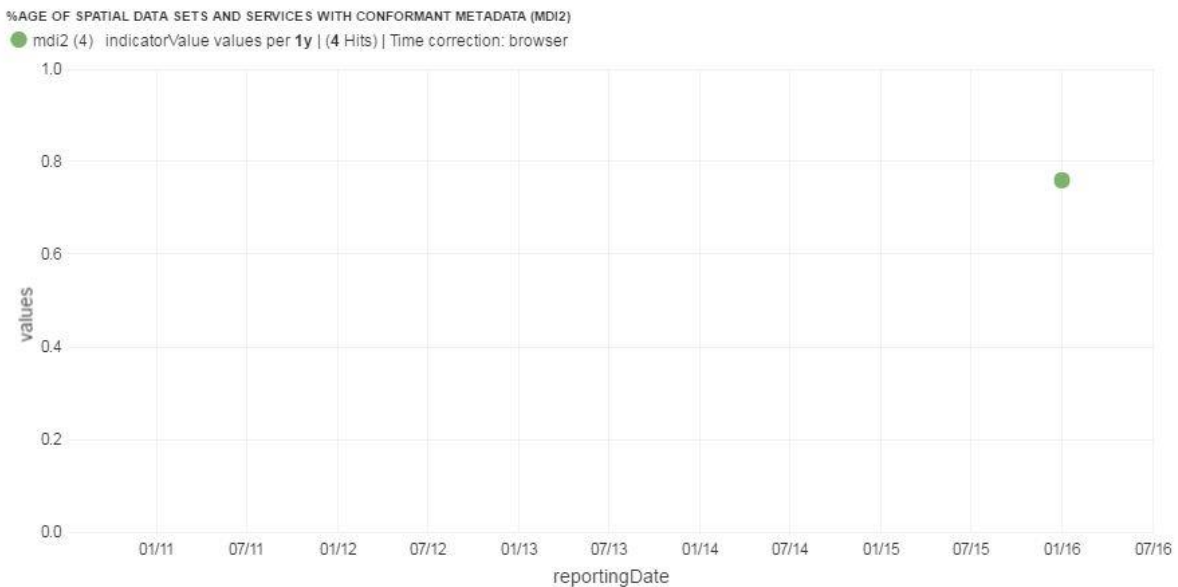
MDv1.4 (green): number of spatial data services that have metadata

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



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

MDi2 = (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:

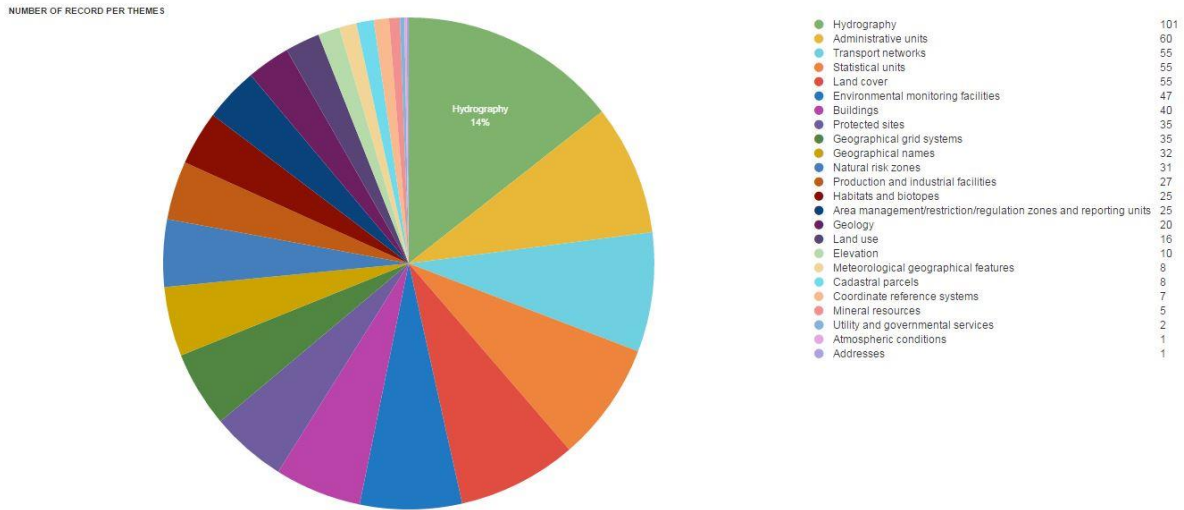
Cyprus has documented and published metadata through a digital discovery service for 72,18% (231 out of 320) of the identified spatial data sets and 93% (652 out of 701) of the digital services. Overall, 76% of the metadata conforms to the INSPIRE metadata specifications.

It shows a high level of maturity. However, documentation on identified data sets should be further improved together with conformity.

### 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.



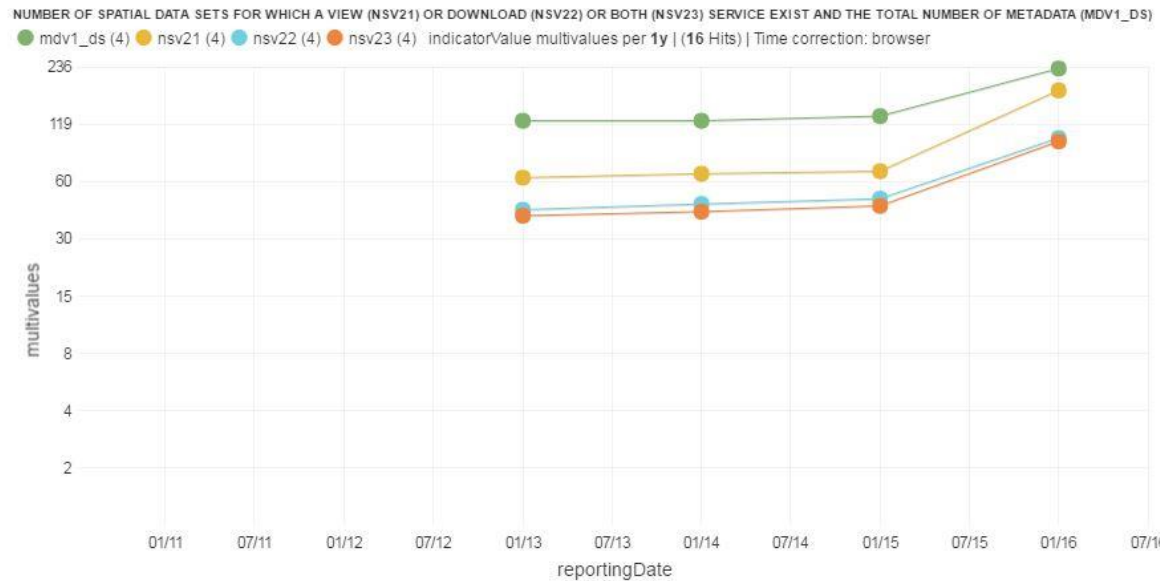
#### b. Evolution of spatial data made accessible through digital services

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



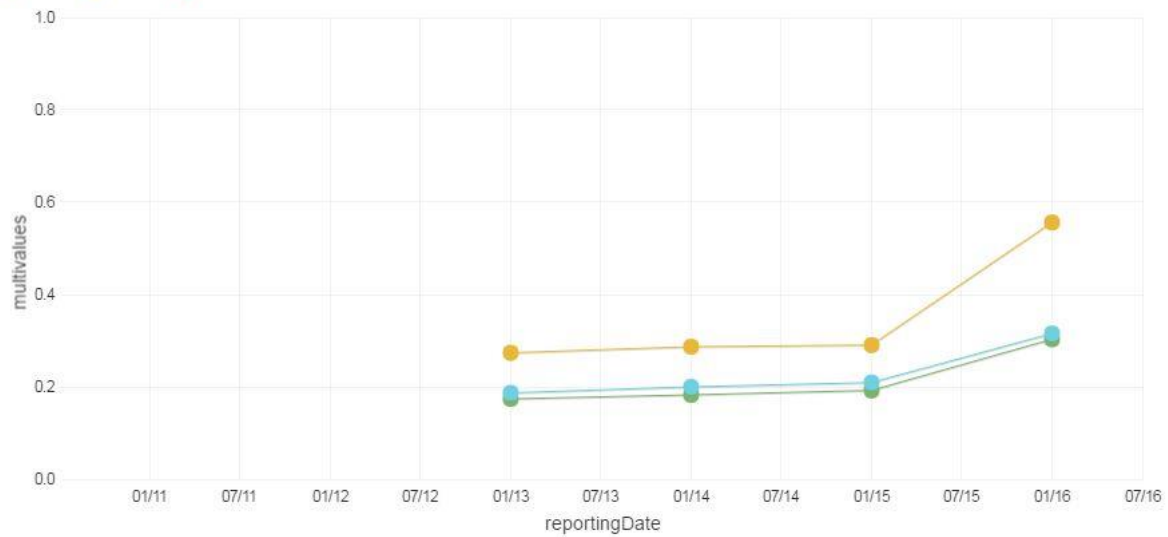
NSi2 (green) = number of spatial data sets for which both a view and a download service exists / number of spatial data sets for all Annexes

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 (4) ● nsi21 (4) ● nsi22 (4) indicatorValue multivalues per 1y | (12 Hits) | Time correction: browser



### c. Evolution of the conformity of the digital services

NSv4 (green): number of all conformant network services

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

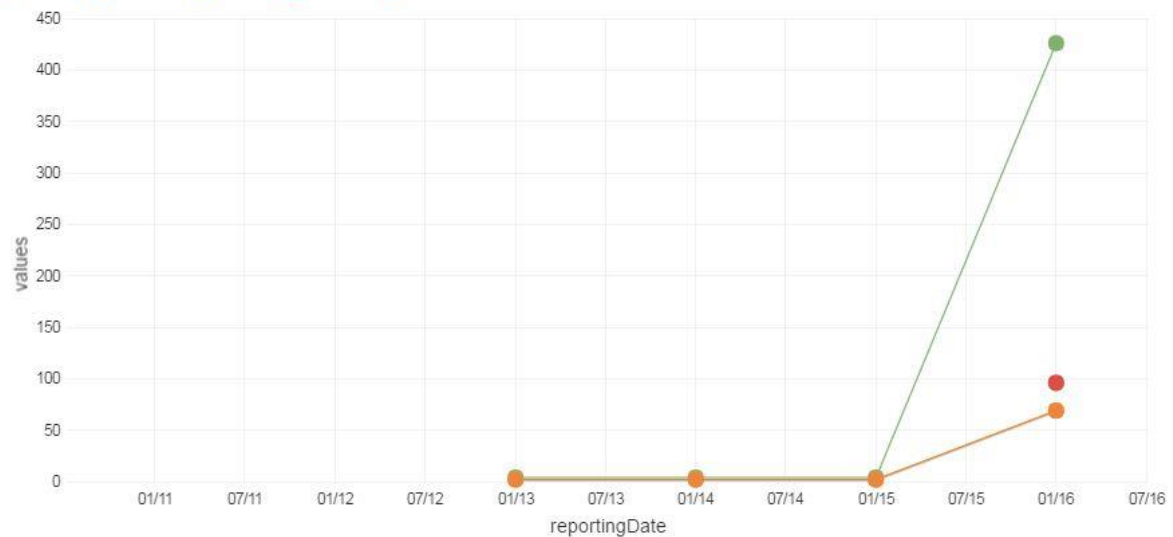
NSv4.2 (yellow): number of conformant view network services

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

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

NUMBER OF ALL CONFORMANT NETWORK SERVICES: DISCOVERY (NSV41), VIEW (NSV42), DOWNLOAD (NSV43), TRANSFORMATION (NSV44) TOTAL (NSV4)

● nsv4 (4) ● nsv41 (4) ● nsv42 (4) ● nsv43 (4) ● nsv44 (4) indicatorValue values per 1y | (20 Hits) | Time correction: browser



### Evaluation of progress for step 3:

The Cyprus has:

- 55,63% of its data sets accessible for viewing through a view service;
- 31,56% of its data sets accessible for download through a download service.

**61% (426 out of 701) of the available digital services are conform to the INSPIRE network service specifications.**

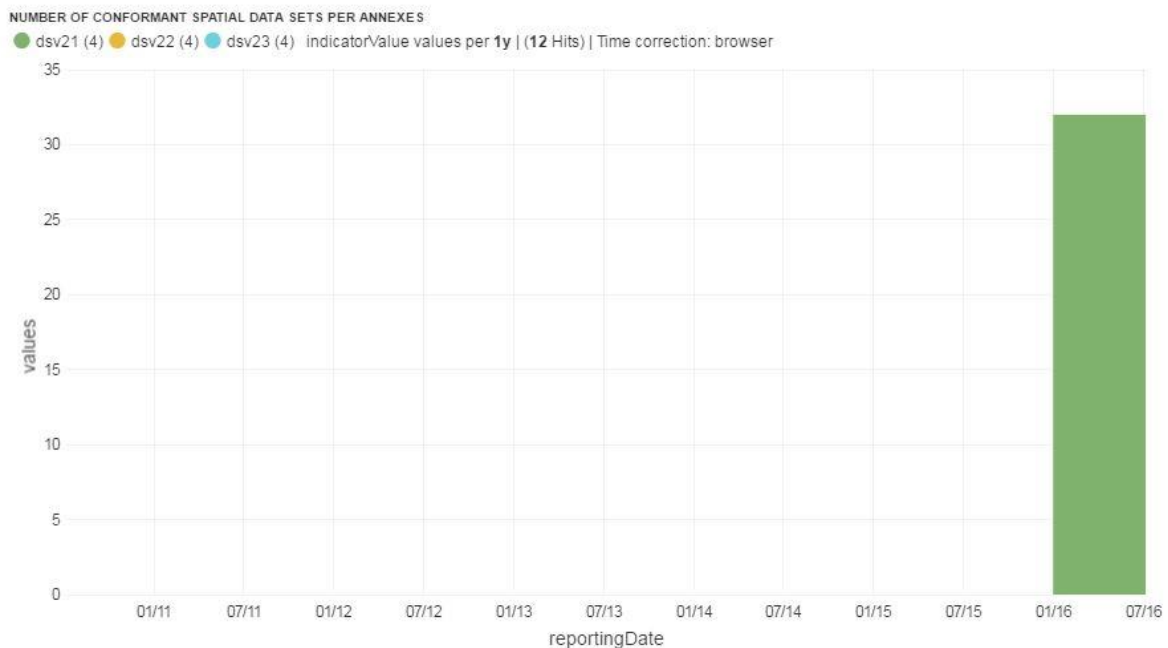
The Cyprus shows that it has built the necessary capacity and competences to make data accessible through digital INSPIRE network services. However, significant amount of the spatial data still has to be brought online. The technical conformity of the available services with the INSPIRE network service specifications 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 (green): number of conformant spatial data sets with conformant metadata for Annex I  
DSv2.2 (yellow): 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



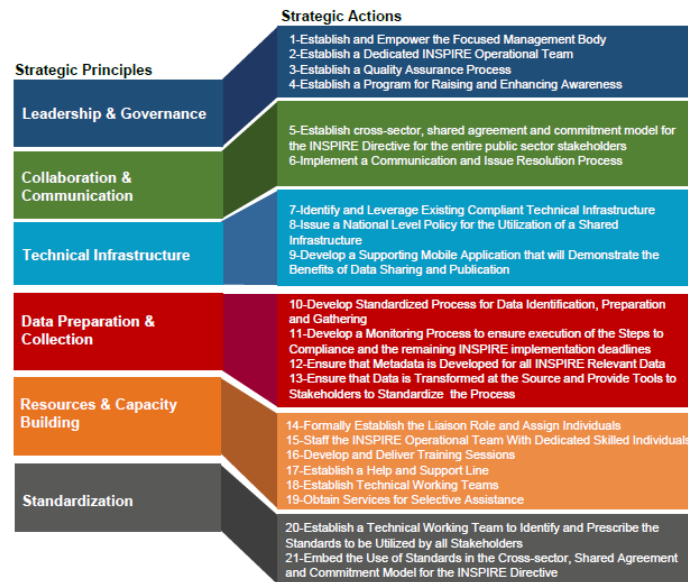
#### **Evaluation of progress for step 4:**

**Cyprus reported 32 data sets to be conform to the INSPIRE interoperability specifications.**

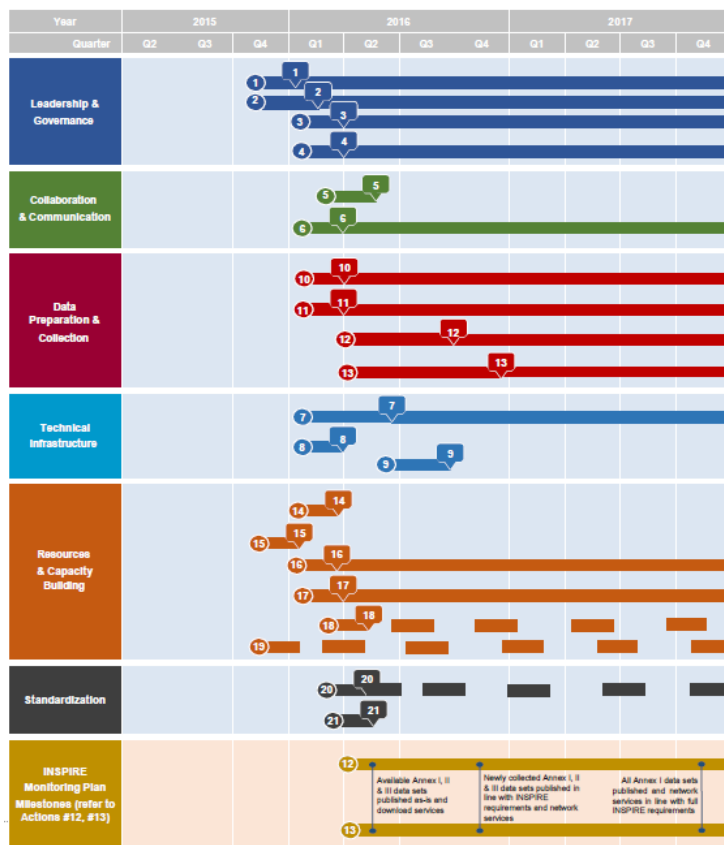
We can conclude that the Cyprus already started its preparations for the 2017/2020 data interoperability deadlines.

### 3. Outlook

Cyprus has critically reviewed their INSPIRE implementation in 2015 and developed a [strategic plan](#) to remediate identified implementation issues and further improve the overall conformity of the implementation. The following actions are set up to directly address previously identified issues:



With the following roadmap:



The strategic actions set the basis for an implementation roadmap to full compliance, taking into account the capabilities in place, the necessary roles and responsibilities, resources and funding, and possible risks.

#### 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.

Cyprus 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 partially available and implemented. During the last year, emphasis has been placed on opening up public data, through the recent adoption of Directive 2003/98/EC on the re-use of public sector information. For this purpose, the Cyprus government has launched the open data website [www.data.gov.cy](http://www.data.gov.cy), where most data published under the INSPIRE Directive are publicly available and free of charge. Through this platform public authorities publish information and data they possess or have generated in all fields, including statistics, maps, geoscientific data and meteorological information. Sections on Environment, Agriculture/ Livestock/ Fisheries as well as on Geospatial data have been created and efforts are now concentrated on data quality control and on increasing data availability. Cyprus only mentions data-sharing licenses in use by the Department of Lands and Surveys.

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