

The First Seven Years of INSPIRE Implementation



Table 6.1. Status of metadata as reported by the Member States in 2013 (figures for 2012)

	% data sets with compliant MD			% services with compliant MD
	Directive II	Directive II	Directive III	
Austria	95	97	100	100
Belgium	10	10	100	100
Bulgaria	0	0	0	100
Croatia	0	0	0	0
Czech Republic	81	100	100	100
Denmark	100	100	100	100
Estonia	100	100	100	100
Finland	90	100	100	100
France	80	100	100	100
Germany	90	100	100	100
Greece	41	100	100	100
Hungary	90	100	100	100
Ireland	80	100	100	100
Italy	90	100	100	100
Latvia	90	100	100	100
Lithuania	90	100	100	100
Luxembourg	100	100	100	100
Malta	90	100	100	100
Netherlands	100	100	100	100
Poland	90	100	100	100
Portugal	100	100	100	100
Romania	90	100	100	100
Slovakia	90	100	100	100
Slovenia	90	100	100	100
Spain	90	100	100	100
Sweden	100	100	100	100
United Kingdom	100	100	100	100

The INSPIRE Directive has had a massive impact on the provision of European GI and hence on software developers and users. We now have a 94 page 'autobiography' of the first seven years of INSPIRE which makes fascinating reading. It complements the insiders' view from the EU and Member State data

providers with the perspectives of over 700 responses from an international consultation and an independent academic review, says Ian Masser.

The 'Midterm evaluation report on INSPIRE implementation' (<http://inspire.ec.europa.eu>) is, arguably, an 'autobiography' written by a team of officials from the European Environment Agency and the Joint Research Centre led by Christian Ansorge and Massimo Craglia, who have been closely involved in its development. It also draws heavily on the reports on implementation from each EU member state; an independent assessment by KU Leuven; and a public consultation that had some 700 responses.

The report is a requirement of the Directive at the halfway stage to full implementation and, as such, is aimed at the European Parliament and Council. It evaluates progress towards achieving the original objectives and considers the need for policy action to align existing approaches better to changing circumstances. The first three short chapters explain the rationale for the report, identify the key elements of INSPIRE and outline the methodology for the assessment.

Chapter 4, on the state of implementation, is the heart of the report. It considers legal transposition by Member States (MSs) and the coordinating structures that have emerged within each country. It also considers the development of the implementing rules, the use of the emerging infrastructure, and the estimated costs and benefits of its implementation. There are two chapters on INSPIRE's links to environmental legislation and policies, as well as to other policies and activities. The final chapter is a synthesis of the findings of the assessment and this article describes highlights of the state of implementation and the synthesis of findings.

The State of Implementation

The first section of chapter 4 shows that the Directive has been successfully transposed into the legislation of all 27 states, which formed the EU in 2007. Croatia, which became a full member in July 2013, had already enacted the necessary legislation in May of that year. However, it should be noted that only one state met the original transposition deadline, and the European Commission had to threaten 'infringement' procedures against the others.

At the EU level there were questions of issues relating to coordination and communication, the development of implementing rules as well as maintenance and implementation. The report concludes that the participatory model that was first developed for the general coordination of INSPIRE activities, and the formulation of implementing rules, are successes that need to be maintained and further developed. At the same time more effort is needed to embed INSPIRE fully into other related environmental activities.

Coordination at the national level is discussed with respect to the advantages of centralised and decentralised coordination structures, the role of the lead organisation, the stakeholder board membership and the effectiveness of coordination. It can be seen that a federal structure, as emerging in France, Germany and Spain has the advantage of involving far more stakeholders at the subnational level than is the case with centralised coordination structures. In countries where the latter is in place, the need for local government agencies to operate through national organisations can have a negative impact on their motivation to participate actively in implementation.

An important factor is the role of the lead organisation – usually the national mapping and cadastral organisation or the environment ministry. These large organisations have the necessary human, financial and technical resources to shape the form and nature of national implementation. Typical stakeholder boards for coordination contain only the main stakeholders and, in

many cases, the freedom of action of these bodies is constrained by a national spatial data infrastructure (NSDI), open data requirements and/or eGovernment policy.

The section on implementing rules considers their impacts on six key components of the Directive: metadata, network services, the INSPIRE geoportal, interoperability, sharing of spatial data/ services, and monitoring/reporting.

1. **Metadata:** Table 1 shows the status of metadata reported by each MS in 2013. This shows considerable progress with the creation of Annex I and II metadata, although not all of the metadata is INSPIRE compliant. A third of countries, including the UK, reported more than 90% compliant metadata but some of the others lagged far behind, frequently citing lack of resources and complexity of specifications as reasons for the delay.
2. **Network Services:** There are clear parallels with metadata and, on average, 63% of the required metadata spatial datasets and services is available through discovery services and 27% of the data is available to view and download. Again, there are marked variations between countries.
3. **The INSPIRE Geoportal:** Usage of the pilot INSPIRE geoportal mirrors the content of the national discovery services. Only Bulgaria, Cyprus, Hungary, Italy, Lithuania and Malta had not connected at least one discovery service to the geoportal. The public consultation suggests that relatively few respondents used the EU wide geoportal: national and regional geo-portals were much more popular because most users were only looking for national data.
4. **Data Interoperability for Annex I:** The current timetable requires MS to comply with the implementing rules for data interoperability only for newly collected and extensively restructured Annex I spatial datasets. So far the implementation of INSPIRE is not consistent across all MS due to differences in the effectiveness and communication of the national coordinating organisations. Nevertheless, implementation in several countries has enabled stocktaking of who is responsible for what data, and has created opportunities for reorganising data holdings to reduce duplication.
5. **Spatial Data and Service Sharing:** Agreements for sharing, access and use are among the main components of an infrastructure for spatial information and MSs are adopting a variety of measures for spatial data and service sharing between public authorities. The main focus has been on sharing and providing access to the basic (reference) spatial datasets such as topographic maps, geographical names, addresses, and orthoimagery. The public consultation suggests that INSPIRE has contributed to a more open policy for the public sector but that there are still a number of organisational, technical and legal barriers to sharing.
6. **Monitoring and Reporting:** Annual quantitative monitoring and the three yearly country reports are the main sources for evaluating the progress of INSPIRE. However, there are concerns about the relevance and reliability of some indicators and the country reports vary considerably in quality. There is also a tendency to focus on technical implementation at the expense of issues such as data sharing and the extent to which INSPIRE is supporting national environmental policies.

The last two sections of chapter 4 deal with the use of the infrastructure and the costs and benefits. With respect to the use of the infrastructure, the report concludes that this is particularly difficult to measure and that further work on this topic is needed. The key finding of the 2013 country reports is that costs so far are in line with initial expectations but that most of the benefits in terms of improved data access, better cooperation in the public sector, and better services to citizens and business, have yet to be fully realised.

Chapter 4 concludes with a summary of the state of implementation.

The Results of the Assessment

Chapter 7 describes the results of the assessment. These suggest that implementation has reached its half way stage with generally positive outcomes. Three of the five original objectives have undergone a positive evolution. Increased availability of metadata has led to improved documentation, and considerable progress has also been made with establishing internet-based network services. Interoperability is improving, even though most of the measures required have yet to be implemented. Organisational, legal and cultural barriers still restrict data sharing and the arrangements that have already been made for coordination need strengthening at the EU, national and local levels.

The evidence presented in the report clearly shows the uneven implementation of the INSPIRE Directive across the EU and points up markedly different progress between Member States. The report concludes that some form of additional support is likely to be needed to help Member States that are lagging behind.

We look forward to INSPIRE Part II in 2020 – with perfect hindsight!

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<https://www.gim-international.com/content/article/the-first-seven-years-of-inspire-implementation>
