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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 Implementing Decision \(EU\) 2019/1372](#) on the 19th August 2019.

This country fiche highlights the progress in the various areas of INSPIRE implementation. It includes information on [monitoring 2020](#) acquired in December 2020 and Member States update.

State Of Play

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

Coordination

National Contact Point

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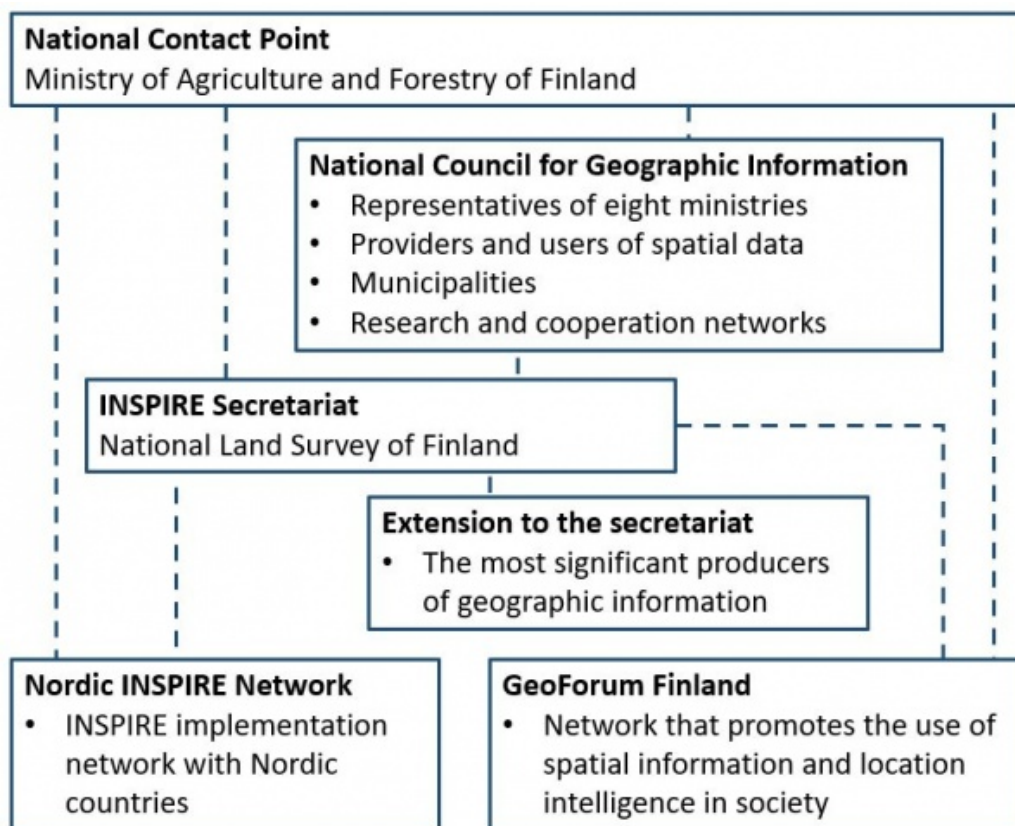
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**Coordination Structure & Progress:
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Coordination Structure

- The **Ministry of Agriculture and Forestry** is the national contact point of INSPIRE toward the province of Åland and the rest of Finland. The ministry of Agriculture and Forestry is represented in the MIG as well as in the INSPIRE committee.
- The **INSPIRE secretariat** at the National Land Survey of Finland provides support and guidance for national INSPIRE implementers and maintains national SDI services, such as the Finnish Geoportal. The INSPIRE secretariat is represented in the MIG and the permanent technical subgroup of the MIG and acts as the official secretariat of the national Council of Geographic Information and its extended secretariat.
- The **National Council for Geographic Information** consists of representatives of ministries, major data providers, Universities and co-operation networks. The following ministries are represented in the council: Ministry of the Interior,

Ministry of Defence, Ministry of Finance, Ministry of Social Affairs and Health, Ministry of Agriculture and Forestry, Ministry of Transport and Communications, Ministry of Environment and Ministry of Employment and Economy.

- The **Extended Secretariat of the National Council for Geographic Information** provides policy and implementation support. The following organisations are represented in the extended secretariat: National Land Survey, Finnish Environmental Institute, Meteorological Institute, Geological Research Centre, Finnish Transport Agency, Natural Resources Institute Finland, Statistics Finland, Digital and Population Data Services Agency, Finnish Transport and Communications Agency and City of Helsinki as the representative of the municipalities.
- **GeoForum Finland** is a network established in 2020 that promotes the use of spatial information and location intelligence in society. The network develops cooperation between the geospatial industry and organisations using spatial data; companies, public administration, educational and research institutions.
- The **Nordic INSPIRE Network** is an INSPIRE implementation network with Iceland, Denmark, Norway and Sweden. The network has meetings twice a year.

Functioning and coordination of the infrastructure

- The INSPIRE Directive (2007/2/EC) was transposed in Finland in 2009 by the Spatial Information Infrastructure Decree (725/2009) and the Act on the Infrastructure for Spatial Information (421/2009). The Province of Åland has, on the basis of its autonomy, adopted an Act on the Infrastructure for Spatial Information (2017:54).
- Finland has connected their **national discovery service** to the EU geoportal allowing for the publication of metadata for the available spatial data sets and services on the EU geoportal.
- The National Land Survey of Finland maintains the **Finnish geoportal** at <http://www.paikkatietoikkuna.fi>. The geoportal site also provides information about the national SDI and guidance for INSPIRE implementers.
- Altogether over 125 nationwide spatial datasets have been identified across different administrative levels (municipalities, regional councils and other regional actors, national administrations) as the scope for implementation of the INSPIRE Directive.
- Following a bilateral meeting with the Commission in April 2016 the Ministry of Agriculture and Forestry prepared an action plan to address any remaining implementation issues. Special attention was given to addressing provisions of the INSPIRE Directive in relation to other EU Environmental Directives and further identification of environmental datasets that are marked as priority data by the Commission. Cooperation and coordination between the environmental actors in Finland has been strengthened.
- The following issues that hinder the implementation have been identified:
 - In Finland the municipalities are obliged to implement the INSPIRE Directive, which is challenging. Some municipalities lack resources.
 - Need for better tools to support the implementation (e.g. validation tools to test compliance).
 - Complexity of data harmonization.
- **Progress:**
 - In 2020 the INSPIRE Secretariat has supported the national data providers in the transition to use version 2.0. of the Metadata Technical Guidelines. The work will be continued in 2021 together with the data providers on municipal and regional level.
 - An increasing amount of harmonised datasets have been published by the Finnish data providers at state level.
 - Please note, that Finland has decided to include all as is datasets in the harvesting to the INSPIRE Geoportal, which affects the monitoring results.
 - In 2020 progress has been made to build new national systems for the build environment (spatial plans, building permits) and address information.
 - Finland has evidences in producing INSPIRE Download services by using the OGC API - Features standard.
 - The province of Åland has adopted the Act on the Infrastructure for Spatial Information (2017:54) that repeals the former Act on Spatial Data Infrastructure (2010:85). The act implements the Finnish State Act on the Infrastructure for Spatial Information (FFS 421/2009), meaning the Finnish act is applicable in Åland with a few local derogations.
 - The National Council of Geographic Information regularly follows up the implementation of the INSPIRE action plan. To bridge the gap in the implementation, the national authorities under the scope of the INSPIRE Directive were asked to draft individual action plans. The national INSPIRE action plan has been further developed and updated by the extended secretariat of the National Council of Geographic Information to support the implementation of the INSPIRE Directive and the national SDI. The INSPIRE secretariat provides support and training to the obliged authorities.
 - Implementation of INSPIRE in Finland evaluation was completed in January 2021. National support will be strengthened based on the results of the evaluation.
 - A [report on spatial data policy](#) was published in 2018 by the Ministry of Agriculture and Forestry. The report defines a vision of spatial data functions in public administration in Finland and raises measures and directions for further development. The report was handled and approved by the Finnish Parliament. There are ongoing measures for the prioritised actions.
 - The Geospatial platform project was launched by the Ministry of Agriculture and Forestry in 2017 and ended in 2020. The platform provided datasets, tools and support for both SDI implementers and users to increase the interoperability of geographic information in society. Some of the tools developed in the project are part of the range

of services of the National Land Survey of Finland.

- The National Geographic Information Strategy was updated in 2016 for the timeperiod 2017-2018 to promote the availability of information and services, the opportunities for participation and the use of geographic information in support of decision-making. In 2020 a decision was taken to make a new national strategy on geographical information in 2021. GeoForum Finland coordinates the work.

Usage of the infrastructure for spatial information

- The use of geographic information has grown in recent years, mainly due to the increased public availability of information and the implementation of the INSPIRE Directive. The spatial infrastructure for searching, viewing and downloading has improved the accessibility of spatial data and has raised public awareness. The growth in use of download services has been significant, while the use of view services has somewhat stabilized. Overall, no significant changes have occurred since 2016.
- The national geoportal Paikkatietoikkuna provides a map interface, where the user can access and use over a 2000 maps in a comprehensive way. The geoportal is developed as open source code on the basis of the established geographic reference architecture and is available for reuse supporting a wide range of user interfaces and map publication. The geoportal is used daily by more than 3 000 different users.
- Broad access to spatial information is provided to the users by many different web applications serving specific use cases including municipal maps, routing and planning services, nationwide routing services, geography education, public points of interest, cultural heritage, agricultural applications and environmental applications.
- Access to spatial data has improved and the reported use of data has increased. The increasing use of geographic information has also encouraged data providers to improve the quality of the data and develop data products and services that are better suited to user needs. Spatial information industry companies also played a significant role in promoting the use of spatial information e.g. Finnish Location Information Cluster, a consortium of geospatial information sector companies offering spatial information services.

Data sharing arrangements

- The opening up of public information has continued and most of the nationwide INSPIRE datasets are open. For the conditions of use a broad international CC BY 4.0 License applies (Creative Commons license), significantly simplifying the use of the data in different member states and by EU institutions.
- Environmental data have been open to the public since 2008. The National Land Survey opened the terrain data in 2012. After that, many other authorities including the largest municipalities have opened or are planning to open data for free re-use. In 2015, already more than half of all the spatial datasets covered by the INSPIRE Directive are available as open data.
- Identified barriers to the use of spatial data are:
 - Ambiguities in terms of use, unclear data policies and data protection related to privacy consideration that limit effective sharing of data.
 - The use of geographic information and adoption of new policies require new skills in a variety of industries, which causes challenges especially the economically tighter times.

Costs and benefits

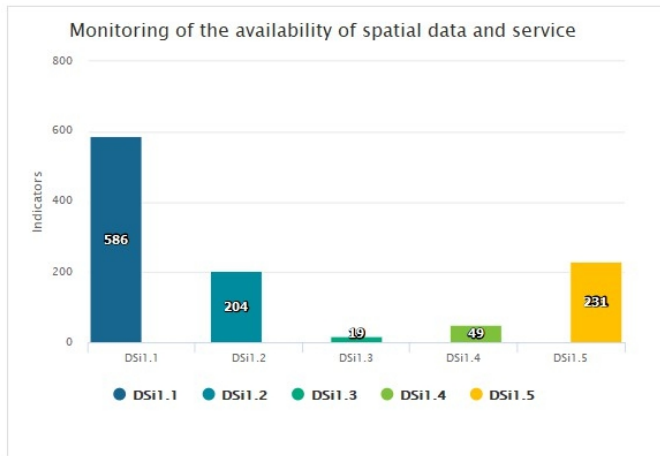
- The costs regarding the implementation of the INSPIRE Directive vary between actors and are difficult to estimate. Overall, no significant changes have occurred since 2016. According to surveys conducted in 2016 and 2019, the key causes of costs can be summed up as:
 - establishment and maintenance of network services, procurement of software, preparation of metadata, information harmonization (estimated costs between 2013-2015: EUR 4.4 million)
 - coordination, support, training, monitoring and development of centralized systems (estimated costs between 2013-2015: EUR 3.4 million).
- The identified benefits of the implementation of the INSPIRE Directive vary between actors from large to little or no benefits. The monetary value of the total benefits are difficult to assess and such information is currently not available. Overall, no significant changes have occurred since 2016. According to surveys conducted in 2016 and 2019, the key benefits can be summed up as:
 - Increased cooperation between actors
 - Increased (re)use of data
 - Increased quality of data
 - Increased discoverability and availability of data
 - Increased understanding of existing data sources
 - Easier access to data
 - Reduced efforts in data maintenance and sharing
 - More services for citizens are being developed
 - Better conditions have been created for decision-making

Finland

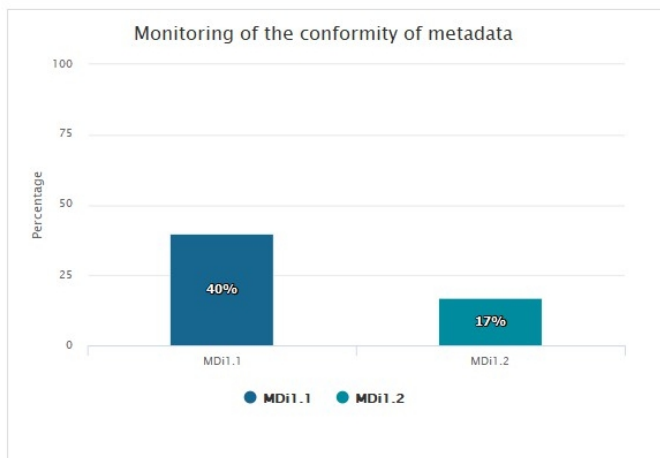
Indicators in support of [Commission Decision \(EU\) 2019/1372](#) implementing Directive 2007/2/EC (INSPIRE) as regards to monitoring and reporting

Graphs generated with data taken from: https://inspire-geoportal.ec.europa.eu/mr2020_details.html?country=fi

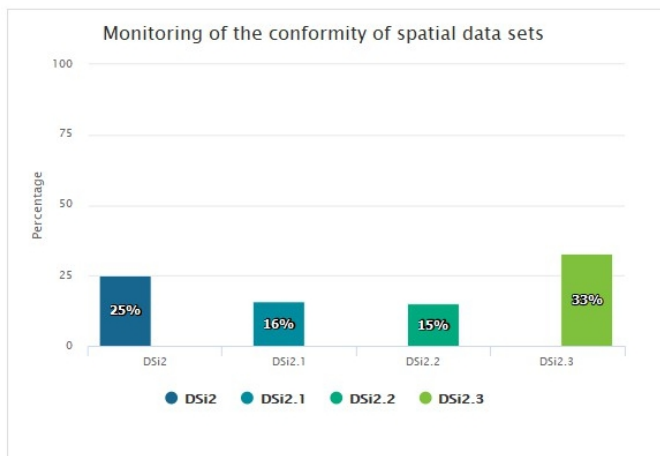
The date of harvest metadata: 18/12/2020



| Legend | |
|-----------|--|
| Indicator | Definition |
| DSi1.1 | The number of spatial data sets for which metadata exist |
| DSi1.2 | The number of spatial data services for which metadata exist |
| DSi1.3 | The number of spatial data sets for which the metadata contains one or more keywords from a register provided by the Commission indicating that the spatial data set is used for reporting under the environmental legislation |
| DSi1.4 | The number of spatial data sets for which the metadata contains a keyword from a register provided by the Commission indicating that the spatial data set covers regional territory |
| DSi1.5 | The number of spatial data sets for which the metadata contains a keyword from a register provided by the Commission indicating that the spatial data set covers national territory |

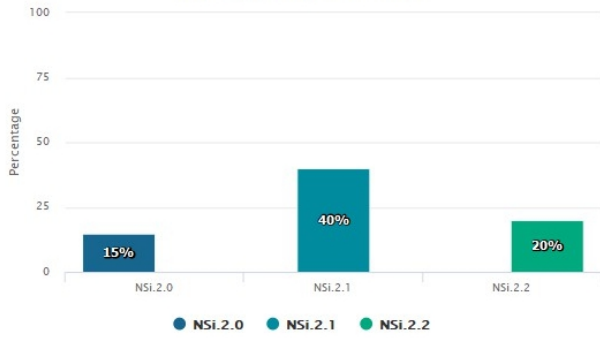


| Legend | |
|-----------|--|
| Indicator | Definition |
| MDi1.1 | Percentage of metadata for spatial data sets conformant with Commission Regulation (EC) No 1205/2008 as regards metadata |
| MDi1.2 | Percentage of metadata for spatial data services conformant with Commission Regulation (EC) No 1205/2008 as regards metadata |



| Legend | |
|-----------|--|
| Indicator | Definition |
| DSi2 | Percentage of spatial data sets that are in conformity with Commission Regulation (EU) No 1089/2010 as regards interoperability of spatial data sets |
| DSi2.1 | Percentage of spatial data sets, corresponding to the themes listed in Annex I, that are in conformity with Commission Regulation (EU) No 1089/2010 as regards interoperability of spatial data sets |
| DSi2.2 | Percentage of spatial data sets, corresponding to the themes listed in Annex II, that are in conformity with Commission Regulation (EU) No 1089/2010 as regards interoperability of spatial data sets |
| DSi2.3 | Percentage of spatial data sets, corresponding to the themes listed in Annex III, that are in conformity with Commission Regulation (EU) No 1089/2010 as regards interoperability of spatial data sets |

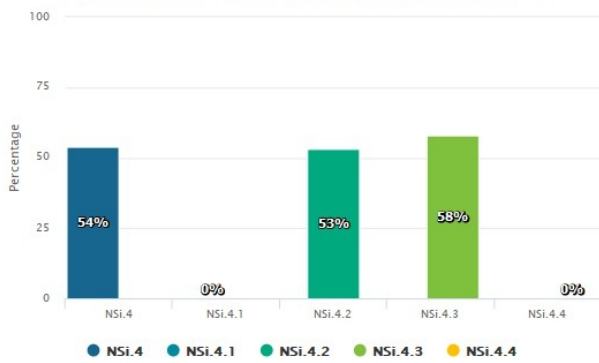
Monitoring of the accessibility of spatial data sets through view and download services



Legend

| Indicator | Definition |
|-----------|--|
| ● NSi.2.0 | The Percentage of spatial data sets that are accessible through view and the download services |
| ● NSi.2.1 | The Percentage of spatial data sets that are accessible through view services |
| ● NSi.2.2 | The Percentage of spatial data sets that are accessible through download services |

Monitoring of the conformity of the network services



Legend

| Indicator | Definition |
|-----------|--|
| ● NSi.4 | Percentage of the network services that are in conformity with Commission Regulation (EC) No 976/2009 as regards the Network Services |
| ● NSi.4.1 | Percentage of the discovery services that are in conformity with Commission Regulation (EC) No 976/2009 as regards the Network Services |
| ● NSi.4.2 | Percentage of the view services that are in conformity with Commission Regulation (EC) No 976/2009 as regards the Network Services |
| ● NSi.4.3 | Percentage of the download services that are in conformity with Commission Regulation (EC) No 976/2009 as regards the Network Services |
| ● NSi.4.4 | Percentage of the transformation services that are in conformity with Commission Regulation (EC) No 976/2009 as regards the Network Services |