On Thursday, **23 March 2017**, during the 102nd OGC TC meeting in Delft, we are organising an **ad-hoc workshop** titled **INSPIRE – What if…?** [1]. With this call, we are asking for **position papers** for this workshop.

Why this workshop?

INSPIRE implementation is now progressing across the EU, and INSPIRE data, services and principles are being proposed for ensuring interoperability across sectors. At the same time, new digital technologies (smartphones, 5G mobile networks, cloud computing, internet of things, e-platforms …) are transforming the economy and society and are imposing new policy challenges and opportunities. We would therefore like to take a step back and think about what the INSPIRE infrastructure could look like if we had to design it today, integrating new data sources and exploiting new ICT opportunities (with a time horizon for implementation by 2025-2030).

Submission guidelines

Position papers should be no longer than 400 words (roughly 1 page A4) and should describe how to address the challenges and opportunities described above, addressing one or several of the following questions:

- What **standards and technologies** should the infrastructure be based on?
- What **architectural pattern** would you recommend?
- What should be the **main components** of the infrastructure?
- How would you organise the **implementation process** and make it **cost-efficient**?
- How would you ensure a **wide adoption and use** of the infrastructure?

For each of these aspects, please **explain the rationale for your recommendations** (the "why"), especially if they deviate from the current choices made in INSPIRE.

Please send your position papers to michael.lutz@ec.europa.eu by **13 March 2017**.

What next?

Depending on the number of submissions, we will organise the workshop through panel discussions on different topics or as a bar camp session (with several break-out groups).

The position papers will be summarized in a workshop report and published on the INSPIRE web site. The conclusions of the workshop will be used as input for discussions on how the INSPIRE infrastructure could evolve in order to support emerging requirements, increase efficiency and reinforcing its unique potential for cross-border applications. If successful, we will organise a similar workshop at the INSPIRE Conference in Kehl/Strasbourg in September.

---

[1] The title has been inspired by the blog and book of xkcd author Randall Monroe, where he provides "Serious Scientific Answers to Absurd Hypothetical Questions" – see https://what-if.xkcd.com/

About INSPIRE

The **INSPIRE Directive**[2] (which came into force in 2007) aims to create a **European Union spatial data infrastructure** for the purposes of **EU environmental policies and policies or activities which may have an impact on the environment.** This European Spatial Data Infrastructure will enable the sharing of environmental spatial information among **public sector organisations**, facilitate public access to and re-use of spatial information across Europe and assist in policy-making across sectors and borders.

INSPIRE is based on the infrastructures for spatial information established and operated by the Member States of the European Union. The Directive addresses **34 spatial data themes** needed for environmental applications.

INSPIRE is based on a number of common **principles**:

- Data should be collected only once and kept where it can be maintained most effectively.
- It should be possible to combine seamless spatial information from different sources across Europe and share it with many users and applications.
- It should be possible for information collected at one level/scale to be shared with all levels/scales; detailed for thorough investigations, general for strategic purposes.
- Geographic information needed for good governance at all levels should be readily and transparently available.
- Easy to find what geographic information is available, how it can be used to meet a particular need, and under which conditions it can be acquired and used.

INSPIRE is being implemented in various stages, with full **implementation** required by 2021.

This **video**[3] provides an overview of why INSPIRE is needed and what types of spatial are covered by INSPIRE.

Policy background

A significant part of all information used by public authorities and exchanged with the public refers to specific locations. Its quality depends on the availability of 'spatial data', which is collected and linked (geo-referenced) to location, and then processed to derive the information. Most environmental data, such as emission measurements, biodiversity observations, or environmental quality data is of a spatial nature.

Policy-relevant assessments and analyses are often based on a combination of different types of environmental and geographical data, e.g. on land -use, administrative boundaries, elevation, hydrology, transport networks, production facilities, protected sites etc. Geophysical data on meteorology, geology, soils, etc. is also relevant in the environment policy context, as well as socio-economic data, such as population density or data on human health and safety.

The programmes and measures laid down in thematic environmental legislation and policies having an impact on the environment (such as agriculture, transport, energy, spatial development, etc.) generally entail the mitigation of risks arising from societal pressures on the environment or those

---

[2] 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), http://data.europa.eu/eli/dir/2007/2/oj

[3] https://youtu.be/xew6qI-6wNk

related to natural or man-made hazards potentially leading to disasters (with climate change a driving factor).

For example, data on air quality and meteorological conditions, combined with data on transport, the location of industrial, urban and agricultural sources of emission, population and epidemiology is needed to assess the health impacts of air pollution. Such data allows identifying the sources of pollution and calibrate emission reductions targets in policies having an impact on air quality.

Extensive fact-finding and public consultations undertaken in the course of the preparation of the INSPIRE directive (2001-2004), identified a number of important obstacles preventing the widespread use of spatial data needed for environmental policies and policies having an impact on the environment. For example, 97% of the participants in a public consultation agreed that at all levels, from local to European:

1. Spatial data is often missing or incomplete.

2. The description (documentation) of available spatial data is often incomplete.

3. Spatial datasets can often not be combined with other spatial datasets.

4. The systems to find, access and use spatial data often function in isolation only and are not compatible with each other.

5. Cultural, institutional, financial and legal barriers prevent or delay the sharing and re-use of existing spatial data.