



Status of implementation of the INSPIRE Directive – 2016 Country Fiches

COUNTRY FICHE Greece

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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 Greece 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 Greece representatives.)

1. State of Play

A high-level view on the governance, use and impact of the INSPIRE Directive in Greece. 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

| | |
|--------------------------|---|
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| Telephone number | (+30) 2131515273, (+30) 2131515275 |
| Fax number | (+30) 2106437326, (+30) 2106447608 |
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| Contact person | Aliki Fatourou Eleni Grigoriou Evienia Grigoriou Office of the Minister for Environment and Energy Office of the secretary-general for spatial planning and urban environment (Min. Environment & Energy) |
| Telephone number | (+30) 2131515273 (+30) 2131515273 (+30) 2131515275 (+30) 2106969868 (+30) 2106475169 |
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- Coordination Structure
 - In accordance with Article 18 of Law N.3882/2010, as amended by Article 1 of Law 4164/2013, the public authority responsible for the implementation of the INSPIRE Directive, is the Ministry

of the Environment and Energy. The Ministry has a responsibility to monitor the development and operation of the National Spatial Data Infrastructure (NSDI) and report on the implementation progress. It provides the National Contact Point on the implementation of INSPIRE and participates with a representative in the INSPIRE Committee and other expert groups.

- Policymaking for the production and management of spatial information, in terms of technological, administrative and legal interoperability, is undertaken by the National Committee for Geo-Information (NCG) and supervised by the Ministry of the Environment and Energy.
- In accordance with Presidential Decree 28/2015, the National Cadastre and Mapping Agency Company (NCMA S.A.) hosts the NSDI and has the responsibility to coordinate and provide all the necessary technological tools and information needed by the data producers to participate in the NSDI allowing to create and animate the network of services, discovery, view, download, transformation and invoke, through the National Geospatial Information Portal.
- Progress
 - Despite the transposition of the INSPIRE Directive, the planning and implementation of the NSDI has not made satisfactory progress, neither technical nor in organisational aspects. The coordination structure has failed and needed to be changed.
 - Institutional and organisational reforms in the period 2013-2015 have assigned the NSDI responsibilities to the Ministry of Environment and Energy. The executive, infrastructure and service responsibilities have been assigned to the National Cadastre and Mapping Agency S.A. (NCMA).
 - Considering that valuable time has been lost and that ambitious plans of the past have not been implemented, the enactment of legal and administrative measures for the sharing of spatial data and services among public authorities are considered of critical priority. A new long-term vision will be developed with a realistic work plan that will focus on step-wise and concrete results in very short time.

1.2 Functioning and coordination of the infrastructure

- Little has changed since the 2013 reporting cycle. The vision, policy and strategy for the NSDI remains as described in the 2013 INSPIRE Implementation report.
- The services developed in the past are maintained by NCMA S.A., but have not been updated.
- According to the action plan, which was discussed at the meeting of 8 December 2015 with representatives of the European Commission, a new geoportal will be created. Priority will be given to datasets that concern other EU Directives. The Ministry of Environment and Energy will use the INSPIRE-ready infrastructure provided by the National Cadaster & Mapping Agency S.A. to implement the goals set by the INSPIRE Directive within a 12 month period.
- The Greek NSDI is connected to the EC Geoportal. Greece provides a discovery endpoint for metadata discovery at <http://www1.okxe.gr/geonetwork/srv/en/main.home>.

1.3 Usage of the infrastructure for spatial information

- Due to the lack of an appropriate monitoring system no measurements are available on the use of geospatial data sets and services.
- There have been no data exchanges or collaborations on spatial information with other EU Member States.

1.4 Data Sharing Arrangements

- Over the period 2013-2015, there has been no change in the sharing of data between public authorities and the EU institutions. It continues to be governed by the provisions of Article 27 of Law 3882/2010, relating to the sharing of geospatial data and services between public authorities. It applies in the same way to public authorities in other Member States of the EU, to EU institutions and bodies, and to bodies established by international agreements, to which the EU and Member States are members; solely for task under their remit, which may have an impact on the environment.
- A set of geospatial data are available from NCMA S.A. with no restrictions other than the obligation to mention the original data provider. These are also available to third parties free of charge, with the appropriate open licences for non-commercial purposes.

- Many of the barriers to data sharing mentioned in the previous report (2010 – 2012) still persist, mainly because of the lack of a National Geo-data Policy and the non-compliance of public authorities with law 3882/2010 that regulates data sharing.

1.5 Costs and Benefits

- Neither quantitative nor qualitative cost/benefit measurements were provided for the period 2013-2015.

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.

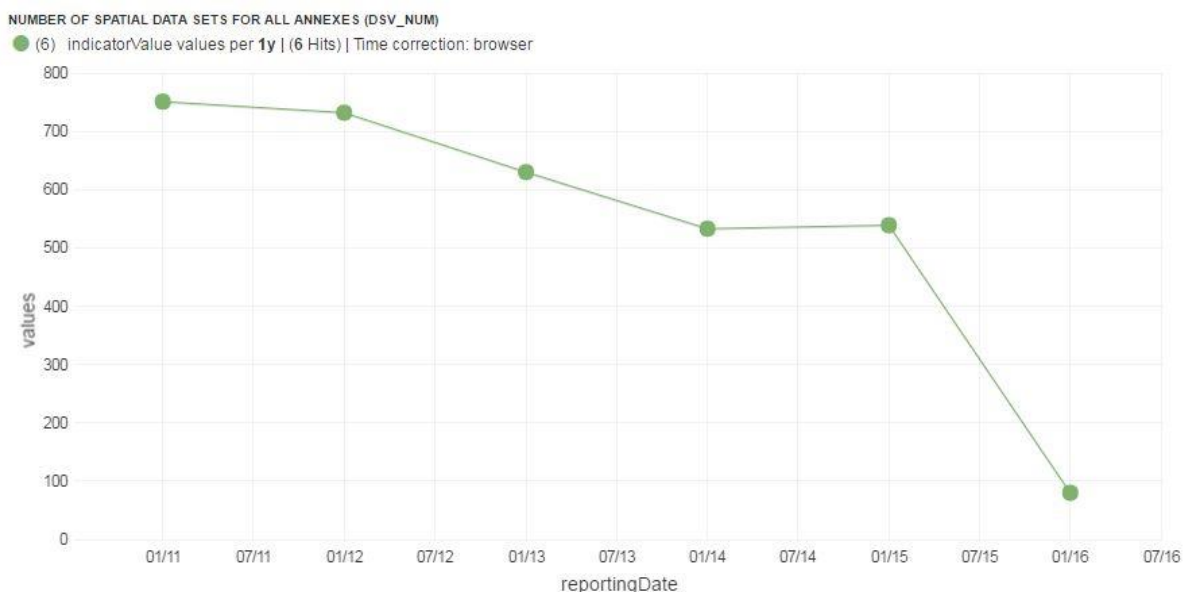
The key facts and figures presented in this country fiche are based on the information provided by Greece on the [INSPIRE dashboard](#). **The provided statistics is not reflecting the data available on [INSPIRE geoportal](#).** The INSPIRE geoportal is updated on a regular and ongoing basis, whilst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

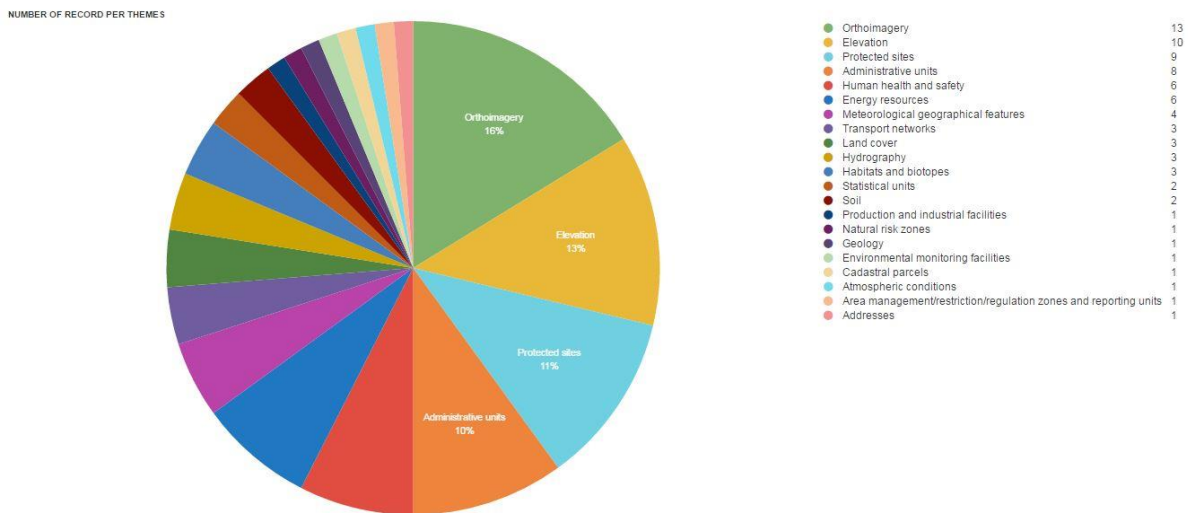
2.1. Identification of spatial data with relevance to the environment (step 1)

a. Evolution of the data offering

DSv_Num: number of spatial data sets for all Annexes

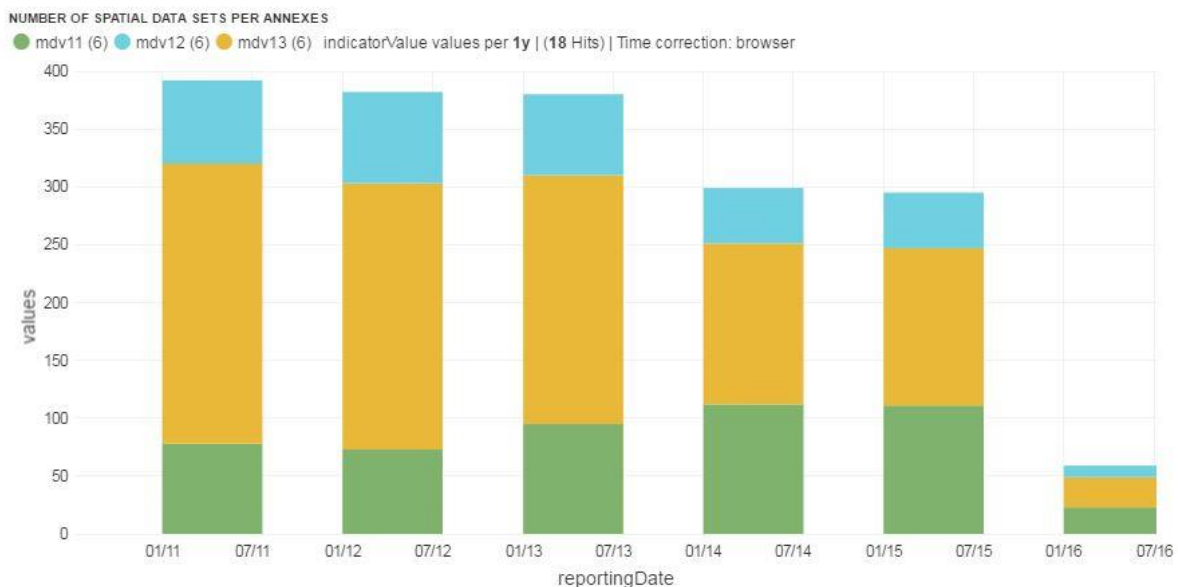


b. Data sets made available per INSPIRE theme in 2015



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 (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:

Greece has identified a total of 80 spatial data sets with relation to the themes listed in the INSPIRE annexes.

The number of identified spatial data sets is much less than the previous years (e.g. 539 in 2015). Many relevant spatial data sets have been identified for the different data themes. However, the identification still seems incomplete and Greece 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)

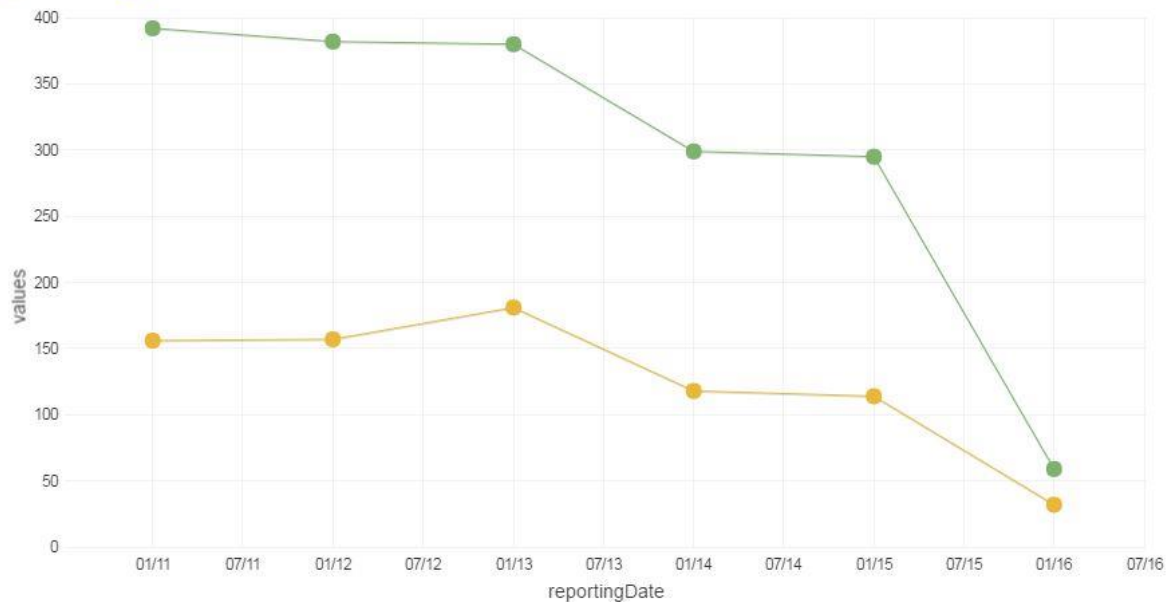
a. Evolution of documented data and conformity of the documentation

MDv1_DS (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

NUMBER OF SPATIAL DATA SET THAT HAVE METADATA (MDV1_DS) AND HAVE CONFORMANT METADATA (MDV2_DS)

● mdv1_ds (6) ● mdv2_ds (6) indicatorValue values per 1y | (12 Hits) | Time correction: browser



b. Documented data per annex in 2015

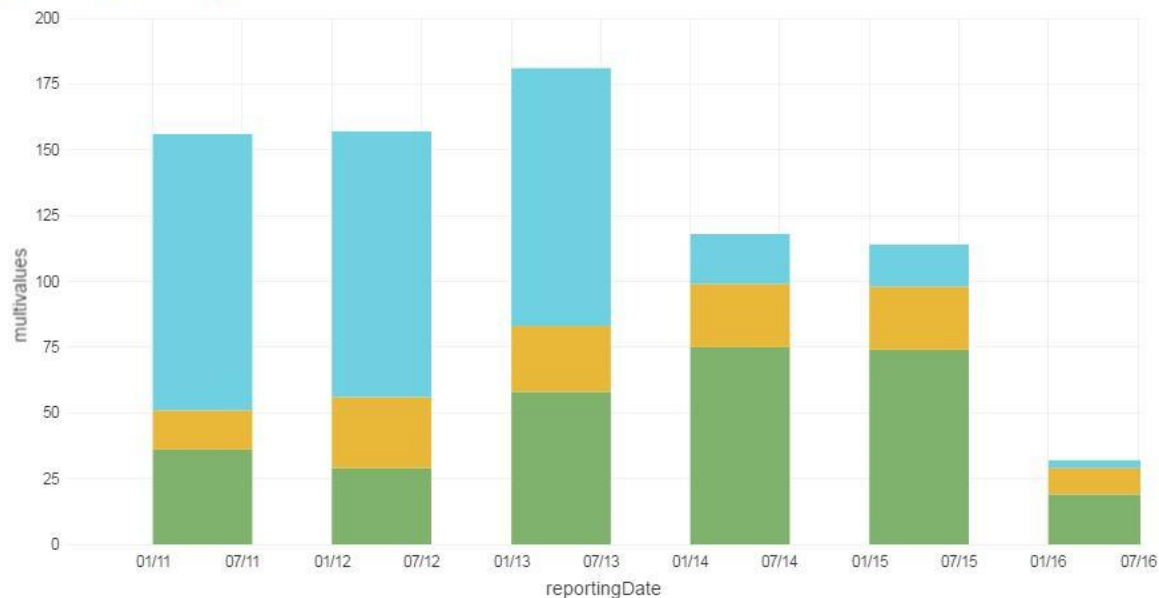
MDv2.1 (green): number of spatial data sets for Annex I that have conformant metadata

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

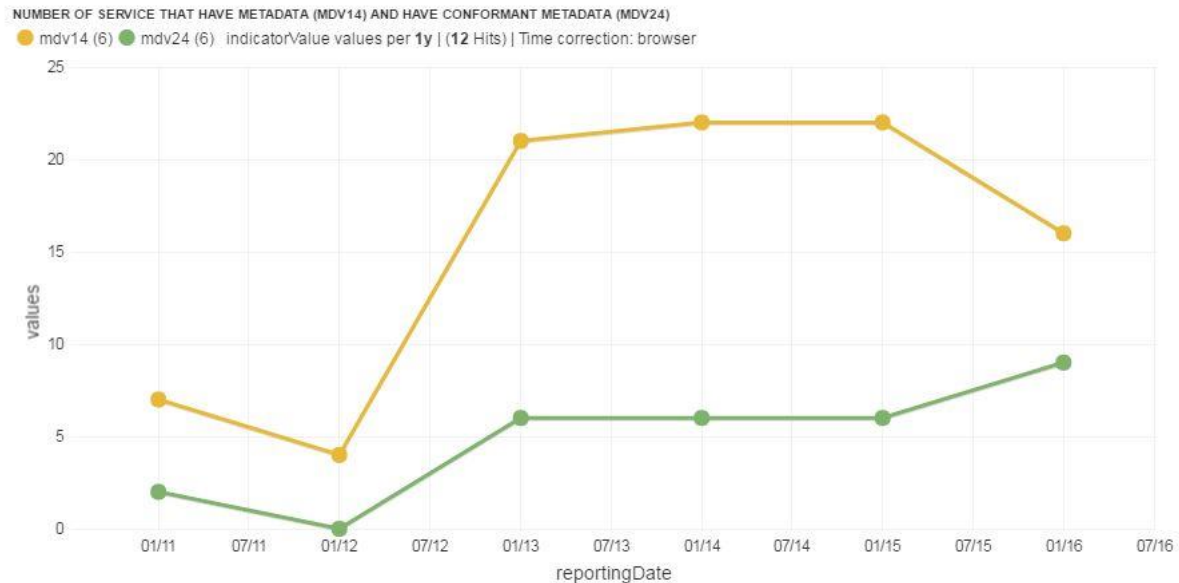
● mdv21 (6) ● mdv22 (6) ● mdv23 (6) indicatorValue multivalues per 1y | (18 Hits) | Time correction: browser



c. Evolution of documented services and conformity of the documentation

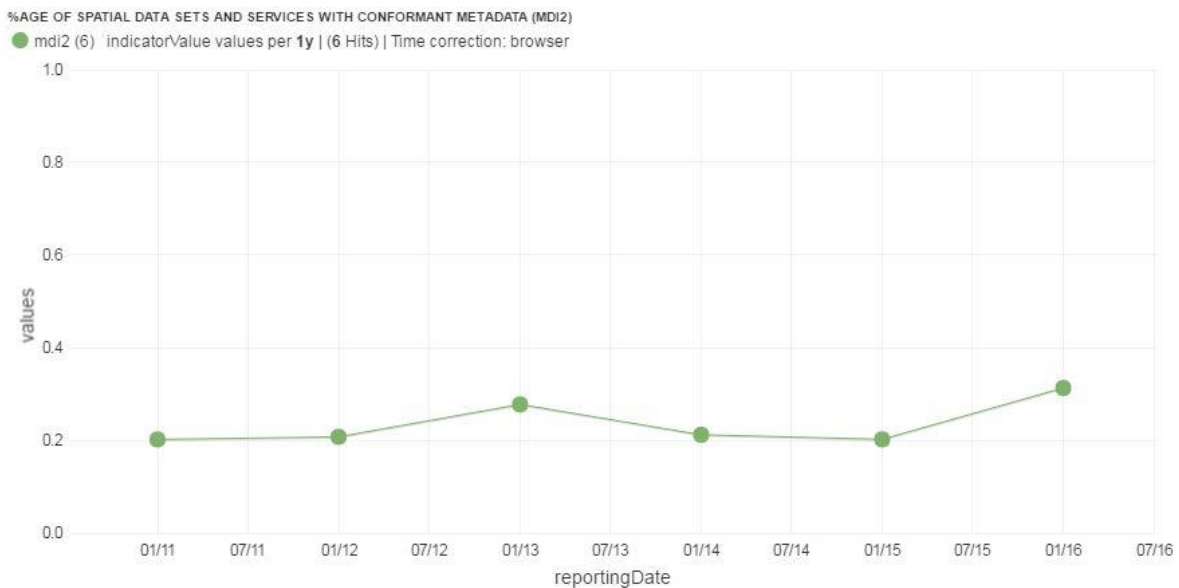
MDv1.4 (yellow): number of spatial data services that have metadata

MDv2.4 (green): 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:

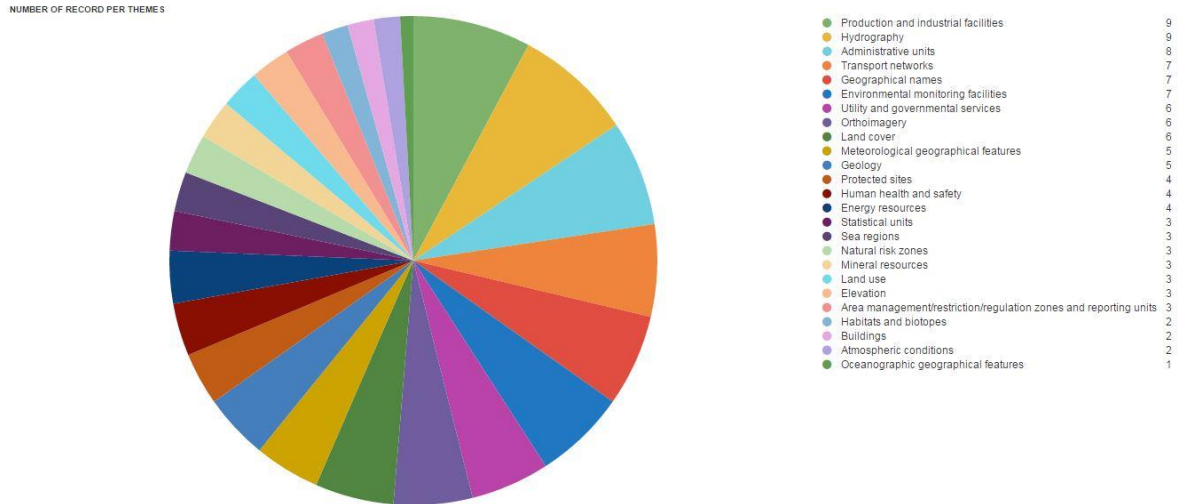
Greece has documented and published metadata through a digital discovery service for 73,75% (59 out of 80) of the identified spatial data sets and 31,37% (16 out of 51) of the digital services. Overall, 31,30% of the metadata conforms to the INSPIRE metadata specifications.

Metadata documentation of available spatial data sets and services is still poor as well as overall conformity. Greece should boost the effort in creation of 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.



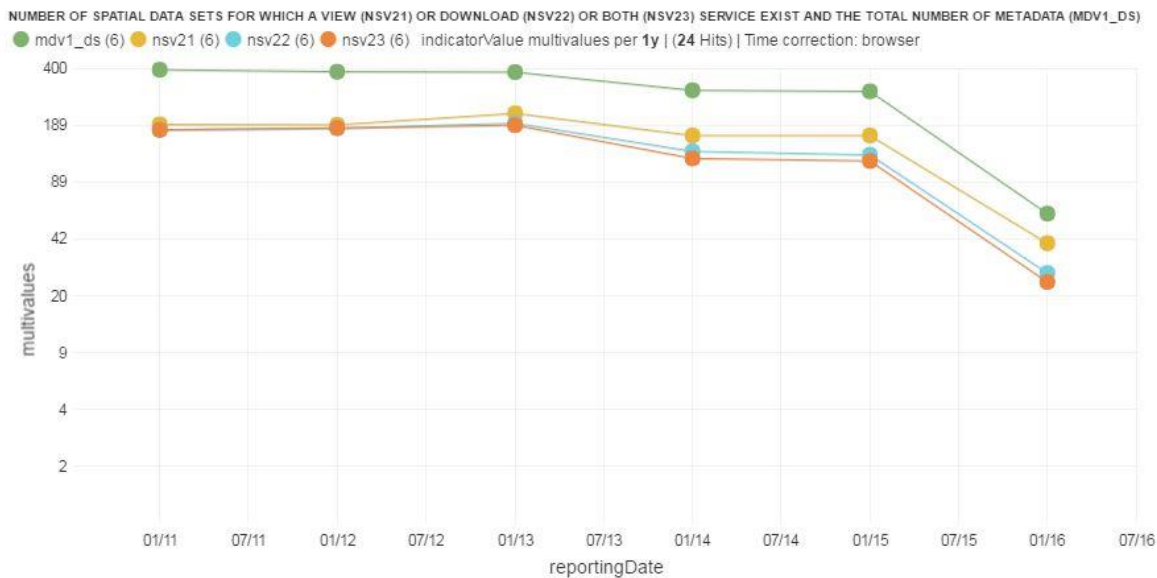
b. Evolution of spatial data made accessible through digital services

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



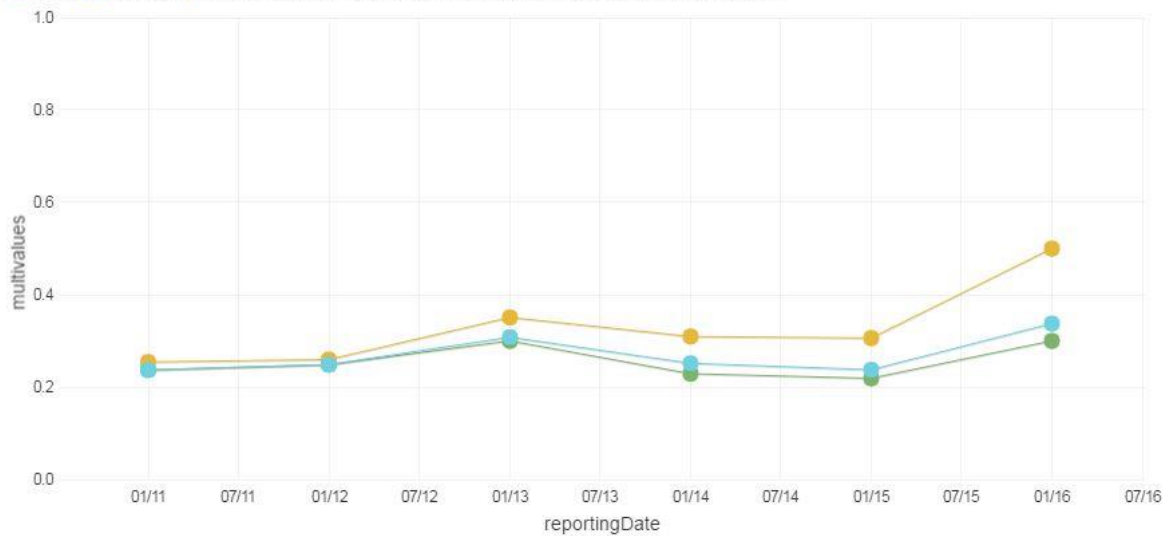
NSi2 (green) = number of spatial data sets for which both a view and a download service exists / number of spatial data sets for all Annexes

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) indicator/Value multivalues per 1y | (18 Hits) | Time correction: browser



c. Evolution of the conformity of the digital services

NSv4 (red): number of all conformant network services

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

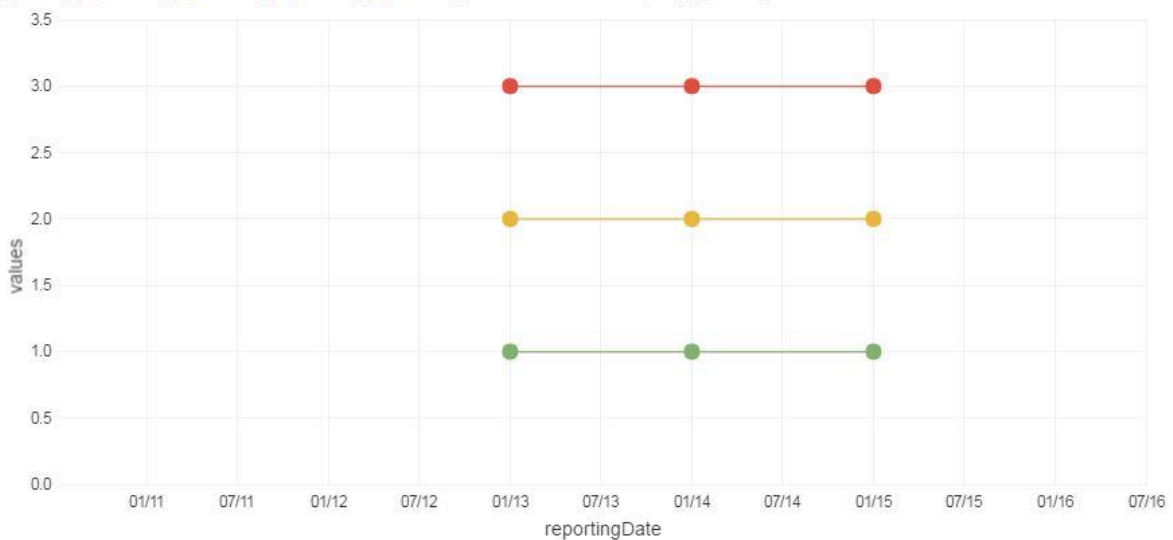
NSv4.2 (yellow): number of conformant view network services

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

NSv4.4 (orange): 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) indicator/Value values per 1y | (30 Hits) | Time correction: browser



Evaluation of progress for step 3:

The Greece has:

- 50% of its data sets accessible for viewing through a view service;
- 33,75% of its data sets accessible for download through a download service.

0,06% (3 out of 51) of the available digital services are conform to the INSPIRE network service specifications.

The Greece shows that it has not yet built necessary capacity and competences to make data accessible through digital INSPIRE network services. Many of identified data sets are still not available. The technical conformity of the available services with the INSPIRE network service specifications is very poor.

2.4. Interoperability of spatial data sets (step 4)

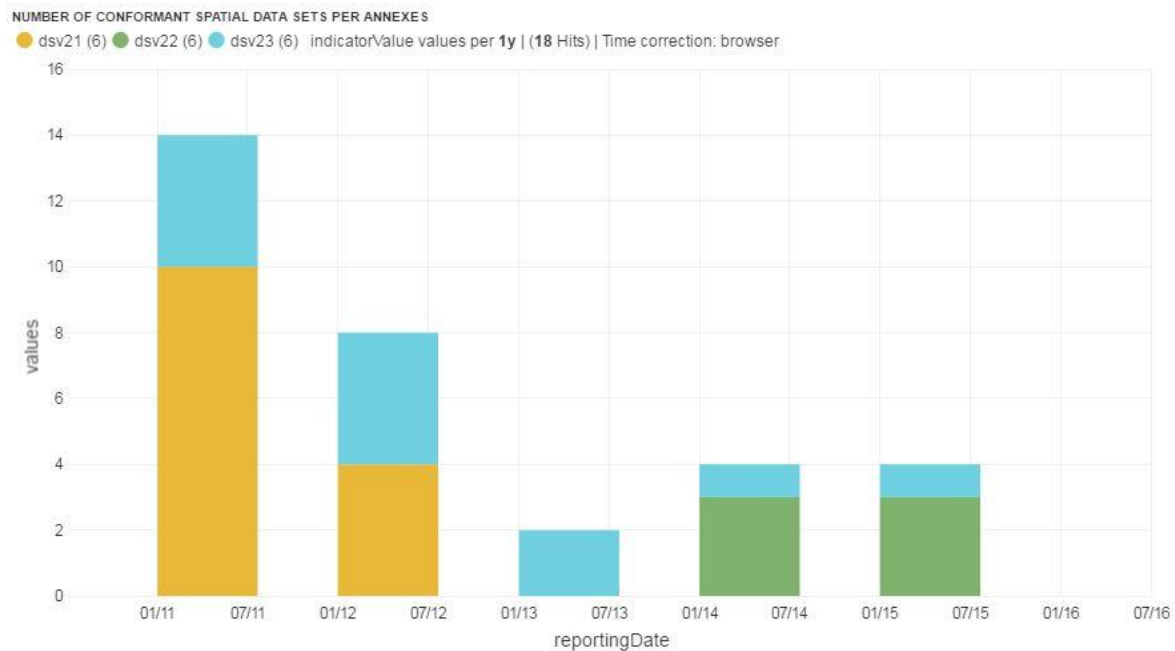
The interoperability of spatial data sets is an outlook on the readiness of Member States to make their spatial data interoperable according to the interoperability specifications laid down in the INSPIRE interoperability implementing regulation ([Commission Regulation \(EU\) No 1089/2010](#)). The deadlines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



Evaluation of progress for step 4:

Greece reported 4 data sets to be conform to the INSPIRE interoperability specifications in 2015.

We can conclude that the Greece has not started its preparations for the 2017/2020 data interoperability deadlines. This should be one of the priorities in the coming months.

3. Outlook

Greece 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)

- The organizational structure to publish online datasets needs to be reconstituted and enacted through the respective formal procedures in order to contribute to the gradual implementation of the legal, administrative and technical requirements of the Directive throughout the public sector at all levels of government.
- In this context and within the current legal framework, the list of datasets has been revised to comply with the order priorities and common practice in the EU and to contain only items that can be implemented within a 12-month period.
- Implementation will be based on a 'Geospatial Task Force, which is subordinate to the Minister, that can initiate specific tasks to accelerate the gathering of the datasets and to bring them online.

b. Data sharing and exchange (1.4)

- Together with the World Bank Greece defined a Technical Assistance project to cover several aspects of the current organizational inefficiencies. Among the topics requested by the Greek side to the World Bank are the following:
 - Establishment of practices for interoperability and value-added services based on the national geospatial data infrastructure, aiming among others to ensure both viability and quality of this infrastructure.
 - Optimization of workflows and processes for spatial data across the public sector, by eliminating current obstacles.

c. Metadata (2.2)

- The current INSPIRE-compliant services developed by NCMA will provide the tools to make all the metadata of the newly selected datasets compliant within the 12-month period.
- In parallel, the Ministry of Environment and Energy with assistance from the NCMA will work towards the development of the final technical infrastructure to host the Greek INSPIRE services.

d. Network services (2.3)

- The current INSPIRE-compliant services developed by NCMA will provide the basis to make all the discovery, view and download services for the newly selected datasets compliant within the 12-month period.
- In parallel, the Ministry of Environment and Energy with assistance from the NCMA will work towards the development of the final technical infrastructure to host the Greek INSPIRE services.

e. Data Interoperability (2.4)

- The list of datasets has been revised. It now only contains datasets can be discovered and published within a 12-month period.
- Implementation will be based on a 'Geospatial Task Force, which is subordinate to the Minister, assigned to express "missions" to accelerate the gathering of the datasets and to bring them online.
- NCMA will handle all the technical aspects of publishing these datasets to the Greek and EU INSPIRE portals. NCMA has recently created an INSPIRE- compatible infrastructure, which

will be offered to the Ministry of Environment and Energy to accelerate the business of the “express missions”.

- The priorities will be based on the best use of our capacity to produce the first results in a period of time as short as 12 months. Also, all the upcoming reporting requirements will be prioritised and honored.

4. Summary - How is Country doing?

| INSPIRE key obligation | Overall implementation status and trend | Outlook | <p style="text-align: center;"><u>Dashboard Legend</u></p> <p>Implementation Status:</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>Trend:</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>Outlook:</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.

Greece 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 fully implemented. Although it is mandated by Greek law that spatial data have to be exchanged free of charge between public authorities, the implementation of this legislation within Greek administration is in many cases problematic. Of 600 spatial data sets that have been identified by Greece, only 30 have been made available for publication.

Assessments of monitoring reports issued by Greece and the spatial information that Greece 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 (Annex III of the INSPIRE Directive), which may be due to lacking or insufficient coordination in Greece between INSPIRE stakeholders.

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.