GIM INTERNATIONAL INTERVIEWS JOERI ROBBRECHT

INSPIRE Boosts Spatial Data Sharing

The INSPIRE Directive was introduced in 2007 and should reach full implementation in 2020. Today, over halfway through the process, various important milestones have already been achieved while others still lie ahead. *GIM International* took the opportunity to join Joeri Robbrecht, policy analyst for the DG Environment of the European Commission, in reflecting on the journey so far and looking ahead to the future direction. Read on for the interview.

What is the European Commission's opinion of the current state of implementation?

The European Commission has assessed the state of implementation and the fitness of the INSPIRE Directive for its intended purpose. The efforts made by the Member States have resulted in good progress but overall there are still significant differences between Member States and several implementation gaps have been identified. Based on the outcome of this fit-for-purpose evaluation of the Directive, an implementation strategy is being developed together with the Member States to ensure that future implementation actions will maximise the societal and environmental benefits from the Directive.

Are you seeing usage growth?

The beating heart of INSPIRE is the infrastructure behind it. As with every infrastructure, the success of INSPIRE is measured by its usage – but it's not easy to measure the use of the infrastructure quantitatively. INSPIRE is implemented as a federated network of information providers built on existing spatial data infrastructures (SDIs) in the individual Member States. Every Member State has a different approach to assessing the use of its SDI which makes it difficult to make an objective comparison between Member States and gain a holistic view of the global usage of the infrastructure. More important than the number of service requests or the amount of spatial datasets is the actual use of the available information by public administrations, businesses and citizens in applications and processes that support environmental policies and drive e-government. End-user applications are essential to show the benefits of the infrastructure. Since we have not yet reached the full extent of the implementation of the Directive (e.g. data harmonisation deadlines in 2017 and 2020), its use at EU level is still limited. However, it's a very good sign that we're seeing the emergence of more and more applications and portals in the Member States that are use INSPIRE data and network services to support public administration processes or enable these assets to be integrated in business value chains. Over the coming years, the INSPIRE implementation strategy will pay special attention to aligning INSPIRE with digital agenda and e-Government initiatives to further promote the uptake of INSPIRE within a larger digital community.

Who are the users of INSPIRE?

The users are professionals, public administrations, non-governmental organisations, businesses and citizens…every conceivable kind of user. The INSPIRE Directive opens up a wealth of spatial information that is useful for a myriad of practical situations. Geoprofessionals have the necessary instruments to directly access the core services of the infrastructure, whereas for non-professionals it is key to offer user-friendly applications that provide access to the information within a context that is relevant to them. Over the past period, INSPIRE implementation has mainly been focused on the technical 'plumbing' and the regulatory framework for data sharing. These are necessary prerequisites, but alone they are not enough to add value for public administrations, businesses or citizens. To bridge the 'last mile' to the end user and show the real value and benefit of the INSPIRE Directive, user interfaces such as web applications or mobile apps that satisfy specific information needs are essential. There are already plenty of examples of good practices across Europe. For example, the Flemish geoportal (www.geopunt.be) illustrates the use of INSPIRE as a driver for applications and services that are used by both professionals and non-professionals relating to socioeconomic development, the environment, disaster management, etc. Data is made available in various ways: 'as is' for proficient geoexperts, as an INSPIRE network service for geoexperts and casual GIS users, as a REST ('*Representational State Transfer', Ed.*) service for mobile and web application IT integrators, and within context-specific applications for policymakers, non-geospatial domain experts and citizens. This has resulted in a toolbox with custom-fitted instruments for different types of users. Specific services for geolocation, places of interest, parcels, elevation and suchlike have been developed on top of authoritative data sources for public reuse within public and private-sector applications and processes. By combining location-based and layer-based information in an intuitive user interface, the user benefits from the possibility to aggregate different data sources to answer everyday life questions: Is there a childcare facility or school close to my work or home? Is this area prone to flooding? Are there any current or scheduled roadworks on my route to work?

What have been the main benefits of INSPIRE so far?

The main benefit of INSPIRE today is the availability of a European regulatory framework for sharing spatial data between public administrations. From day one, the Directive has been a boost and a driver for the sharing of geospatial data. Data that had been locked away for many years has finally found its way to other public administrations, businesses and citizens. In general that has resulted in more efficient and effective public administration processes and policymaking. Some Member States immediately recognised the intrinsic value of spatial data for wider civil society and the economy and they used INSPIRE as leverage for open data programmes. It is good to see that more and more Member States are embracing this good practice and opening up their data beyond the data-sharing scope of INSPIRE.

What are European citizens noticing of these benefits?

We're mainly seeing the first real benefits at local and national level. At European level we will have to wait until the Directive reaches its full potential. A lot of data has been made available, but until that data has been harmonised across Europe – the data harmonisation deadlines are in 2017 for Annex I, and in 2020 for Annexes II and III – the offering lacks the necessary consistency for pan-European applications. DG Environment, as the main public sector client at European level, has identified this as an issue and is preparing a set of actions together with the Member States to build the capacity and capability to deliver on INSPIRE at European level too. The 'Fitness Check on Environmental Monitoring and Reporting' initiative as part of the Commission's 'BETTER REGULATION' package has been selected as a priority use case for implementation.

What are the most important goals still to be achieved for INSPIRE?

Number one on the list of operational targets for INSPIRE implementation is mitigating existing implementation gaps and bringing all Member States to a comparable level of INSPIRE maturity. Knowledge sharing, best practices, reusable components and financing through European funds to build capacity are all instruments that can be used to achieve this objective. Goal number two will be the implementation of the interoperability requirements, especially compliance with the INSPIRE data specifications, as the last phase of INSPIRE implementation. High on the agenda for the Commission is the use of INSPIRE as a spatial information provisioning process for regulatory monitoring and reporting, allowing reporting obligations for the Member States to be streamlined and hence lowering the administrative burden. For EU-level applications, cross-border and cross-sectoral use of spatial information is an important objective in support of the European Commission's Digital Single Market strategy. Supporting the ability for SMEs ('*small and medium-sized enterprises', Ed.*) to move products built around INSPIRE data and services quickly and seamlessly into new markets within the EU will support growth and create jobs.

Is INSPIRE ready for geoinformation crowdsourcing?

Yes, INSPIRE is ready! The Directive and the infrastructure do not impose any limitations on the way data is acquired. I don't see any technical problems either. The eEnvPlus project (http://www.eenvplus.eu) was finished recently which used INSPIRE to implement a wide range of uses cases, including crowdsourcing apps and a web application for decentralised data management. Crowdsourcing is about opening up your data to the public and providing feedback mechanisms for the data to be updated. Whether you are ready for crowdsourcing or not depends on your local or national data policy culture. Some Member States and some administrations have embraced open data while others are keeping the door shut as long as possible and sitting on their data for whatever reason (source of income, trust, data quality, liability…). INSPIRE gives public administrations the opportunity to take the first step towards opening up their data – crowdsourcing might be the next.

Is INSPIRE ready to link with data collected by Galileo or GPS?

Linking with other data is an application-level issue. It is possible to build any mobile or web-positioning application based on GPS/Galileo that uses INSPIRE data as background or thematic layers. And the Sentinel satellites of another EU space flagship programme, Copernicus, are of course also already in orbit. INSPIRE, Copernicus and Galileo complement each other: INSPIRE provides in-situ data for Copernicus and context data for Galileo – road networks and buildings for vehicle navigation, for example; Galileo provides the positioning, geolocation and tracking component; and Copernicus provides timely satellite data and images for monitoring and analysis.

Can INSPIRE and/or governments keep pace with the technical possibilities that are out there?

That's a difficult question and, for governments, the answer depends on other factors such as their attitude to a digital society, their agility, their information culture, etc. Within the INSPIRE community we are well aware of current and possible future challenges. Better alignment of INSPIRE with the EU Digital Agenda and national digital strategies by also adopting de facto technical specifications and standards beyond the geospatial domain (e.g. W3C) should generate a larger community for future maintenance of the infrastructure. Several actions have been initiated under the ISA programme, such as Are3na and EULF to bridge the gap between the geospatial and the digital communities. This will be continued under the new ISA² programme. But ultimately it is clear that you can't keep running after new communication protocols, encoding methods or channels. Nowadays, people like to choose their own channels through which they want to receive information. Some still use web portals, others swear by messaging or mobile platforms. The investment in evolutionary maintenance of infrastructure components can become very high if you want to support all the available options to disseminate your spatial information. We will have to be smart about it. But we have a strong, motivated and very skilled INSPIRE community so I am sure we will find a way.

Biography

Joeri Robbrecht is a policy analyst with the Governance, Information and Reporting unit of the Directorate-General for Environment (DG ENV) of the European Commission. Robbrecht has over a decade of political and technical experience on INSPIRE, both at the national implementation level in Belgium and as a DG ENV Commission official working on INSPIRE and related policy issues. He has been active in the field of geographic information for more than 20 years. He worked at the Agency for Geographical Information Flanders from 1995 until 2015, setting up geospatial business processes ranging from spatial data acquisition and management to spatially enabled end-user applications. In 2011 he was appointed programme manager for the development of the Geographical Data Infrastructure Flanders. One of the deliverables of the GDI programme was Geopunt, the Flemish government's geoportal which was launched in November 2013. In May 2015 he made the transition to the European level. At DG ENV he contributes to the environmental policymaking and evaluation cycle by leveraging the value of geospatial information shared through INSPIRE.