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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 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 2019 as an update of the information acquired through:

- · member states update,
- · monitoring report in May 2019.

# 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.

#### Coordination

## National Contact Point

Name of Public Authority: Ministry of Environmental Protection and Regional Development (MoEPRD)

Contact Email: Click to email

National INSPIRE Website: https://geolatvija.lv/geo/Cms/CmsArticle\_InspirePrincipleView?articleId=3

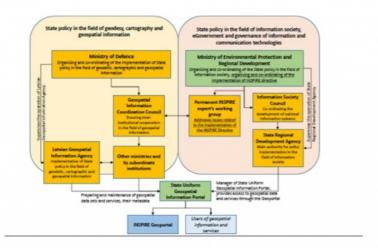
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#### **Coordination Structure & Progress:**

#### · National Contact point

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- The Ministry of Environmental Protection and Regional Development (MEPRD) is responsible for the State policy development, organization and coordination in the field of environment protection (17 from 34 INSPIRE data sets refers to environment), regional development, information and communication technologies` development, State information systems` development, as well as coordination of INSPIRE directive implementation (MEPRD) and development and maintenance of State Uniform Geospatial Information Portal (Latvian national geoportal https://geolatvija.lv/geo/Cms/CmsArticle\_InspirePrincipleView?articleId=3) (State Regional Development Agency, SRDA, authority operating under the supervision of MEPRD).
- In addition to the Environmental Protection and Regional Development and Ministry of Defence nine other ministries and their 20 subordinated institutions are involved into INSPIRE implementation, namely the Ministry of 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 I, II and III of 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.
- 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.

- Taking into consideration the reproach and warning received from the European Commission (EC) in 2015 regarding potential legal proceedings related to faulty implementation of the INSPIRE Directive in Latvia, as well as results of the joint meeting in January 2016 between the EC and Latvian responsible institutions representatives, the Ministry of Defence, in cooperation with responsible ministries, prepared an informative report about "Directive 2007/2/EC of the European Parliament and of the Council of 14 March 2007 establishing an Infrastructure for Spatial Information in the European Community (INSPIRE) implementation in Latvia". The report was supplemented by an action plan for disposal of implementation shortcomings of the INSPIRE Directive. The report was reviewed and accepted for information in the Cabinet of Ministers on 26 April 2016 (Cabinet of Ministers meeting minutes No. 20, 31§). The action plan the task performance schedule for the INSPIRE Directive implementation and the action plan for disposal of implementation shortcomings of the INSPIRE Directive (priority data sets) was sent to the EC on the 3rd of May 2016.
- One of the activities under the action plan was organization of training in order to improve knowledge and skills of responsible institutions' specialists responsible for INSPIRE data preparation for processing geospatial information and to solve the stated problems in geospatial data sets and metadata publication. Thus, the Latvian Geospatial Information Agency, in cooperation with the State Regional Development Agency, organized seven practical training sessions ("Master classes") in 2016 where representatives from the responsible institutions regarding the INSPIRE data sets preparation took part. In total, 65 participants from 24 different data holders' organizations took part in the classes (on average 21 participant per class). The following themes were discussed in the "Master classes": metadata, their preparation and publication, work with the INSPIRE interactive specification and data specifications; the INSPIRE code lists and the INSPIRE register; preparation of the ready INSPIRE data sets for publication in the INSPIRE viewing services, visualizing the ready data according to the requirements of the specification; the INSPIRE viewing and downloading services; the INSPIRE data publication on the Latvian geoportal infrastructure and the INSPIRE data exploitation in environment reports (example of the Directive concerning urban waste-water treatment).
- Geospatial data were prepared during the INSPIRE practical classes for several INSPIRE Directive's themes, for instance, Utility and governmental services (Annex III, theme 6), Population distribution demography (Annex III, theme 10), Sea regions (Annex III, theme 16), Area management/restriction/regulation zones and reporting units (Annex III, theme 11).
- Thanks to these classes, understanding of the INSPIRE Directive, its essence and implementation process as well as knowledge and practical work sequence with the INSPIRE documentation and geospatial data preparation methodology was improved among Latvian specialists. Compared to 2015, in 2016 and in 2017 the number of registered metadata entries was considerably increased in the Latvian geoportal as well as the number of prepared and published INSPIRE data sets and services.
- In April 2017, the Ministry of Defence as the responsible institution for the INSPIRE Directive implementation coordination in Latvia, reviewed the execution of the 2016 action plan. It was found that the best progress in execution of the action plan was made in the institutions under the Ministry of Defence, Ministry of Health, Ministry of the Interior and Ministry of Justice. Delays in execution of the plan were stated in the institutions under the Ministry of Agriculture, Ministry of Transport, Ministry of Culture, in the Ministry of Education and Science. However, the greatest delays were discovered in the institutions under the Ministry of Environmental Protection and Regional Development. The most important reasons for the delays were the lack of competence among geospatial data sets holders and preparers, incompliance of the existing services to the INSPIRE specification, insufficient financing for the INSPIRE data sets and services preparation.
- Taking into account the stated facts, the Ministry of Defence drew up a new informative report in April 2017 "Directive 2007/2/EC of the European Parliament and of the Council of 14 March 2007 establishing an Infrastructure for Spatial Information in the European Community (INSPIRE) implementation in Latvia" (Action plan for 2017)".
- The report concluded that further work of the INSPIRE Directive implementation was mostly related to the geospatial data sets which fell under the competence of the Ministry of Environmental Protection and Regional Development and that involvement of the Ministry of Defence in coordination of the geospatial data provision under the responsibility of the Ministry of Environmental Protection and Regional Development exceeded the authorities and competence of the Ministry of Defence. For successful further implementation of the INSPIRE Directive, direct involvement of the Ministry of Environmental Protection and Regional Development was necessary. Therefore, it was suggested to appoint the Ministry of Environmental Protection and Regional Development as the responsible institution for further implementation coordination of the INSPIRE Directive in Latvia.
- The report was reviewed in the Cabinet of Ministers on 7 November 2017 (Cabinet of Ministers meeting minutes No. 55, 40§). It was decided that the Ministry of Defence would work out amendments to the Cabinet of Ministers Instruction No. 686 of 28 December 2013 "On the Latvian Geospatial Information Development Concept" by appointing the Ministry of Environmental Protection and Regional Development as the responsible institution for coordination of implementation of the INSPIRE Directive. Besides, the Ministry of Environmental Protection and Regional Development was tasked to find solutions for financing redistribution till 15 November 2017 in order to provide compliance with the INSPIRE Directive requirements. Since comparatively great delays in the INSPIRE Directive implementation were also found in the responsibility fields of the Ministry of Transport, this Ministry had to find a solution, too. If till 15 November 2017 redistribution of financing was not made, the Ministry of Environmental Protection and Regional Development and the Ministry of Transport would have to assess the possible measures related to the INSPIRE Directive's requirements implementation in their respective fields of responsibility, to fully or partly finance the project using the European Union financing available for the respective ministry and in case of necessity to suggest redistribution of the financing.
- On 9 January 2018 the Cabinet of Ministers Instruction No. 12 "Amendments to the Cabinet of Ministers Instruction No. 686 of 28
  December 2013 "On the Latvian Geospatial Information Development Concept" became valid. The Instruction specified that in the
  future the implementation coordination of the INSPIRE Directive would be done by the Ministry of Environmental Protection and
  Regional Development.
- Latvian data providers keep working on the development of their information systems in order to ensure the availability of electronic geospatial data sets to end users. Public availability of data creates a feedback loop between the data provider and the society, which continuously improves data quality [Coherence].
- In order to provide for availability of the INSPIRE priority data and metadata and development and implementation of functionality needed for publication, two EU structural funds projects have been started and are executed by the largest holder of the INSPIRE priority environment data in Latvia the state Ltd. "Latvian Environment Geology and Meteorology Centre".

- The national geoportal (became operational in 2014) has improved the availability and accessibility of geospatial information https://geolatvija.lv/geo/Cms/CmsArticle InspirePrincipleView?articleId=3
- In 2017 (and continuing now in 2019) the metadata of data sets and services was significantly improved.
- In 2018, the number of records published in the metadata catalogue has increased in the following profiles: in the INSPIRE data profile 109 records (compared to 106 in 2017), in the INSPIRE services profile 120 records (in 2017 110 respectively), in the Latvian data profile 41 records (in 2017 35 respectively).
- According to the specification of the INSPIRE directive, State Regional Development Agency (SRDA) has established a single
  centralized point for entering and distributing metadata a metadata catalogue for centralized infrastructure (GDS). Any authority in it
  can request user rights and publish their metadata for data or services.
- GDS provides both data storage, distribution and service development and maintenance. As in accordance with the Cabinet of Ministers' Decree No.686 "On the Conception of Geospatial Information Development in Latvia" on the preparation and updating of a specific data set and its metadata is the responsibility of the relevant ministry have the opportunity to make relevant to distribute the data to the service, which means that the data set holder prepares the data according to the INSPIRE specification and guidelines, establishes the relevant service (if there is no own infrastructure, then can use the SRDA centralized solutions GDS) and register the service metadata in the GDS metadata catalogue.
- Since the providing of access to a specific service and service validation is the responsibility of each responsible ministry (data set owners), SRDA with its systems provides all the necessary functionality to do so: 1) the service management module provides the service required for the institution, 2) shared access management systems provide access control, 3) the Metadata catalogue provides the publishing, availability and transfer of metadata to the INSPIRE portal. As the new version of the validator is publicly available, data set holders can validate their services in it.
- The Metadata catalogue is being updated with the ability to specify keywords for priority data sets; changes introduced in April 2019.
- Many data providers developed their spatial data infrastructure, supporting INSPIRE data and services.
- More active cooperation between the bodies responsible for the implementation of the INSPIRE Directive was initiated, workshops and meetings, consultation process takes place continuously.

#### 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 Latvian national geoportal became operational in December 2014. The geoportal has improved the availability and accessibility of geospatial information. Technical problems due to the low level of interoperability 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 and 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 metadata catalogue, maintaining by SRDA — Latvia's geoportal (https://geometadati.viss.gov.lv/geoportal/catalog/wrapper/ivisgds.page#/).

#### 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 national geoportal (https://geolatvija.lv/geo/search) to facilitate the accessibility of data [Effectiveness].
- 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 cadastre data) available on the website (https://www.kadastrs.lv), LGIA topographic maps and orthophoto maps (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/), Latvian Institute of Aquatic Ecology used data 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). SLLC "Latvian Environment, Geology and Meteorology Centre" (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, Initial Flood Risk Assessment Report for 2019-2024 and Flood Risks management Plans and (https://www.meteo.lv/lapas/vide/udens/udens-apsaimniekosana-/upju-baseinu-apgabalu-apsaimniekosanas-plani-/upju-baseinu-apgabalu-apsaimniekosanas-plani-un-pludu-riska-parvaldiba? id=1107&nid=424).
- Still 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. Geospatial data sets are also available through the Open data portal: https://data.gov.lv/, connected with geospatial data service metadata catalogue; currently 68 geospatial data sets are available: https://data.gov.lv/dati/lv/dataset? organization=mdk.

# 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 geoportal 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 geoportal
  (https://geolatvija.lv/geo/), the free public LGIA Map browser https://kartes.lgia.gov.lv/karte/, the Flood risk map information system
  (http://syke.maps.arcgis.com/apps/webappviewer/index.html?id=f60441869a654c298a2d3b150ea7dc1c), the RSS field block map
  (https://karte.lad.gov.lv), Land reclamation cadastre data (https://www.melioracija.lv/), Meteorological observation information
  (https://www.meteo.lv/lapas/noverojumi/noverojumi\_ievads?&id=1136&nid=422) etc. Part of these e-services geospatial data interfaces
  are developed in English, e.g. the geoportal, LGIA Map browser.
- One of the main problems which hamper improvement of geospatial data sets sharing is a lack of funding for the maintenance of the basic data and geospatial information. Another problem is a lack of qualified GIS and IT professionals in the institutions, responsible for the preparation, validation etc. of geospatial data sets.

#### 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 country wide's geo-portal, also supported by EU funds:
- State limited liability company "Latvian Environment, Geology and Meteorology Centre" (LEGMC), generated and maintained the largest part of environmental data of Latvia, is implementing under the European Regional Development Fund 2.2.1.1.action "Creation of centralized public administration ICT platforms, optimization and development of public administration processes" project "Development and improvement of information systems for geospatial data and flood data of the Daugava basin" (ERDF project) and under Cohesion Fund 5.4.2.2.action "Development of the environmental monitoring and control system and the promotion of public participation in environmental management" second round project "Development of the national environmental monitoring and other environmental data processing and storage infrastructure" (CF project).
- The main activity of the projects of ERDF and CF for LEGMC is to transform data in accordance with Directive 2007/2/EC of the
  European Parliament and of the Council of 14 March 2007 establishing an Infrastructure for Spatial Information in the European
  Community (hereinafter INSPIRE). In a result of both projects the information system of LEGMC will be developed, improved and
  implemented so that delivery of services to the INSPIRE geoportal as well as data processing will be significantly facilitated.
- The total budget of the ERDF project for LEGMC is 1.1 million EUR (implementing period April 27, 2018 December 26, 2020), CF project 3.35 million EUR (implementing period December 14, 2018 December 13, 2022).
- The e-Health integrated information system has been developed within the framework of the Ministry of Health and ensures 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.
- In 2019 Agricultural Data Center is planned to supplement the administration of the animal housing register with satellite maps.
   Outsourcing developer was used, when implementing these projects. Total cost of these measures was EUR 29347.87 from 2016 to 2019
- INSPIRE project implementation will give to State Joint Stock Company "Latvijas gaisa satiksme" the possibility to provide aeronautical data not only in AIXM 5.1 format, which is approved by EUROCONTROL for ATM needs, but also to be interoperable within INSPIRE community
- The Latvian Geospatial Information Agency (LGIA) concluded an agreement on participation in the project "European Location Framework" (ELF) on 17 July 2015. The project was headed by the Norwegian mapping agency "Kartverket" in cooperation with mapping and cadastre agencies in many other European countries. Practical activity within the project started in 2016 when LGIA, using its previously prepared information, made available data that was related to three INSPIRE data themes: "Hydrography", "Toponyms" and "Land use" as well as their four related online applications "Hydrography", "Hydrographic network", "Toponyms" and "Land use". For implementation of the project, LGIA, with the mediation of the ELF consortium, actually received and used the European Union funds 6,340 euros, and co-financing of LGIA of 7,612 euros was also used for the project implementation.
- Officially the ELF project ended on 31 October 2016 when the activities under the ELF project were overtaken by the Europe's national
  mapping, cadastral and land registration authorities' association "Eurogeographics" by creating a new project "European Location
  Services" (ELS), and LGIA continues its participation in the ELS project as well.
- The main benefit of the ELF / ELS projects for the LGIA was that standardized geospatial data were prepared based on INSPIRE principles and INSPIRE technical specifications which in its turn will provide availability of the data; besides, distribution of the data has been promoted among different users, including in various countries.
- The LGIA keeps accounts of expenses that are directly related to updating and maintaining all of the INSPIRE data sets, their metadata and the relevant online applications under the responsibility of LGIA. The annual expenses make up 14,000 euros. The expenses are comparatively small because they do not include preparation of the necessary input data (orthophoto, toponym information, topographic maps, etc.).
- In 2018 LGIA began offering several new geospatial data sets to any interested persons as open data. The data are available on the Latvian national geoportal and on the LGIA Open data homepage (https://opendata.lgia.gov.lv). The LGIA data prepared for INSPIRE are also made available here which promotes their wider accessibility.
- The Latvian State Land Service (SLS) has also been involved in the ELF project by preparing data and services regarding the INSPIRE
  data themes "Land units", "Administrative territories", "Addresses".

- A number of measures were taken to introduce the INSPIRE directive into the Agricultural Data Centre: (i) An address correction project
  for animal housing has been implemented, specifying their coordinates, (ii) Improved animal housing registry administration software
  where it is possible to choose an animal housing location, (iii) Ltd. "Jāṇa Sēta Map Publishers" map system has been integrated in to
  the animal housing register. The mobile application has been developed to specify the coordinates.
- One of the main benefits for users 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: (I) 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, (ii) 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 sometimes 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 about 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).

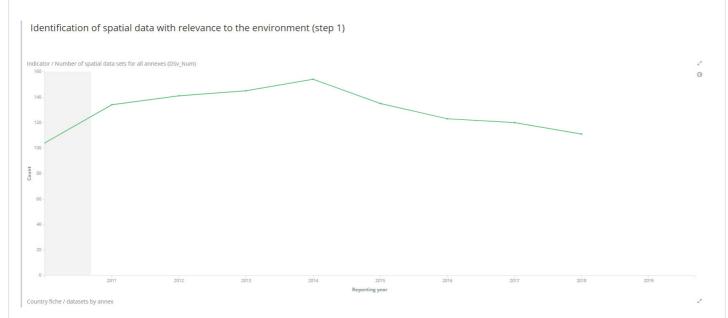
# Key facts and figures

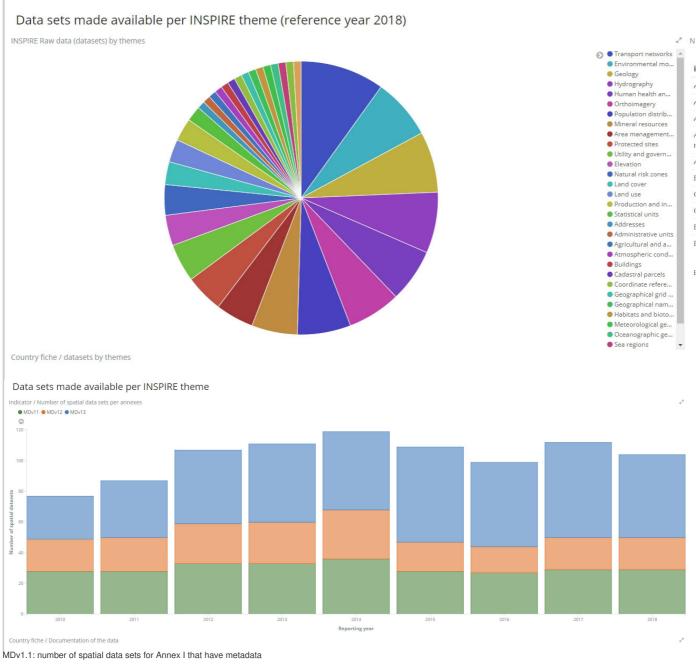
In addition to the above mentioned issues, the implementation of INSPIRE Directive requires Member States to take four main steps in relation to management of spatial datasets which fall under the Directive:

- 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.



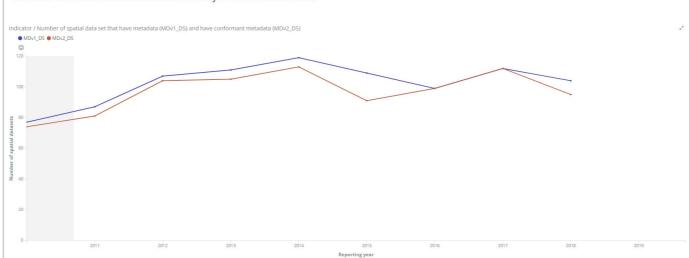


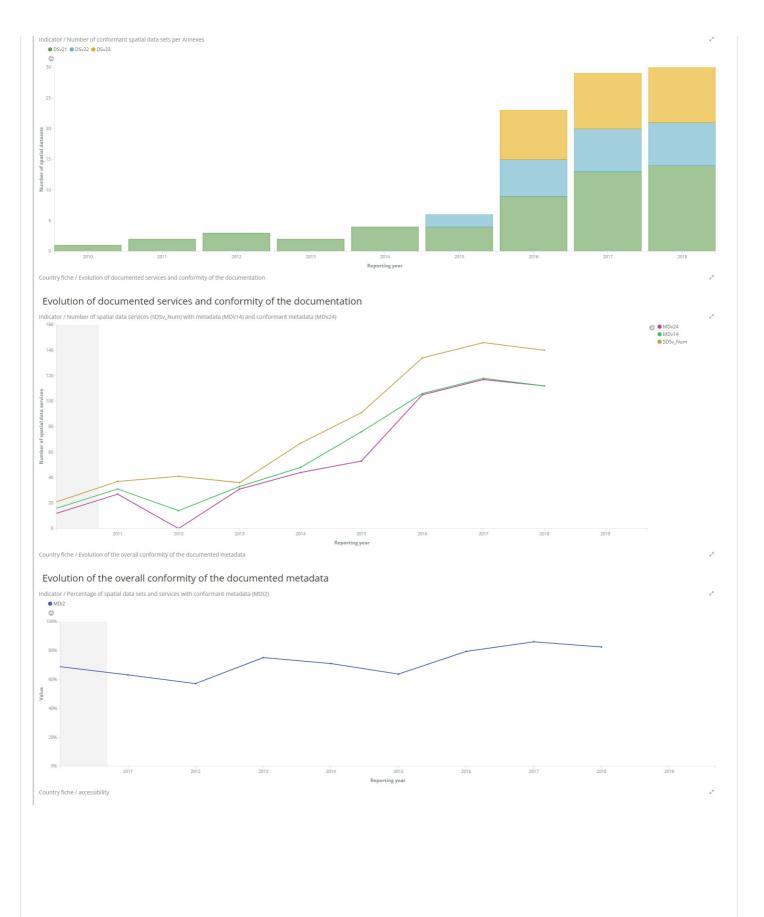
MDv1.2: number of spatial data sets for Annex II that have metadata

MDv1.3: number of spatial data sets for Annex III that have metadata

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

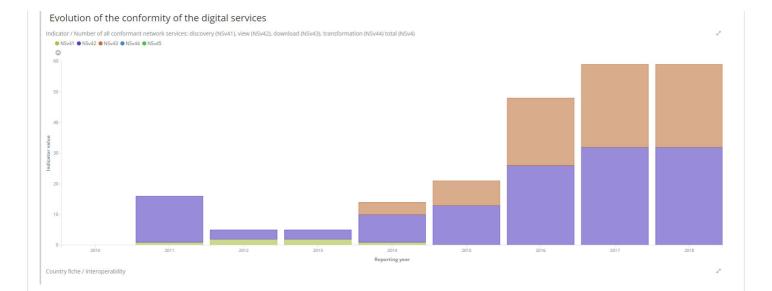
Evolution of documented data and conformity of the documentation





# Digitally accessible spatial data per INSPIRE theme (reference year 2018) INSPIRE Raw data (datasets available through services) by themes Transport networks Orthoimagery Protected sites Human health an... Elevation Hydrography Land cover Production and in... Area management... Environmental mo.. Land use Statistical units Addresses Administrative units Agricultural and a... Cadastral parcels Coordinate refere... Geographical grid ... Geographical nam... Geology Habitats and bioto... Mineral resources Natural risk zones Country fiche / Evolution of spatial data accessible through services Evolution of spatial data made accessible through digital services Indicator / Number of spatial data sets for which a view (NSv21) or download (NSv22) or both (NSv23) service exist and the total number of metadata (MDv1 ds) ● MDv1\_DS ● NSv21 ● NSv22 ● NSv23 Reporting year Indicator / Percentage of spatial data sets for which a view service (NSi21), a download service (NSi22) or a view and download (NSi2) exist ● NSi2 ● NSi21 ● NSi22 Country fiche / Evolution of the conformity of the digital services

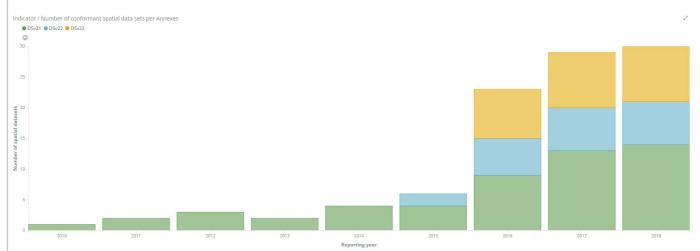
Accessibility of the data through digital services (step 3)



# 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 1089/2010http://eur-lex.europa.eu/legal-content/EN/TXT/puri=CELEX:02010R1089-201312308-qid=1400675738563). The deadlines for implementation of the spatial data interoperability are 23/11/2017 for Annex I data and 21/10/2020 for Annex I and III data.

 $\label{thm:evolution} \mbox{Evolution of the conformity with INSPIRE interoperability specifications for spatial data} \\$ 



DSv2.1: number of conformant spatial data sets with conformant metadata for Annex I

DSv2.2: number of conformant spatial data sets with conformant metadata for Annex II

DSv2.3: number of conformant spatial data sets with conformant metadata for Annex III