

INSPIRE evaluation

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Evaluation of the INSPIRE Directive

- The INSPIRE Directive 2007/2/EC was amended by way of [Regulation \(2019/1010\)](#) on the alignment of reporting obligations in the field of legislation related to the environment, pursuant to which **the Commission shall, no later than 1 January 2022 carry out an evaluation of the Directive**, and of its implementation, and make it publicly available.
- The INSPIRE Directive was already subject to an evaluation in 2016, see Commission Report (COM(2016)478/2) and Staff Working Document on the REFIT evaluation of the INSPIRE Directive (SWD(2016)273).
- The Commission has drafted an evaluation Staff Working Document (SWD) based on the evidence and findings from the supporting study. This SWD is under internal scrutiny and is expected to be adopted in Q1 2022.

Links to the Green/Digital agenda

- The evaluation of the INSPIRE Directive was timely because its provisions and those of the Public Access to Environmental Information Directive date back more than a decade.
- We needed to consider the potential of INSPIRE in the context the recent European policy developments with its priorities for a [European Green Deal](#), its needs for better information, and the European [Digital strategy](#) initiative, that is also meant to enable delivering on Europe's goals for sustainability set out in the European Green deal.
- Europe's digital strategy package includes a [European Strategy for Data](#) covering i.a. the development of a legal governance framework for digital data of both the public and private sector in Europe and the establishment European Common data spaces.
 - Opportunities to strengthen the coherence and synergies with the recently revised European legislation on Open Data (specifically on aligning provisions on data sharing and re-use, INSPIRE Directive Art. 17).
 - The European Data Strategy announces a 'GreenData4All' initiative that includes as the starting point the assessment of the interaction between INSPIRE Directive 2007/2/EC and Directive 2003/4/EC on public access to environmental information.
 - The evaluation results will feed into a possible revision of the INSPIRE Directive as part of the 'GreenData4All' initiative and to position the INSPIRE in the emerging data landscape as key instrument to bring public data into the Green Deal data space.

Aim of evaluation

Support study for the evaluation of
INSPIRE (Directive 2007/2/EC on infrastructure for
spatial information in the European Community):

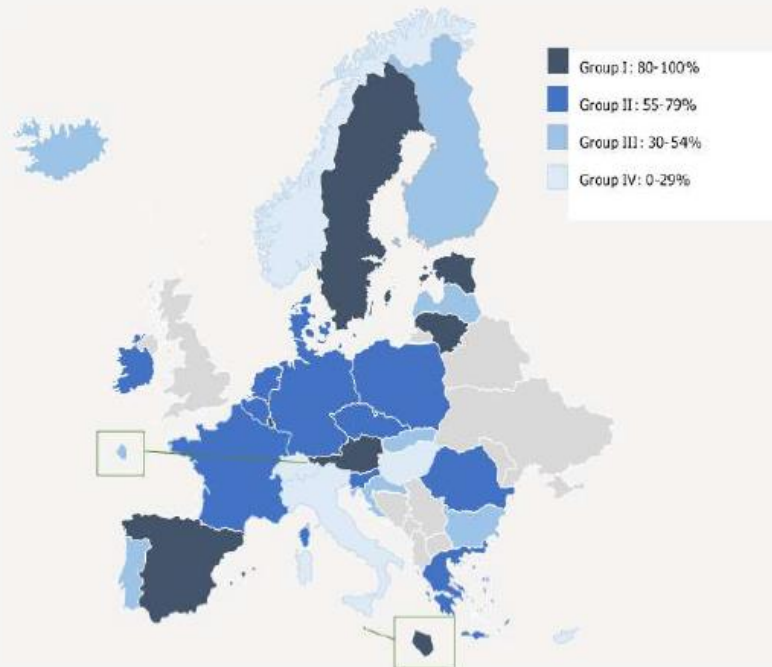
- > **Aim was to analyse:**
 - > how the INSPIRE Directive has achieved its objectives
 - > whether it is effective, efficiency, relevant, and coherent
 - > identify areas for future improvement.
- > **Period:** November 2021 to August 2021.
 - > Analysis of implementation data for 31 countries
 - > Interviews (15) and focus groups (7)
 - > Surveys (targeted (4) and validations (1))
 - > Public consultation (1)

Structure of the analysis

- > Current status: implementation status 2021
- > Effectiveness: did INSPIRE implementation have results?
- > Relevance: does INSPIRE continue to respond to needs and problems?
- > Efficiency: can benefits be justified by costs?
- > Coherence: is INSPIRE coherent internally and with other policies and legislation (i.e. EU legal framework on public data sharing).
- > EU Added Value: what could have been achieved by Member States in the absence of INSPIRE

Key findings – implementation

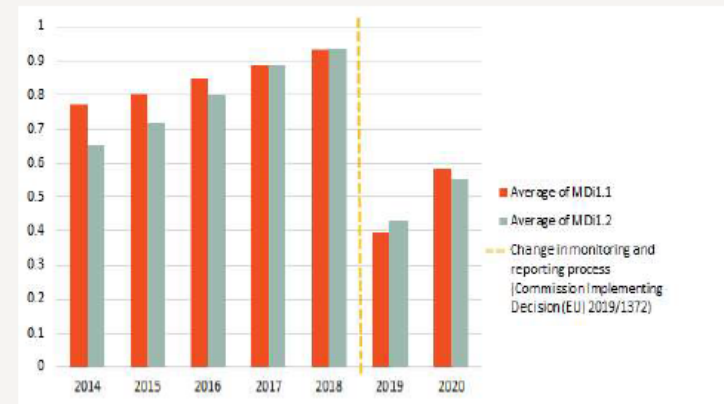
- › Analysis of 31 countries (EU and EEA/EFTA countries) provided overall implementation overview
- › progress has been achieved although no full implementation
- › The monitoring system does not fully reflect progress/progress
- › No additional barriers to implementation were identified
- › Difficult to assess use for environmental reporting
- › Focus has been on implementation – the effects on users is limited



Key findings – needs and efficiency

- > INSPIRE is relevant for policy making, less so for private sectors
- > **The issues:** for geospatial data (INSPIRE): access, integration, costs, harmonisation to information and more
- > **key benefits:** improved overviews, discoverability, availability and access to data - overall proportional to the costs
- > **Asymmetrical cost:** different perception of cost/benefit relations
- > **Scope for simplification:** attention should be paid to costs of harmonisation and interoperability (burden for stakeholders)

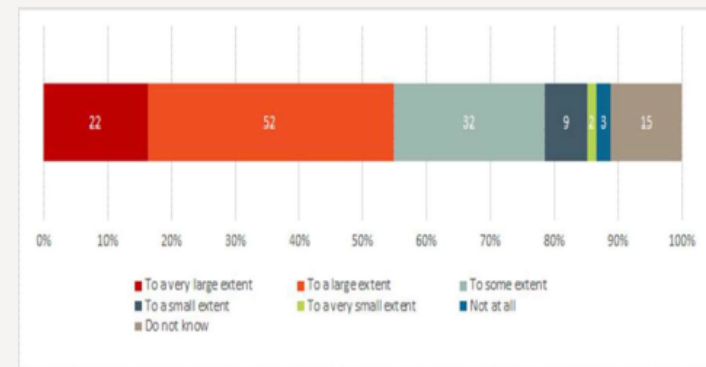
Figure 7 5 Conformity of metadata with Regulation (EC) No 1205/2008



Key findings – links to other policies and added value

- > **INSPIRE coherent internally and with other legislation/policy**
- > **Synergies** with data sharing and reporting initiatives in environmental and other areas could be further developed
- > At a **national level**, INSPIRE implementation supported:
 - > governance structures,
 - > achieving interoperability in a broader scope (EU-wide),
 - > unlocking public data
 - > and creating EU level expertise.
- > The rationale behind and the principles of the INSPIRE Directive are justified.

Extent to which the obstacles and needs related to sharing and disseminating spatial data as addressed by the INSPIRE Directive continue to require action at EU level (N=139)



Recommendations

- > the implementation of INSPIRE according to the INSPIRE roadmap supposed to have been completed in 2021.
- > there is still some way to go to reach the initial expectations.

Three key **groups of recommendation** are put forward:

1. Closing the implementation gap
2. Applying a user-driven approach
3. Ensuring an alignment of INSPIRE with other policy areas

1. Closing the implementation gap

- › The INSPIRE Roadmap will not fully achieved by the deadline of end of 2021

Recommendations:

- › **Prioritize data sets:** full interoperability of those that are used/needed
- › **Flexible implementation:** technology neutral, to allow for both well-established and emerging technological standards
- › **Simplify implementation:** to reduce costs of harmonization and interoperability
- › **Other digital processes:** align to make use and data reuse easier.
- › **Linkages between national SDI and INSPIRE:** will reduce cost and increase use of national SDI data for specific use cases.

Validation survey:

- › Need for a more targeted and proportional harmonization
 - › 91% Agree or strongly agree
- › Need to implement the INSPIRE Directive as part of the national SDI
 - › 81% Agree or strongly agree
- › Need to involve a more diverse representation of stakeholders
 - › 87% Agree or strongly agree

2. Applying a user-driven approach

- › There is limited knowledge of the needs of the different users
- › The use of datasets and services through the INSPIRE has barriers for users

Recommendations:

- › **Develop use cases:** of INSPIRE relevant data for making spatial data available and usable
- › **Identify spatial data users:** assess the current and future needs (content, formats and tools used, products and services)
- › **Define schemes and mechanisms:** to encourage the private actors to share their data
- › **Complexity of data models:** offer simpler views of structures and relationships between data elements (via complementary data models for non-expert users)

Validation survey:

- › Need for assessing the needs of the different user groups (private and public sector) to prioritise data to be harmonised
 - › 91% Agree or strongly agree
- › There are constraints to the USE of data shared under INSPIRE especially for less experienced users
 - › 79% Agree or strongly agree
- › There is a need to identify the obstacles to the use of data shared under INSPIRE
 - › 90% Agree or strongly agree

3. Ensuring an alignment of INSPIRE with other policy areas

- › No coherence issues with INSPIRE, but synergies could be enhanced in terms of:
- › **Public access to environmental information:**
 - › data referred to in Article 7(e) should be shared in accordance with INSPIRE.
- › **Open data Directive:**
 - › address derogations for public authorities to limit public access, license and require payment for data with Open Data Directive and High Value Datasets Regulation.
- › **Data Strategy and Green Deal Data space:**
 - › unlock the full potential of the INSPIRE Directive as an enabler for the European Green Deal
 - › include more data beyond the spatial data scope in the INSPIRE infrastructure
 - › develop a linked data approach to associate spatial and non-spatial data.

Validation survey:

- › There is a need to update Directive 2003/4 on Public access to environmental information so that spatial data covered by Article 7 is shared in accordance with INSPIRE rules
 - › 72% Agree or strongly agree

MIG mini-Workshop (17 June 2021)

The future of INSPIRE (revisited)

- The workshop was guided by a survey to which 21 experts from 20 countries participate.
- The INSPIRE MIG expert group identified the following key drivers for developing policy options to revise the INSPIRE Directive:
 - Close remaining implementation gaps.
 - Align the legal framework with more recent and emerging data legislation under the European strategy for data.
 - Renew the technical scope of the Directive using the principle of technology-neutrality for a future-proof architecture. Maximize implementation flexibility while maintaining minimal interoperability mechanisms.
 - Strengthen demand-driven data scoping responding to information needs on all administrative levels.
 - Include data quality provisions.
 - Take into account cost-recovery/financing of the infrastructure to ensure long-term continuity.

JRC Science for policy report¹

INSPIRE - A Public Sector Contribution to the European Green Deal Data Space

- In order to stay fit for purpose SDI should evolve from complex and highly specialised geospatial data frameworks to flexible, open, agile, and self-sustainable data ecosystems.
- The entry level to the data ecosystem should be lowered and the sharing and consumption of data by communities should be diversified
- There is a need to blend SDIs, including INSPIRE, within a larger European data space, thus enabling various actors to seamlessly discover, access and use data for whatever final purpose, being it a research study, a policy intervention or a business application in any geospatially-related domain.
- To support this challenging objective, this science for policy report demonstrates the need for a simplification and modernisation of the INSPIRE technological framework in a user-centric and agile manner.
- The future INSPIRE infrastructure should be an integral part of the European data spaces.

¹ Kotsev, A., Minghini, M., Ceti, V., Penninga, F., Robbrecht, J. and Lutz, M., INSPIRE - A Public Sector Contribution to the European Green Deal Data Space, EUR 30832 EN, Publications Office of the European Union, Luxembourg, 2021, ISBN 978-92-76-41564-0, doi:10.2760/8563, JRC126319.

Findings of the evaluation (SWD)

- The **implementation** of the INSPIRE Directive **has matured** compared to 2014 and has led to an increased availability and better access to spatial data and services. **However, still the implementation is incomplete.**
- While the INSPIRE Directive is **still largely fit for purpose**, the objective of harmonisation and interoperability within the INSPIRE framework entails **technical specificities for standards that are too rigid to be fit-for-the-future** in the context of evolving standards and technologies.
- INSPIRE has **facilitated the work of the stakeholders** in the area of spatial data provision through improved discoverability, availability and accessibility to spatial data.
- There is a **simplification potential** of the implementation by addressing the requirement for interoperability.

Findings of the evaluation (SWD)

- INSPIRE is **legally coherent** with environmental legislation with geospatial reporting obligations and with other relevant areas of EU policy. The INSPIRE Directive has been **designed to be consistent with the EU legal framework on data/information sharing and dissemination** and can **support implementation of Public Access to Environmental Information Directive** and the Open Data Directive. Synergies between the three Directives could however be better exploited (reuse conditions, metadata ...).
- The **added value** of the Directive mainly consisted of promoting data sharing as a common principle, the establishment of governance structures, achieving interoperability in a broader scope (EU-wide), unlocking public data, improving transparency and creating a pool of EU level expertise.
- Important EU added value of the Directive can be maintained and further enhanced through its effective positioning in the emerging European data governance landscape and to become one of the key drivers of the upcoming Green Deal data space.

Recommendations (SWD)

- A number of issues that hamper the full implementation of the Directive have been identified and show the **need for a revision** to make the INSPIRE Directive fully coherent and complementary in support of more recent digital and data legislation.
- Remaining **implementation gaps in Member States need to be closed** to optimise the reuse of spatial data and facilitate its pan-European use.
- **New data sources should be included** (IoT data, citizen-generated data, business data ...) beyond the current spatial data scope to better address information needs of a larger stakeholder community and to better help meeting the objectives of the European Green Deal.
- The further implementation (data and services availability, accessibility and interoperability) of the INSPIRE Directive should be **user-driven** by a common demand across administrative levels and use cases to improve the EU added value of the infrastructure and its cost-benefit balance.

Recommendations (SWD)

- The **legal framework should be technology neutral**. Implementers should have the option and the freedom to deploy cost-effective off-the-shelf tools that apply state of the art technology to share data in a user-friendly way.
- **More work is needed**
 - on standardising data reuse conditions and licensing
 - on increased flexibility of the legal framework to make it future and technology proof
 - on further simplification of the minimal interoperability mechanisms to strike a cost-effectiveness balance.

Timing for a revision of the INSPIRE Directive (indicative)

- The revision of the INSPIRE Directive and parts of the Public Access to Environmental Information Directive has been politically validated,
- November/December 2021 – Publication of the Inception Impact Assessment roadmap for public consultation
 - Close implementation gaps and maintain the legal framework.
 - Align the legal framework with more recent and emerging data legislation under the European strategy for data, such as the data reuse provisions of the Open Data Directive, the related [initiative for an Implementing Act on High Value Datasets](#), the proposal for a regulation on European data governance ([Data Governance Act](#)) and the Data Act;
 - Modernise the data regime and the implementing regulations in line with technological and innovation opportunities - principle of rendering the Directive technology neutral / future proof
 - Extending the data scope of the INSPIRE Directive to also include non-spatial, citizen science and business data building on the mechanisms the Data Governance Act and the Data Act.
 - ...
- Q1 2022 – Start Impact Assessment study
- Q2 2022 – Public consultation
- ...