Georef – Linked Data Deployment for Spatial Data; Finnish Initiative

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Key words: Capacity building; Cartography; e-Governance; Geoinformation/GI; GSDI; Reference frames; Reference systems; Spatial planning; Urban renewal; linked data; semantics; ontology; web; linked data cloud; RDF, thesaurus, SDI

SUMMARY

'Georef' is an initiative for a service and application development platform that employs httpURIs of place names for geocoding different data assets to enable and improve data combinations of spatial data and any other data. It is an effort in co-operation of several national research institutes, the national thesaurus and ontology service (finto.fi), memory organizations, universities, large cities, private companies and YLE, the national broadcasting company as well as private sector.

The scope of Georef is including versatile application areas, but not limited to, like re-use of scientific and research data across disciplines, re-use in media (local-national), public and personalized services (health, education, professional training, immigrants…) as well as commercial services. Especially it enables to link spatial data with all Finnish publications through finto.fi.

As for societal aspects Georef facilitates inclusion of community members in municipal decision making by providing sufficient information base. Crowdsourcing is envisioned for updating current and historical contents related to places and areas to provide and create novel viewpoints and information in land and city development (citizen science). In short, it is about geocoding by place names, which makes local to global.

Place names can be used for bridging different information and data assets as, well known, a lot or even most of information carry place names but most information do not carry direct location data. This applies to data assets of any format: scientific research reports, different types of documents; factual and fiction, textual, images, photos, movies, music etc. To link or combine spatial data with these other data types, first we need place names bound to coordinates. But place names are tricky too: many places have the same names (Paris, Texas), there are endonymes, eksonymes and

different conjugations in different languages etc. To be deployable, secondly, they need unique identifiers i.e. httpURIs. To be live links for data the simplest solution is to implement a RDF database which enables search by SPARQL as well as transformations to different popular formats like GeoJSON and other.

To combine spatial data with all other data is to boost and verify the mighty potential of spatial data and to release the hidden and dead capital of information resources since spatial data has capability to add value when combining data, to make visible phenomena and reasons behind them and to visualize and verify processes of long term. Place names are fundamental reference data also in INSPIRE and globally other place name sources such as Open Street map can be employed.