Status of implementation of the INSPIRE Directive – 2016 Country Fiches

COUNTRY FICHE Latvia

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 Latvia 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 LV representatives.

1. State of Play

A high-level view on the governance, use and impact of the INSPIRE Directive in Latvia. 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	Latvian Geospatial Information Agency
Mailing address	Ojāra Vācieša Street 43, Riga, LV-1004
Telephone number	+371 - 29481235
Fax number	+371 - 29370505
E-mail	info@lgia.gov.lv
Website address	www.lgia.gov.lv
Contact person	Mr. Valdis Bērzins
Telephone number	+371 29481235
E-mail	valdis.berzins@lgia.gov.lv
Contact person substitute	
Telephone number	
E-mail	

- Coordination Structure

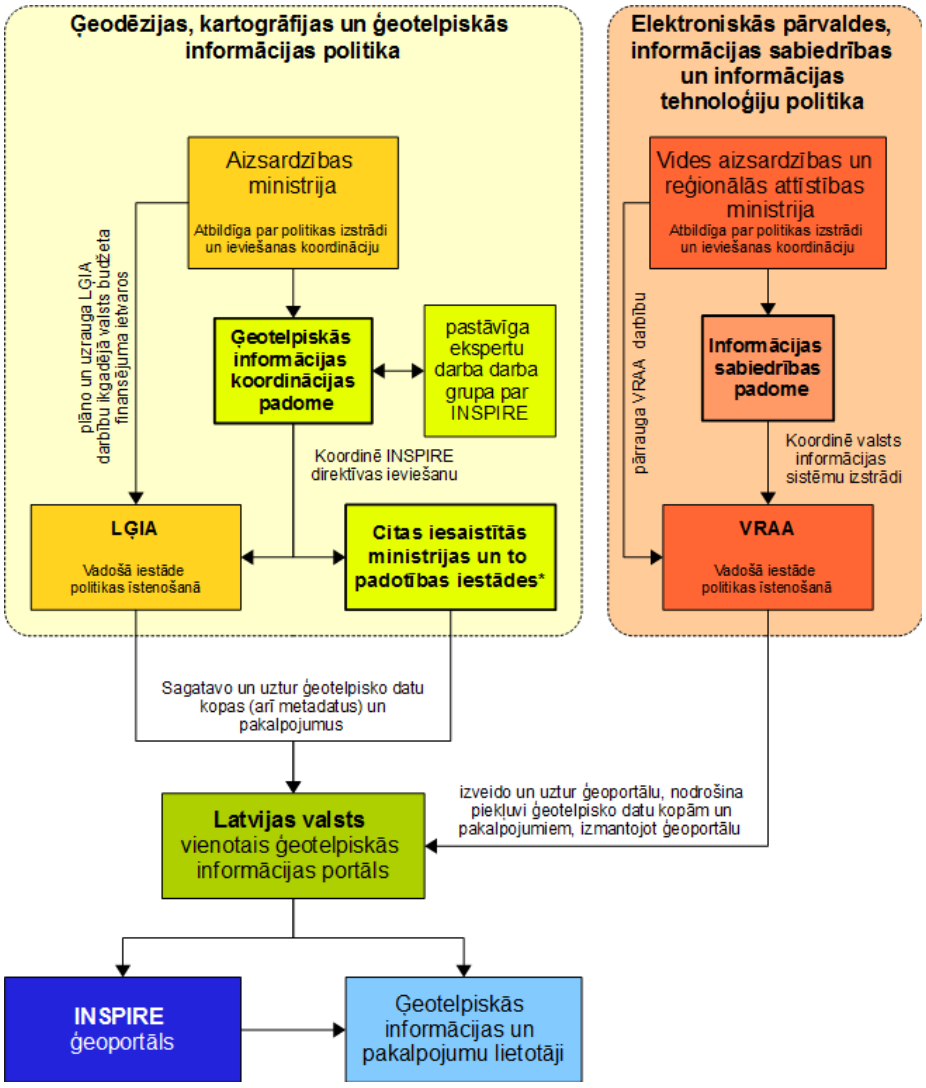


Fig. translation
LATVIAN / ENGLISH
Ģeodēzijas, kartogrāfijas un ģeotelpiskās informācijas politika / Geodetic, mapping and geospatial information policy
Aizsardzības ministrija. Atbildīga par politikas izstrādi / Ministry of Defence. Responsible for policy development
un ieviešanas koordināciju / and for coordination of its implementation
Ģeotelpiskās informācijas koordinācijas padome / Geospatial Information Coordination Board
Pastāvīga ekspertu darba grupa par INSPIRE / Permanent expert working group for INSPIRE
Koordinē ģeotelpiskās informācijas nodrošināšanu, t.sk. INSPIRE direktīvas ieviešanu / Coordinates the provision of geospatial information incl. implementation of the INSPIRE Directive
Citas iesaistītās ministrijas un to padotības iestādes* / Other ministries and their subordinate bodies that are involved*
LĢIA. Vadošā iestāde politikas īstenošanā / LGIA. Leading authority for policy implementation
Plāno un uzrauga LĢIA darbību ikgadējā valsts budžeta finansējuma ietvaros / Plans and monitors the activities of the LGIA within the framework of annual budget
Sagatavo un uztur ģeotelpisko datu kopas (arī metadatus) un pakalpojumus / Produces and maintains geospatial data sets (also metadata) and services

Risina praktiskus jautājumus (piekļuve izveidotajiem datiem un pakalpojumiem, vienošanās ar ģeoportāla pārzini, utml.) / deals with practical issues (access to data and established services, agreement with the manager of the geo-portal, etc.)
Ģeoportāla konsultatīvā padome ** / Geo-portal Consultative Board **
Latvijas valsts vienotais ģeotelpiskās informācijas portals / The State uniform geospatial information portal of Latvia
INSPIRE ģeoportāls / INSPIRE geo-portal
Ģeotelpiskās informācijas un pakalpojumu lietotāji / Users of geospatial information and services
Elektroniskās pārvaldes, informācijas sabiedrības un informācijas tehnoloģiju politika / Electronic government, information society and information technology policy
Vides aizsardzības un reģionālās attīstības ministrija. Atbildīga par politikas izstrādi un ieviešanas koordināciju / Ministry of Environmental Protection and Regional Development. Responsible for policy development and for coordination of its implementation
Pārrauga VRAA darbību / Monitors the activities of the SRDA
Informācijas sabiedrības padome / Information Society Board
Koordinē valsts informācijas sistēmas izstrādi / Coordinates the creation of the state information system
VRAA. Vadošā iestāde politikas īstenošanā / SRDA. Managing Authority for policy implementation
Izveido un uztur ģeoportālu, nodrošina piekļuvi ģeotelpisko datu kopām un pakalpojumiem, izmantojot ģeoportālu / Creates and maintains the geo-portal, ensures access to geospatial data sets and services by using the geo-portal

- The Law on Geospatial Information provides that associations and foundations (such as the Latvian Association of Surveyors and the Latvian Association of Cartographers and Geodesists), which bring together natural and legal persons working in the field of geospatial information, may participate in the implementation of state policy in the field of geospatial information, by undertaking discussions concerning regulatory documents and standards, providing opinions, and fostering public involvement in the circulation of geospatial information and improving professional qualifications.
- In addition to the Ministry of Defence nine other ministries are involved, namely the Ministry of Environmental Protection and Regional Development, the Ministry of Justice, the Ministry of Agriculture, the Ministry of Transport, the Ministry of the Interior, the Ministry of Education and Science, the Ministry of Economics, the Ministry of Health and the Ministry of Culture. Each ministry is the designated ministry responsible or jointly responsible for creating and updating the geospatial data sets and their metadata in respect of the data themes referred to in the Annexes to the INSPIRE Directive.
- The Latvian Geospatial Information Agency (LGIA) is the leading authority for state policy implementation in the area of geodetic, mapping and geospatial information. The LGIA is subordinate to the Ministry of Defence and its activities are monitored by the Ministry of Defence.

- Progress
  - Limited financial and human resources are still a major problem for the production and quality assurance of geospatial data. In order to address this challenge, data quality is improved gradually. On 28 December 2013, the Latvian Geospatial Information development strategy was approved that provides the coordination mechanism for a sustainable development of the geospatial infrastructure by providing training, feasible planning, adequate financial resources and qualified professionals.
  - INSPIRE master classes are organised by LĢIA every month in 2016 to build the necessary capacity and competencies within the bodies involved in the processing of geospatial information and publication of geospatial data sets and metadata.
  - LĢIA was granted additional funds allowing them to make sure reference data is created and made available through web services for other administrations.
  - Latvian data providers keep working on the development of their information systems in order to ensure the availability of electronic geo-spatial data sets to end users. Public availabilty of data creates a feedback loop between the data provider and the society, which continuously improves data quality **[Coherence]**.
  - The main achievements of this reporting period (2013-2015) **[Effectiveness]**:
    - country-wide launch of the geospatial information geoportal;
    - many data providers developed their spatial data infrastructire, supporting INSPIRE data and services;
    - the Coordinating Council for Geospatial Information was set up;

- more active cooperation between the bodies responsible for the implementation of the INSPIRE Directive was initiated;
- in 2015 the metadata of data sets and services was significantly improved.

1.2 Functioning and coordination of the infrastructure

- The Latvian geospatial information development concept was approved under Cabinet Order No 718 of 20 November 2007 and provides for the creation of an infrastructure for geospatial information (IGI) in Latvia.
- The unique national geospatial information portal became operational in December 2014 and the project was completed on 30 June 2015. The geoportal has improved the availability and accessibility of geospatial information. Technical problems due to the low level of interoperability still remain (e.g. mismatches between topographic maps and cadastral data) and some data providers have not documented all necessary metadata. Further investments are needed. The geoportal allows data providers that do not have their own data dissemination system to publish their data and gives Latvian citizens the opportunity to participate electronically to spatial planning.public consultations.
- The State Administration Structure Law provides that state and local authority bodies may cooperate both on a one-off or permanent basis by concluding an interdepartmental agreement or a cooperation agreement. This model of cooperation is also used to provide permanent cooperation for sharing geospatial information in compliance with the Law on Geospatial Information, which provides that users of geospatial data sets should conclude a cooperation agreement with the holder of the relevant geospatial data set in order to share data sets **[Coherence]**.
- Currently metadata on major Latvian geospatial data sets and services are stored and maintained in two metadata catalogues — Latvia's geo-portal metadata catalogue and LGIA's metadata catalogue.

1.3 Usage of the infrastructure for spatial information

- Geospatial data sets are used for a wide range of purposes by national and local institutions to fulfil their role and responsibilities. Many geospatial data providers have published their data and derived services on the geoportal (https://geolatvija.lv/geo/search) to facilitate the accessibility of data **[Effectiveness]**.
- A number of national and local geospatial data services have been developed, some of them are under development or development stage. In order to ensure the availability of information in an electronic environment, various geo-information browsers and applications are made available by different administrations and used by local authorities, emergency services, insurance companies etc. e.g. State Land Service e-services (mapping, real estate information based on the cadaster …) available on the website (https://www.kadastrs.lv), LĢIA topographic maps and ortho images (http://map.lgia.gov.lv/, https://kartes.lgia.gov.lv/), the rural register on agricultural land (https://karte.lad.gov.lv/) for the application and the payment of subsidies for farmers (https://eps.lad.gov.lv/login), e-Health integrated information systems (https://www.eveseliba.gov.lv/) providing geospatial data, the national register of protected cultural monuments (http://mantojums.lv/lv/piemineklu-saraksts/), LHEI data used for the preparation of management plans for marine protected areas, maritime spatial planning (http://www.varam.gov.lv/lat/darbibas_veidi/tap/lv/?doc=23102). LEGMC, RPMA (Real Properties of Ministry of Agriculture - https://www.melioracija.lv/) and LGIA data are used for updating of the River Basin Management Plans
- The interest of the general public in public available geospatial information services is growing by the year e.g. the LĢIA Map application (http://kartes.lgia.gov.lv/) had 131 345 visits in 2012, while in 2015 there were already 208 306 visits (i.e. 1,6 times more) and in 2016 there were already 249 967 visits. The State Land Service points out that from 2015 onwards, when cadastral data became publicly accessible via the portal "kadastrs.lv", the average monthly number of portal users has increased by 333 % **[Relevance]**
- The low access level to the services of INSPIRE datasets can be explained by the fact, that many institutions are providing these data sets and services as paid (secured) OGC services. Discussions proposed by the Latvian Government on the opening of the reference spatial data have been started.

1.4 Data Sharing Arrangements

- In accordance with the Law on Geospatial Information holders of geospatial data sets must provide public access to information based on the regulations concerning the sharing and re-use of the geospatial data sets. The mandatory requirements for using geospatial data sets are laid down in Cabinet Regulation No 673 of 30 August 2011 “Mandatory content of the rules for using geospatial data sets, and procedures for receiving a permit for use”, which specifies uniform model rules of use and model permit forms, in order to simplify and expedite the receipt and utilisation of permits for use of geospatial data sets. These rules are applied on equal terms for both sharing and re-using geospatial data sets. Users of geospatial data sets and services are obliged to submit an application for a permit for use of geospatial data sets and services in a timely manner.
- The Law on Geospatial Information provides that an infrastructure for geospatial information is created for sharing geospatial information between authorities and re-using geospatial information in electronic format.
- A national common geo-portal has been developed in Latvia to provide users with access to the geospatial data sets and metadata included in the aforesaid infrastructure for geospatial information. Community institutions and bodies can use the Latvian geo-portal (https://geolatvija.lv/geo/), the free public LĢIA Map browser (https://kartes.lgia.gov.lv/karte/?lang=en), the flood risk map information system (http://pludi.meteo.lv/floris/), the RSS field block map (https://karte.lad.gov.lv), etc. Part of these e-services geospatial data interfaces are developed in English, (e.g. the geoportal, LĢIA Map browser).
- One of the main problems which hamper improvement of geospatial data sets sharing is the lack of funding for the maintenance of the basic data and geospatial information.

1.5 Costs and Benefits

- Data providers carry the costs for implementation of the INSPIRE Directive. These costs are included in the total expenditure of these institutions. However, individual projects have been carried out to prepare data, metadata and geospatial services and develop a countrywide’s geo-portal, also supported by EU funds:
    - Latvia’s geo-portal totals EUR 3 483 131. this sum comprises ĢDS’s geo-portal and the necessary technical infrastructure, the development of software applications and the creation of a GIS integration of geospatial services, security of the system audit, as well as administrative and publication costs. Maintenance costs for the next 3 years on average are estimated to EUR 358 000 per year.
    - LĢIA ĢPIS geospatial information system (reference data) development public eligible cost was EUR 1 414 584.
    - In 2015 the National Heatlh Service initiated phase 2 of the project entitled "eHealth". The e-Health integrated information system has been developed within the framework of the Ministry of Health and will ensure compliance with the requirements of the INSPIRE Directive and integration with the Latvian geoportal. The cost of the project amounted to EUR 164 628,72 for the development of this functionality.
- One of the main benefits is the availability and accessibility of geospatial data sets in electronic form, which is a fundamental condition for increasing the use of geospatial data in the various sectors of the economy and public administration **[Efficiency]**. These electronic services:
    - allow for a more efficient management of the production of geospatial data sets and leads to higher reliability of the data by improving the data quality and reducing data duplication in the various national administrations;
    - ensures the development of IT infrastructure and the provision of various services to the general public as well as public administrations.
- The monetary benefits of the Geospatial Information Infrastructure are indirect and hard to assess. Latvian Data providers have identified concrete benefits of INSPIRE data production, for example **[Efficiency]**:
    - The Ministry of Agriculture as the institution responsible for the “Soil” data theme, points out that digital soil data will be useful for the greenhouse gas emissions in the country, thus apply for climate policy planning and implementation. The data will be used for soil protection policy planning and implementation.
    - Within the context of the Land Cover data theme, records of forests are kept. The data are useful for forest policy, ensuring sustainable forest management in Latvia. The INSPIRE data

theme "Natural risk zones" will be useful for forest fire detection and possible preventive measures to prevent forest fires.(VMD)

- The Land Use data theme can be used for invasive species and the spread of quarantine pests, for monitoring, analysis and planning of work sites. (State Plant Protection Service)
- Agricultural and aquaculture facilities data themes will be used to record data abpout the farm animals (individual and group) location and are useful and effective for the administration of animal diseases such as African swine fever control and eradication. (Agricultural data centre)
- Several institutes collect data on the quality of the water and assess the quality of bathing waters to inform citizens based on the "Environmental Monitoring Facilities" data theme. The MA points out that, thanks to the INSPIRE implementation the data will be available for everyone through the Geoportal. Users will be given access to the output measured data and be given the potential for using them for their specific needs e.g. by carrying out analysis of different data layers available through other the Geoportal. (Maritime Administration of Latvia)

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.

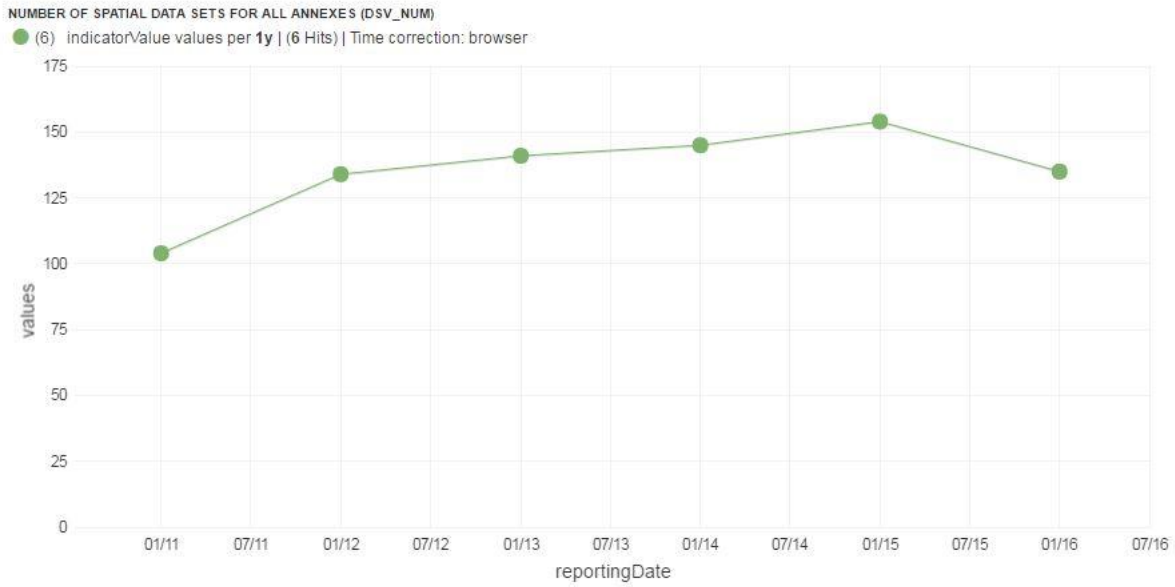
The key facts and figures presented in this country fiche are based on the information provided by Latvia on the INSPIRE dashboard. **The provided statistics is not reflecting the data available on** INSPIRE geoportal. The INSPIRE geoportal is updated on a regular and ongoing basis, whilst the INSPIRE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

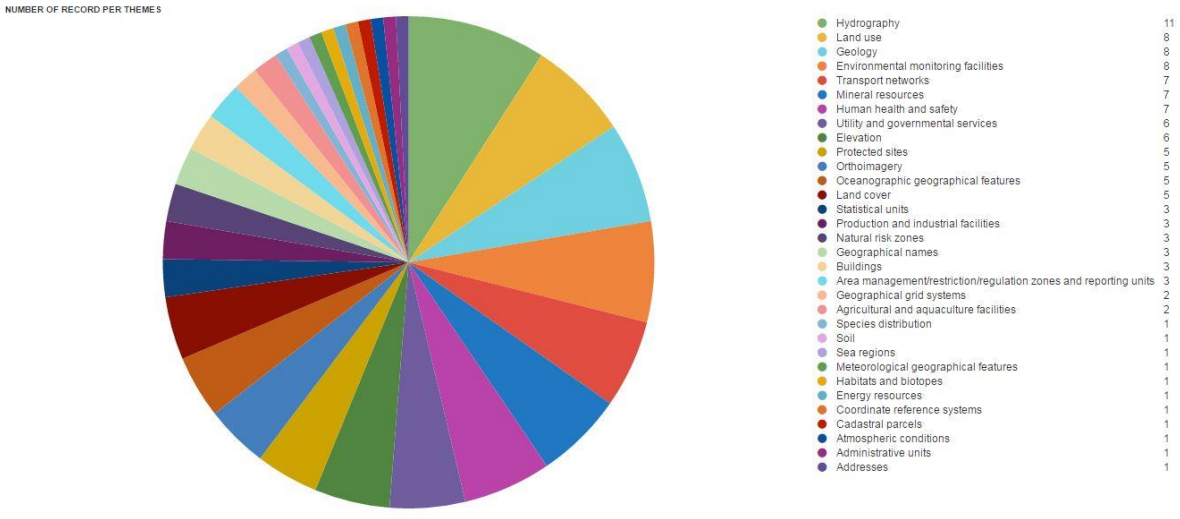
2.1. Identification of spatial data with relevance to the environment (step 1)

a. Evolution of the data offering

DSv_Num: number of spatial data sets for all Annexes

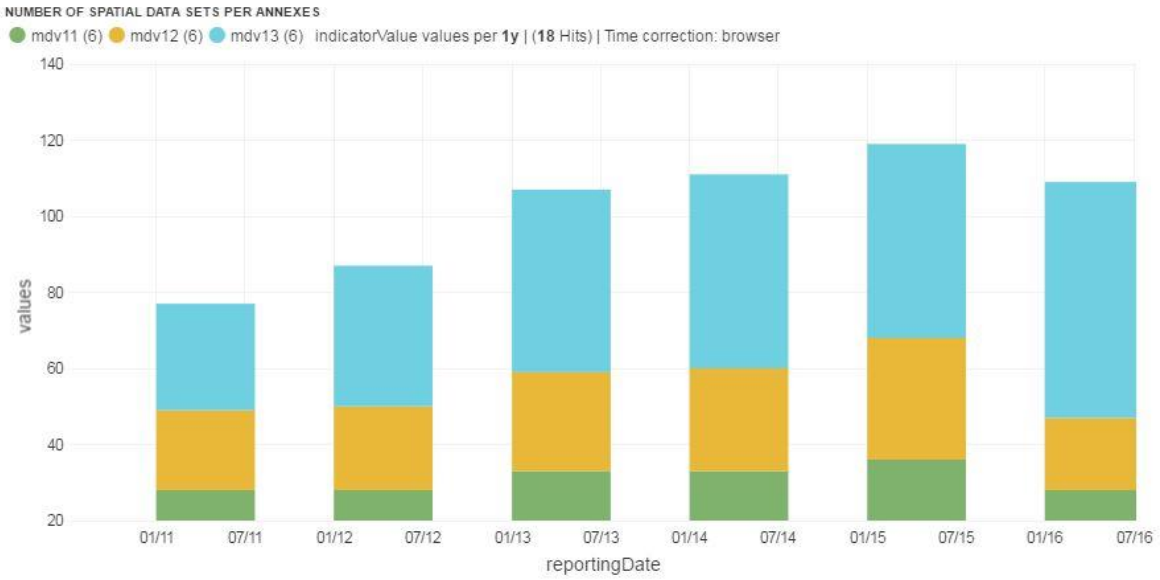


b. Data sets made available per INSPIRE theme in 2015



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:

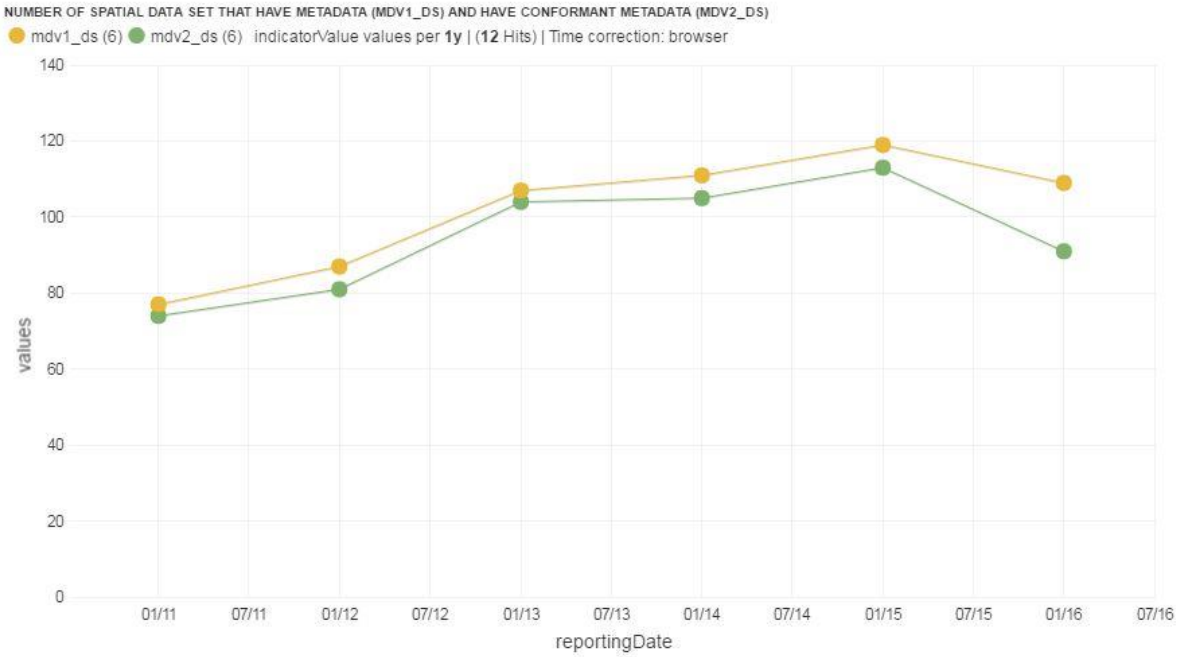
Latvia has identified a total of 135 spatial data sets with relation to the themes listed in the INSPIRE annexes.

The number of identified spatial data sets is more or less constant since 2013. A lot of relevant spatial data sets have already been identified for the different data themes. However, the identification still seems incomplete and Latvia 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)

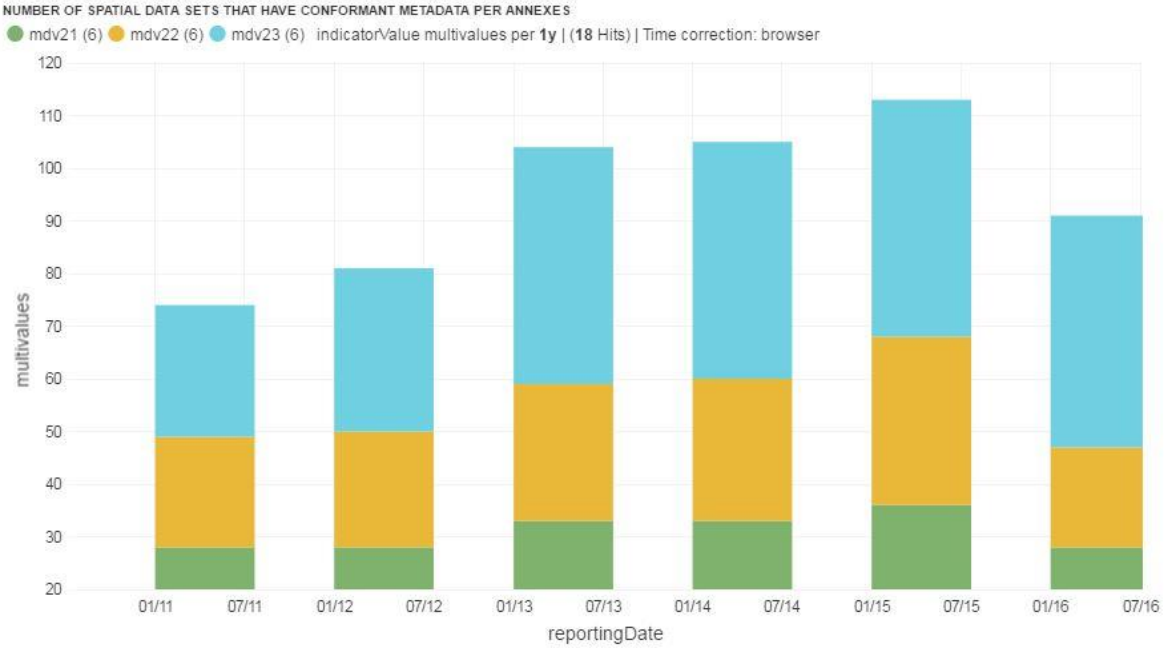
a. Evolution of documented data and conformity of the documentation

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



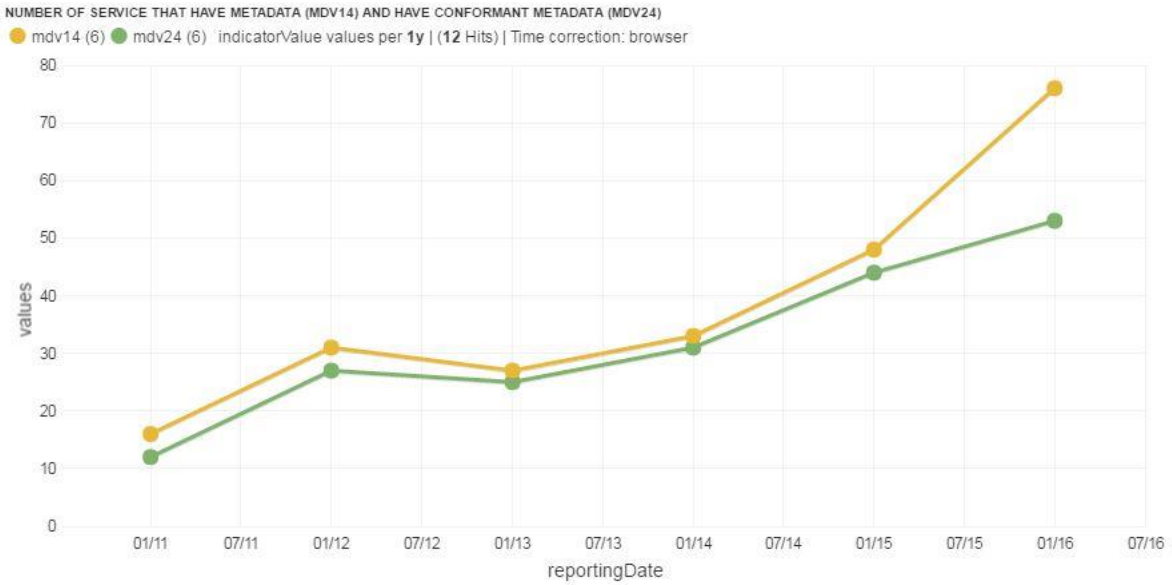
b. Documented data per annex in 2015

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



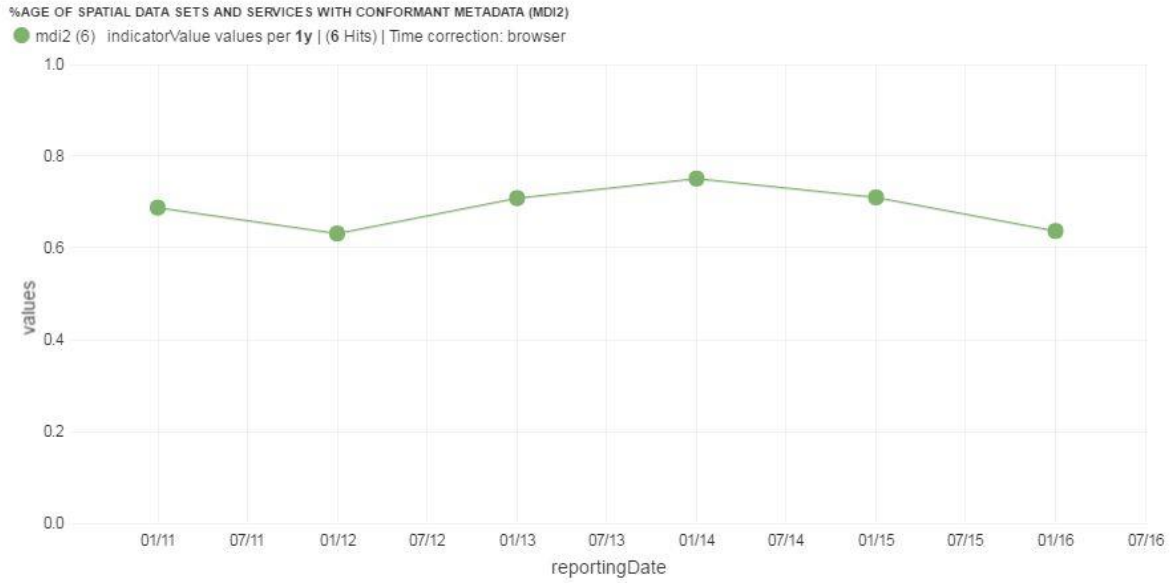
c. Evolution of documented services and conformity of the documentation

MDv1.4 (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)



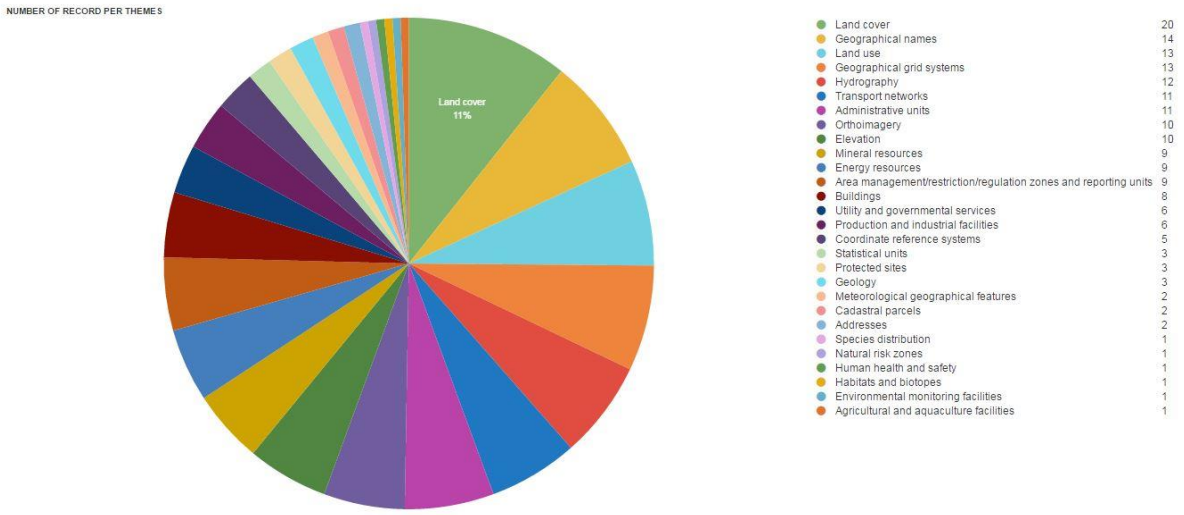
Evaluation of progress for step 2:
Latvia has documented and published metadata through a digital discovery service for 80,74% (109 out of 135) of the identified spatial data sets and 83,52% (76 out of 91) of the digital services. Overall, 63,71% of the metadata conforms to the INSPIRE metadata specifications.

It shows a high level of maturity. To support data discovery for the end-users of the INSPIRE infrastructure, Latvia should aim to achieve better technical conformity of the available metadata.

2.3. Accessibility of the data through digital services (step 3)

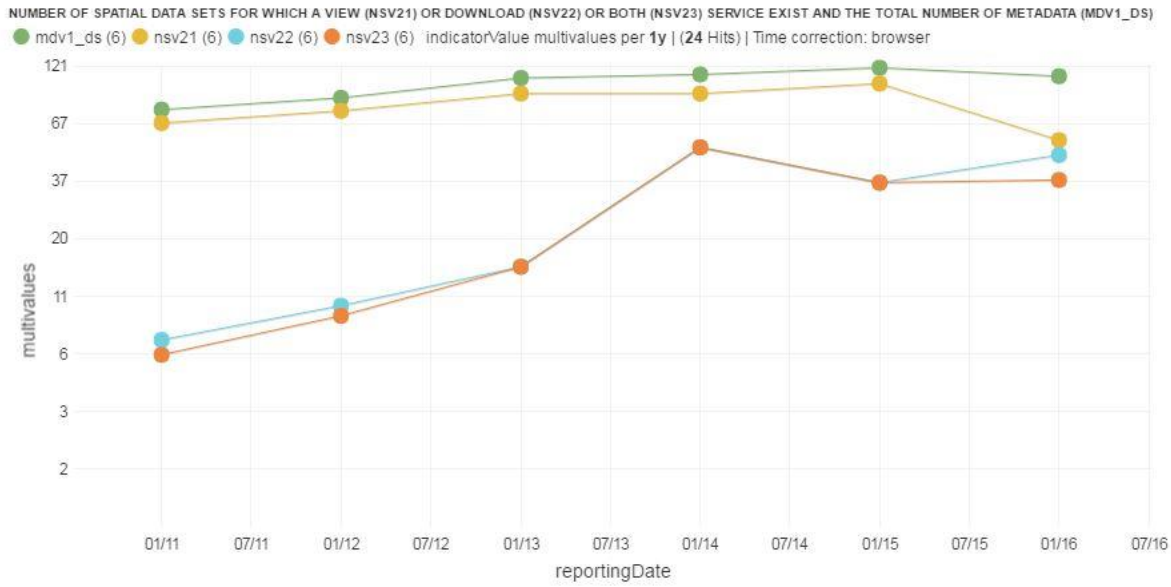
a. Digitally accessible spatial data per INSPIRE theme in 2015

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

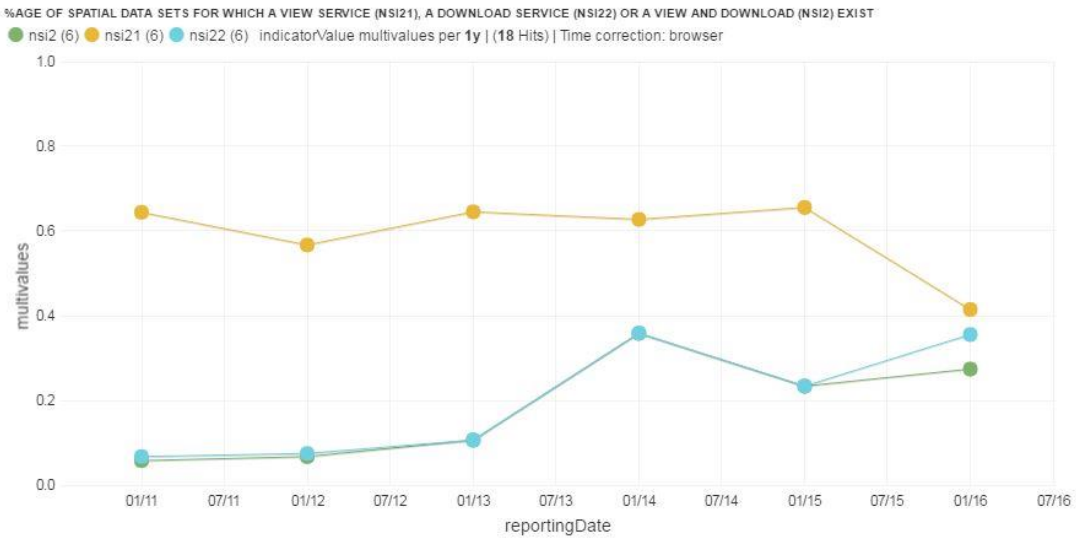
MDv1_DS (green): number of spatial data sets for all Annexes that have metadata
NSv2.1 yellow): number of spatial data sets for which a view service exists
NSv2.2 (blue): number of spatial data sets for which a download service exists
NSv2.3 (orange): number of spatial data sets for which both a view 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



c. Evolution of the conformity of the digital services

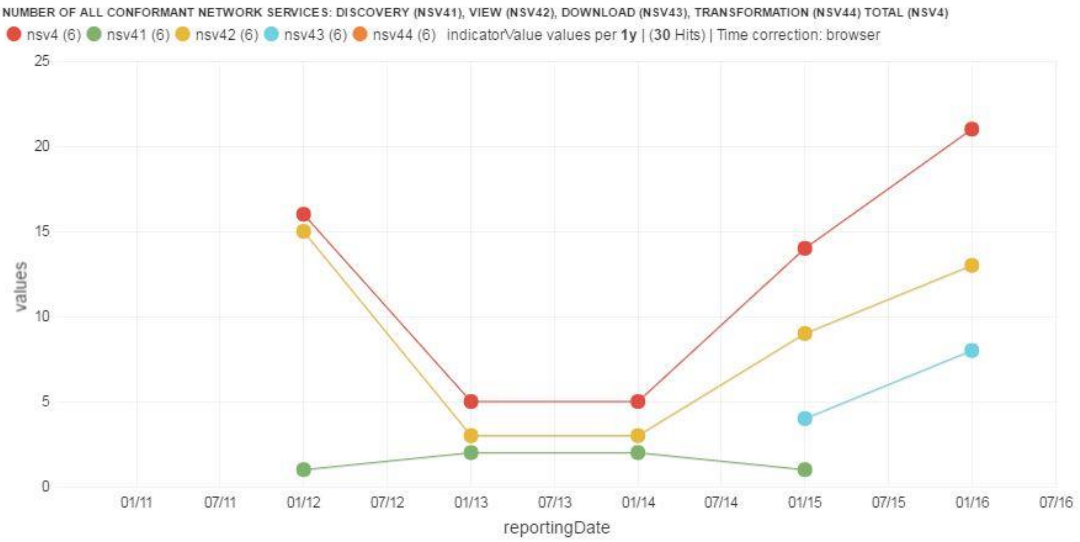
NSv4 (red): number of all conformant network services

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



Evaluation of progress for step 3:

Latvia has:

- 41,48% of its data sets accessible for viewing through a view service;

- 35,56% of its data sets accessible for download through a download service.

23,08% (21 out of 91) of the available digital services are conform to the INSPIRE network service specifications.

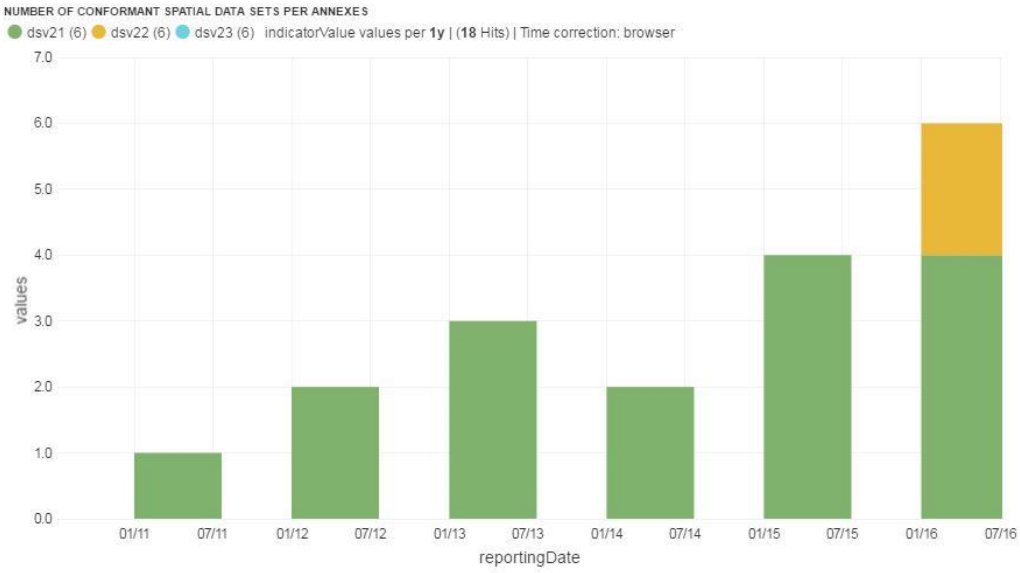
Latvia shows that it has built the necessary capacity and competences to make data accessible through digital INSPIRE network services. However, accessibility of datasets through view and download services and the technical conformity of the available services with the INSPIRE network services should be further 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:

Latvia reported 6 data sets to be conform to the INSPIRE interoperability specifications in 2015.

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

3. Outlook

Latvia has critically reviewed their INSPIRE implementation in 2015. The Ministry of Defence of Latvia as the coordinating body for the implementation of the INSPIRE

Directive in Latvia in co-operation with other ministries responsible for the implementation of the INSPIRE Directive have prepared an action plan (including a timetable) to address identified implementation gaps. In the action plan Latvia indicates that all data sets relevant for environmental reporting under the DG ENV acquis will be available "as-is" at the INSPIRE geoportal with the required INSPIRE metadata, view and download services by the end of 2016.

4. Summary - How is Country doing?

INSPIRE key obligation	Overall implementation status and trend	Outlook
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.	😐→	○

Dashboard Legend

Implementation Status:

☺: implementation of this provision is well advanced or (nearly) completed. Outstanding issues are minor and can be addressed easily.

😐: 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.

☹: Implementation of this provision is falling significantly behind or has not even started. Serious efforts are necessary to close implementation gap.

Trend:

↗: the trend of the implementation is positive.

→: the trend of the implementation is neutral.

↘: the trend of the implementation is negative.

Outlook:

○: clear and targeted actions have been identified which allow reaching the objectives of the legislation in an effective way.

○: 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.

○: no actions have been identified to overcome identified implementation gaps.

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.

Latvia 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 and implemented. Data-sharing in Latvia is implemented through global or bilateral cooperation agreements between public authorities. The cooperation model in place is not specific to spatial information, but is used for all kind of information. The licences used for spatial information are standardized.

Assessments of monitoring reports issued by Latvia and the spatial information that Latvia 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

- 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.