

## **Scribe / Notes**

### **Location Track „INSPIRE in RDF“**

**Facilitator: Andrea Perego, JRC**

**Scribe: Athina Trakas, OGC**

**Additional notes from: Stijn Goedertier, PwC**

Andrea Perego welcomes people, session is an interactive one for those interested in re-using spatial data and even interesting for those not working with INSPIRE.

#### **Participants:**

Athina Trakas, OGC

Andrea Perego, European Commission

Arnulf Christl, Metaspatial

Jules Clement, Land Portal

Valentina Janev, The Mihajlo Pupin Institute

Ales Veršič, Ministry of Public Administration, Slovenia

András Micsik, SZTAKI

David Portoles, Idearium Consultores

Michael Gordon, Ordnance Survey

Udo Einspanier, Conterra

Herbert Schentz, Environment Agency Austria

Phil Archer, W3C

Jindřich Mynarz, University of Economics, Prague

Bart van Leeuwen, Netage

Daniele Rizzi, European Coammission

Peter Winstanley, Scottish Government

Stijn Goedertier, PwC

Bernhard Krabina, Centre for Public Administration Research, Austria (KDZ)

#### **AGENDA – slide 1:**

1. Round table and introductions to the topic
2. Short presentation of INSPIRE
3. Break-out groups and discussion on potential pilots
4. Conclusion

#### **1. Round table and short intro why this session is of interest for participants**

Athina Trakas, OGC, refers to the standardisation work of the OGC and the recent joint OGC/W3C working group working on combined standards for Spatial Data on the Web (<http://www.opengeospatial.org/projects/groups/sdwwg> and [https://www.w3.org/2015/spatial/wiki/Main\\_Page](https://www.w3.org/2015/spatial/wiki/Main_Page)).

Arnulf Christl, metaspatial, interested to see how INSPIRE can profit from supporting RDF / Linked Data. The objective should be to make all resources (especially geospatial data) available in all possible representations and focus less on interfaces.

Jules Clement, new in geo comes, from Landportal, Linked Data knowledge.

Stijn Goedertier, PwC, did a pilot with Andrea Perego on Core Location Vocabulary, hopes

to identify additional useful pilots.

Valentina Janev, The Mihajlo Pupin Institute  
Works on GeoKnow (EU project) <http://geoknow.eu/Project.html>

Ales Veršič, Ministry of Public Administration, Slovenia did a project on mobile data and statistics, knows INSPIRE, GIS expert, now open data, not RDF specialist, knows about data management.

Bernhard Krabina, Centre for Public Administration Research, Austria (KDZ).  
The most difficult is to reach consensus and make it lead to a common use. This is the value of INSPIRE.

András Micsik, SZTAKI, is interested in geospatial data and indoor navigation, has only worked on the topic very high level (coordinates, points).

David Portoles, Idearium Consultores, develop projects mainly in geospatial fields, but also in Linked Data, work mainly for public administration, sets up INSPIRE spatial data services.

Michael Gordon, Ordnance Survey, involved in implementing INSPIRE for the Ordnance Survey, manages most of the OS Linked Data services

→ Q: Which sectors use OS data?

→ A: it's probably easier to mentioned those sectors NOT using our data

Udo Einspanier, Conterra, SDI interested, INSPIRE, worked in OGC services for many years, recently working on Linked Data, involved in Europeandataportal.eu

Herbert Schentz (?), EEA Austria, participated in long term ecological, geo soil project, has understanding of schemas, biggest challenge is to reach consensus, points out that OGC and W3C standards unfortunately do not match up so far and hopes the Spatial Data on the Web WG helps to a certain extend.

Phil Archer reports on the SDW working group, trying to match the geospatial world and the web world, additionally there is the LDW (Linked Data on the Web) working group that will produce linked data on the Web best practices document, Smart open data project:

<http://www.smartopendata.eu/> → experience with INSPIRE in RDF

"If you want to do linked data, then think #LinkedData"... keep the data simple and do not overload. → for example the GeoNames theme of INSPIRE in smartopendata.eu is just rdfs:label.

Jindřich Mynarz, University of Economics, Prague

For regular developers, geospatial standards almost feels as alien as RDF. So this working group has many challenges. JSON-LD

Bart van Leeuwen, Netage

Netage helps interchanging data in crisis situations, helps firemen make better use of location data when dealing with emergencies. First responders don't really come from an RDF/LinkedData environment, interest in relations between things, is member in the Spatial Data on the Web and working on a best practices

Daniele Rizzi, European Commission

Has done a lot of work on INSPIRE when working at EuroStat.

## 2. Short presentation of INSPIRE

Andrea Perego presents the INSPIRE themes and the existing work on INSPIRE Linked Data (methodologies).

→ slide on the INSPIRE thematic scope (Annex 1, 2, 3)

Slide: Break-out groups – Topics are: (i) INSPIRE as LD, (ii) LD demands & benefits and (iii) Applications

## 3. Discussion after break-out groups and on potential pilots

Arnulf Christl: the linking aspect of address data is very obvious. What is needed is a reliable link (in RDF). Users do not want to maintain the geographic part of the data (coordinates) and should leave this to the experts, we don't need a different format, but need to link to the geospatial part of the data.

Herbert Schentz: I want to have a reliable URI link for addresses, and administrative units. You need a good history and versioning: if a building is destroyed, the new building may have the same address notation.

The temporal dimension is very important... slowly changing dimension.

Bart Van Leeuwen: the best source of address data is OpenStreetMaps, the cadastre (in the NL) should RDFize its address data.

Andrea Perego: would it be a good idea to work together with OpenStreetMaps? And what needs to be linked? Core location /address data – example in Belgium with addresses and transport networks, not all of those could be matched (due to a short timeframe), maybe we need to add new elements.

Jindřich Mynarz: Proposes to have resolvable persistent URIs for coordinate reference systems. Most important thing is the Coordinate Reference Systems (CRS), order of the axis. Question is: how can we understand the CRS

Arnulf Christl: This already exists, see: <http://spatialreference.org>

Andrea Perego: see also <http://epsg.io>

Athina Trakas refers to the Location Track at the first day of the workshop.

Jindřich Mynarz: what we need for the public sector is to provide address lookup service, similar to the Google address lookup: <http://ctrlq.org/maps/address/>

Andrea Perego: there is also the openaddresses project <http://openaddresses.io/> >>

TODO: ask Tom Heath how it is used

Valentina Janev: The Geoknow.eu project had one basic use case: we want to know who is visiting a tourist portal (based on IP address for where they come from and where do they want to go based on their booking, kind of reservation, transport used or lookup). Second use case: supply chain use case: linking of data, meteorological data, stations from where the data is coming, people on the road who is delivering something, link news, twitter, we are crossing the geospatial data, time dimension and statistical data (with code lists) etc.

Phil Archer: The smartopendata.eu project was among others working on a RDFising the

European Tourist Information System (Excel spreadsheet for tourist operators)... it does not make any reference to any other data. INSPIRE data could have been helpful there (Martin). Another would be a Czech project on forestry.

General question: is navigation somehow touched at this point?

Andrea Perego: transport networks, rails, water etc, works, question is if you want real-time information.

Phil Archer: what about polygons

???: join the Linked Data with geospatial data → addresses are the main topic

Arnulf Christl: be careful not to mix up technology issues and licensing / administration topics, as long as we have restrictive licenses we have the issue of lacking accessibility, no matter in which format it is provided.

???: says that geocoding is difficult

Arnulf Christl: This HAS to be provided by the government, once you have them, you can make them available in what ever format

Andrea Perego, summarizing the break-out sessions: it seems that addresses-topic is central and important, geometries and administrative units, geographical names etc., INSPIRE, data sometimes is not enough, adding OSM, some aspects are public administration topics, others (twitter) are not.

What about the last topic on the slides: „Application“

???: EEA app, use case at the Semantic Conference (SEMIC) this year, combines GeoNames etc.

Andrea Perego: mentions openaddresses.org? EuropeanDataPortal is based on what is available to INSPIRE and then added with geonames

Phil Archer: geographical names are simplified when they are RDF-labeled.

Andrea Perego: how to use geographical names to a dataset if you want to draw a bounding box?

Athina Trakas: this is where we stopped yesterday (at the other Location Track sessions)

Stijn: use cases: property tax etc. there are many out there...

Phil Archer: WxS services are easy to find, but the content is not that easy to find. One thing the group (SDWWG) is looking at, is how to make the content of the services findable (what is in the services), take a WFS and create a webpage from it.

Bart van Leeuwen: mentions Geonovum testbed, exposing WFS data as RDF, for further information please contact Linda van den Brink (Geonovum).

Valentina Janev: intention in Geonow is turn back information in the business registers, we will adopt the technology in the statistical office, to publish statistical data, in Geoknow we bring back these tools to the public administration.

Andrea Perego: who is interested participating in the pilot?

Michael Gordon: OS might be interested in participating in the Pilot