



**What if ... INSPIRE would look at the dataflow  
from end-to-end?**

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Interactive instruments

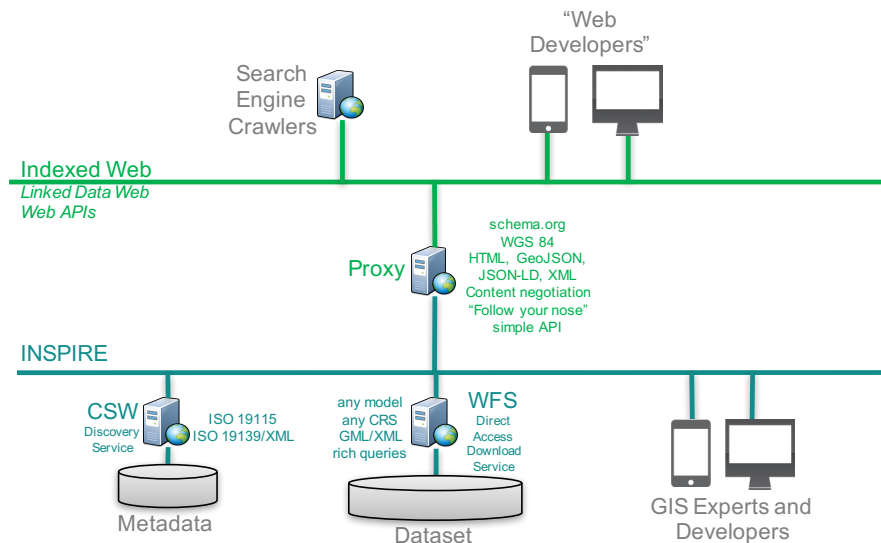
# My position paper in 1<sup>st</sup> “What If...” workshop focussed on architecture and the W3C/OGC Spatial Data on the Web Best Practices

- Presence on the Web of data
  - crawlability and linkability, i.e. make each resource hosted by a WFS available via a persistent URI and ensure that all resources can be reached via links from a “landing page” for the data set
- Harmonisation of data discovery
  - classification of the resources using vocabularies supported by the main search engines on the Web
  - discovery of both spatial and non-spatial data by the same search engine
- Data access based on current Web practices
  - representations of data for consumption by humans (HTML), developers (GeoJSON, GML, JSON-LD) and search engine crawlers (HTML with structured data annotations), accessible via HTTP(S)
  - simple Web API specified/documented using Swagger/OpenAPI
- Connecting data with other data on the Web
  - establishing and maintaining links between data

# Experimenting with the Best Practices on top of the current INSPIRE infrastructure

Key practices implemented in the proxy:

- **Best Practice 1:** Use globally unique persistent HTTP URIs for Spatial Things
- **Best Practice 2:** Make your spatial data indexable by search engines
- **Best Practice 4:** Use spatial data encodings that match your target audience
- **Best Practice 5:** Provide geometries on the Web in a usable way
- **Best Practice 12:** Expose spatial data through 'convenience APIs'



## This time I want to focus on this from a different angle

- Observations:
  - The current INSPIRE architecture implies that GIS experts build a layer of value-added services and tools on top of INSPIRE
  - Data providers express concerns about the required effort to meet the INSPIRE requirements to publish their datasets
- Considering that, why not:
  - Reduce expectations on data providers (that do not have the expertise and capacity to support the full interoperability and service requirements)

## INSPIRE publishes data in two ways



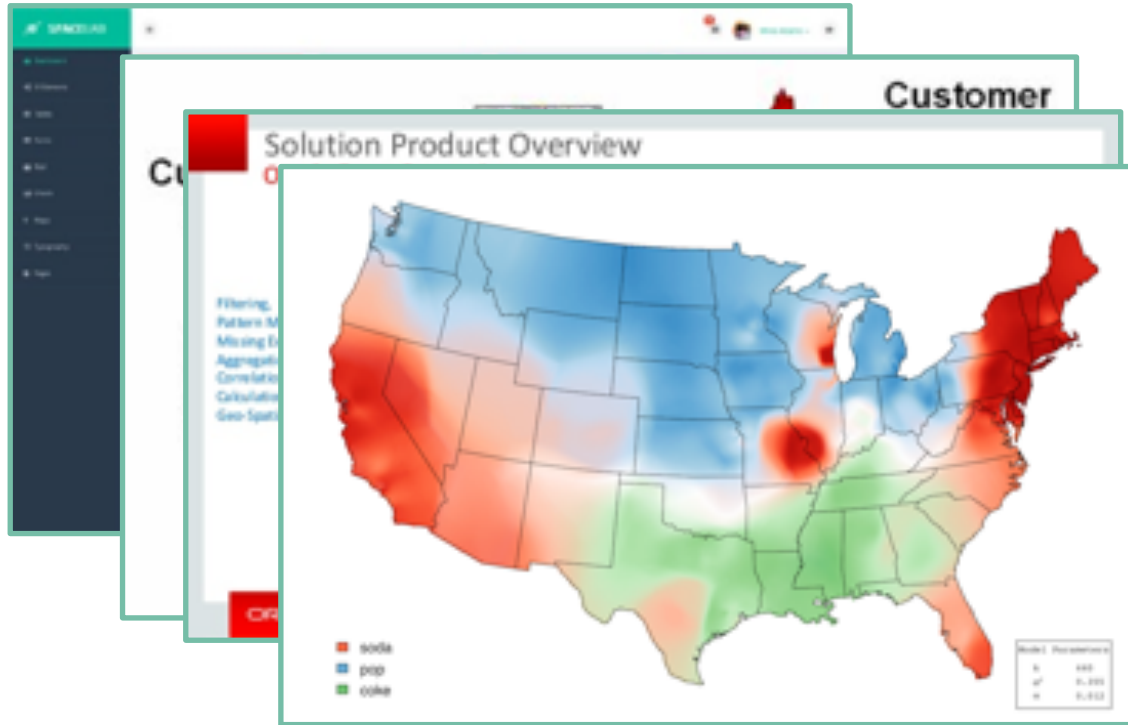
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The data that is published is  
the raw data  
used by domain experts  
for the business processes  
of the publishing organisation

What users are really looking for – this is where value is created



## The Best Practices help to develop such value-added services, but the INSPIRE architecture has limitations with respect to support workflows to create and operate those

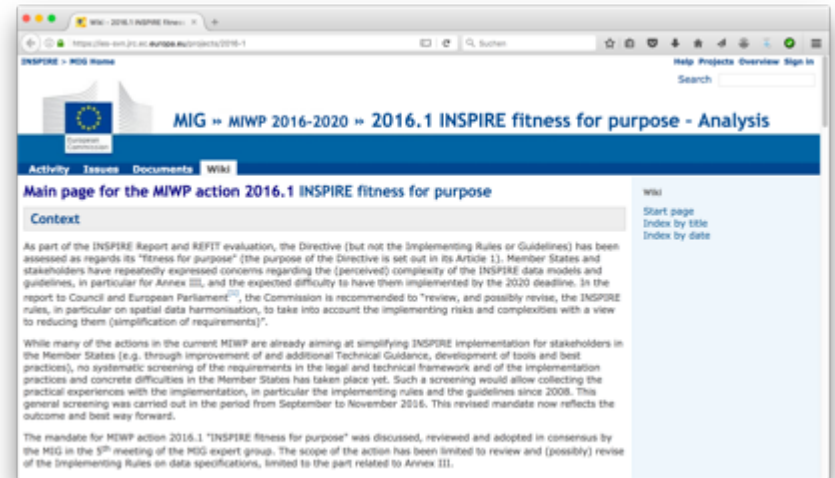
- Typically data needs to be downloaded and processed by the developer of a value-added service or the user of a tool
- No mechanism to learn about or subscribe to changes in a dataset
- Active monitoring required to keep the downloaded data up-to-date
- Level-of-service essential where data would be accessed "live" by a value-added service
- Services in INSPIRE in general do not seem to be on that level (yet)
- Distributed network of services another challenge
- Establish data holdings that cache data from INSPIRE and offer a service level that is sufficient for the targeted applications?
- Would require a mechanism for synchronisation with the source datasets



# Data provider concerns

INSPIRE fitness for purpose activity:

- “Member States and stakeholders have repeatedly expressed concerns regarding the (perceived) complexity of the INSPIRE data models and guidelines [...] and the expected difficulty to have them implemented by the 2020 deadline”.



## Why not accept that datasets may continue to be published using their current schemas, also beyond 2017/2020?

- For open data, it could be discussed how to leverage the community, Member State and Commission efforts to publish that data in accordance with the data specifications
  - Only where there is sufficient user demand

## Reminder: Scope as stated in the Directive

- For Annex III, the Directive only requires the following information:
  - the definition and classification of spatial objects
  - and the way in which those spatial data are geo-referenced

4. Implementing rules referred to in paragraph 1 shall cover the definition and classification of spatial objects relevant to spatial data sets related to the themes listed in Annex I, II or III and the way in which those spatial data are geo-referenced.