Using Linked Data Concepts to Blend and Analyze Geospatial and Statistical Data

The use of Linked Data concepts has become increasingly important in Europe and beyond, especially in the context of open data projects, but also in eGovernment projects in general. Initiatives are underway to develop implementation guidelines for INSPIRE or an interface ontology for the UN Sustainable Development Goals, for example. The main reason for the popularity of this approach is that it makes data more easily consumable by providing context with each piece of information in a standardized way. This addresses the requirement to deliver semantic interoperability besides simple technical interoperability and thus enables the conflation of data from diverse sources as well as deriving new knowledge by means of reasoning, providing a basis for artificial intelligence.

This session aims to provide the fundamentals of Linked Data in conjunction with geospatial information such as administrative boundaries and other location data. We will show the general project flow for publishing data as Linked Data, using two projects involving statistics agencies from different countries to illustrate the methodology as well as the main challenges and benefits. In both cases, the objective was to develop a scalable Linked Data platform that could seamlessly integrate geospatial data, using the relevant W3C standards such as RDF, OWL and the query language SPARQL with its GeoSPARQL extension.