

What If?

Sylvain Grellet, Mickaël Beaufils, Katharina Schleidt

▶ **To cite this version:**

Sylvain Grellet, Mickaël Beaufils, Katharina Schleidt. What If?. CONFERENCE INSPIRE 2017, Sep 2017, Strasbourg, France. hal-02096851

HAL Id: hal-02096851
https://brgm.hal.science/hal-02096851

Submitted on 11 Apr 2019

HAL is a multi-disciplinary open access archive for the deposit and dissemination of scientific research documents, whether they are published or not. The documents may come from teaching and research institutions in France or abroad, or from public or private research centers.

L'archive ouverte pluridisciplinaire **HAL**, est destinée au dépôt et à la diffusion de documents scientifiques de niveau recherche, publiés ou non, émanant des établissements d'enseignement et de recherche français ou étrangers, des laboratoires publics ou privés.



what if?

- Position Paper Sylvain Grellet, Mickaël Beaufils (BRGM), Katharina Schleidt (Data Cove)

- What **standards and technologies** should the infrastructure be based on?
    - Don't change the initial approach but complement it. For example, keep the current data models but add the possibility of alternative data exposition (still respecting the definitions voted). This could be via simpleFeature (like GeosciML-Lite and EarthResourceML-Lite) and JSON schemas (ontologies to be discussed?). Both should be defined and accessible via http://inspire.ec.europa.eu/schemas/ and could be defined with the support of the clusters.
      This could also pertain to provision technologies, i.e. utilizing the new SensorThings O&M data model and RESTful service structure.

- What **architectural pattern** would you recommend?
    - Don't change the distributed approach but complement it via putting more support on linking data to increase data reuse.
      Given that the data models (representations) are 'standardardised' in the complexModels (or simplified views, see above) this will allow tools to actually exploit datasets; the standardized data models allow for reuse even when alternative serialization scenarios are adopted.
      Example: very few download flows actually have identifiers (gml:identifier or inspireId) that resolve to an INSPIRE representation (ex: look at the AirQuality Directive Reportings). Indeed this aspect is a 'should' and not a 'shall' in INSPIRE but it's a must have
    - At present there is a great deal of confusion as to which identifier is the true identifier (gml:identifier VS inspireID)[1]. This topic should be closed once and for all.
    - Missing in the current architecture are possibilities for querying the data as required. Standardized stored queries for INSPIRE themes would be useful for the creation of clients that function across various INSPIRE services (i.e. from different MS). In addition, simplified queries such as all possible values for a queryable field would be of great use.

- What should be the **main components** of the infrastructure?
    - Plug-and play download servers especially to provide simpleFeature flows and JSON structures
    - Clients that are able to dynamically consume those flows

[1] http://inspire.ec.europa.eu/implementation-identifiers-using-uris-inspire-%E2%80%93-frequently-asked-questions/59309

- Reusable components for the creation of new clients, i.e. code that parses and provides the complex data models.
- URI resolvers in between are crucial (and yet very little discussed); clear guidance on URI resolution (i.e. xlinks) would be very valuable
- Various helpers should be considered. Example pertains to the Population Distribution theme where massive amounts of data are provided within a single feature; for the creation of a simple client, a tool that allows the client to specify which parts of the feature are actually required (in the PD example data for which classification, i.e. only females) would be very valuable, if this is standardized then more so.

- How would you organise the **implementation process** and make it **cost-efficient**?
  - Software compliancy is not achieved:
    There is a need to help MemberStates or communities find reusable solutions and share IT experience
    As for software use and enhancement (esp in OpenSource)
    - Share documentation, cookbooks and tutorials,
    - Share known bugs and hopefully finance some bug fixing,
    - Explore approaches towards some sort of abstracted crowd-funding scheme
  - Define an 'INSPIRE compliant' labelling scheme: with sub parts like 'discovery', 'view', 'download-theme xx' that will help clarify software commercial discourses on INSPIRE. eg: 'our software tool is fully INSPIRE compliant' ok, but on what part of the beast ?
  - Engage more with the OGC community. This session is a good start. INSPIRE implementation revolves mainly around OGC standards. So why so few INSPIRE related topics (services, dataspecs, testing) make their way to the OGC agora? Why not having a part dedicated to supporting INSPIRE deployment in each testbed (granularity to be defined between INSPIRE as a whole or a dedicated community making use of it)?

- How would you ensure a **wide adoption and use** of the infrastructure?
  - Cluster are a good idea but making slow progress : there is an important need for more technical support across cluster-topics,
  - Help communities to be more engaged: for example allow them to set up their own controlled vocabularies extensions (instead of forcing to go through national contact points)
  - Capacity building
    - Many INSPIRE labelled trainings are focusing only on discovery/view aspects of INSPIRE. Core (and hardcore work) is in the data structure aspect (download).
    - INSPIRE conferences attract totally different people profiles. Setting up hackathons on INSPIRE compliant services/data could help: share IT knowledge, train people, and make non-technical people understand how all this work (+ the underlying possibilities).
      A solution could be: INSPIRE conference kick-off (beginning of the hackathon, present topics, data flows) and results of the hackathon (with prizes) at the end of the conference. Countries, companies, SMEs, open-

source communities that are willing to show off their capacities will engage in this for sure.

- EU level
  - Speed up the EU reportings conversion to INSPIRE compliancy and have the models done discussed, validated with INSPIRE experts/clusters, …
  - Very few H2020 calls do mention INSPIRE or interoperability; that does not help
  - Try and break the chicken/egg cycle of no data, thus no applications, thus no data. If EU institutions would start providing data based on INSPIRE, applications would follow, thus creating pressure on the MS to provide their own more exact data.
- Demonstrations of the enhancements offered by INSPIRE implementation
  - Comparison before / now
  - Steps followed to get it