Line of Work DATA INTEGRATION
WEBINAR #3 CONCEPT NOTE

7 November 2023, 13:00 – 14:30 (CET)

WEBINAR COORDINATORS
UN-GGIM:Europe Working Group on Data Integration

PARTICIPATING PARTIES

EUROPEAN FORUM FOR GEOGRAPHY AND STATISTICS

An Phríomh-Oifig Staidrimh — Central Statistics Office

NLS NATIONAL LAND SURVEY OF FINLAND

kadaster

WEBINAR TITLE
Linked Data in the European spatial data infrastructure – an operational view

INTRODUCTION

The UN-GGIM Europe Working Group on Data Integration has analysed current and future trends in geospatial data integration. Examples of best practices have been collected and data integration methods that are especially relevant in a European context have been identified. With the latest developments and use cases in the geospatial domain, these principles of data integration support common data spaces, a single digital market, artificial intelligence (AI) and a geospatial knowledge infrastructure (GKI). A fundament for the establishment of a geospatial knowledge infrastructure, which could be understood as a set of spatial knowledge graphs, are the methods of linked data, which add to the existence of fundamental geospatial data themes on the Web.

By observing actual developments of AI and the creation of common data spaces one main question occurs: how far are the methods of linked data from an operational implementation?
Are these concepts productive in the geospatial domain?
What are the experiences, observed pitfalls and feasible approaches that are missing?

In this webinar, three selected examples will highlight an operational view of linked data as well as the indexing and standardizing of linked data in a common data space. Main experiences will be shared and pitfalls discussed.

OBJECTIVES

- Provide an up-to-date overview of the application and perspectives of linked data.
- Provide a forum for discussion on key challenges of a real-time linked data space as source for a geospatial knowledge infrastructure.
- Encourage opportunities for future cooperation and joint work.

AGENDA

- Welcome, introduction and setting the scene (Pier-Giorgio Zaccheddu, BKG, Chair of the UN-GGIM Europe Line of Work 'Data Integration') [5']

- Preparing data integration and the common data spaces using OGC API's [Jari Reini, NLS and ISO subgroup on data spaces] [15']
  This presentation reveals the use of open standards with RESTful principles to deliver data for common European data spaces.

- Enabling data linkage on pseudonymised address data [Justin McGurk, CSO Ireland and EFGS] [15']
  Using persistent identifiers and supporting data linkages are main requirements for common data spaces. This talk highlights experiences with establishing linked data and spatial analysis even with protected identifiers and pseudonymised georeferences.

- A pragmatic example for Linked Data: the Kadaster Knowledge Graph [Alexandra Rowland, Kadaster NL] [15']
  A rich collection and increasing availability of fundamental geospatial data themes lead to enhanced linking of the semantics as well as data down to the feature level across data spaces and therefore creates a geospatial knowledge infrastructure. This presentation shares experiences and highlights the most important methods by example of the Kadaster Knowledge Graph.

- Q&A (….team) [30']

- Conclusion and path forward (Markus Jobst, BEV, Chair of the UN-GGIM Europe Line of Work 'Data Integration') [5']

SPEAKERS

Jari REINI
Development Manager at NLS Finland, Technical Advisor at Climatrix.earth
Jari Reini is involved in the technical development and standardization of SDI and geospatial knowledge infrastructures for more than 20 years. He is leading an ISO/TC211 and OGC subgroup to explore requirements for spatial data and -interfaces in common data spaces. On main project of Jari is the platform Oskari (https://www.oskari.org/), a framework for easily building multipurpose web mapping applications by utilizing distributed Spatial Data Infrastructures like INSPIRE.

Justin McGURK
Justin is Assistant Principal at CSO (Central Statistics Office Ireland)
He is a GIS professional with over fifteen years of experience working with spatial data and networks **with particular emphasis on applications in transport, land information, and utilities**. This experience in working in various industries in both client facing and technical

roles provides him with a **wide range of perspective and insight to bring to analysis and solutions of the relevant issues**.

Alexandra (Lexi) ROWLAND
Researcher in the Data Science Team at Kadaster
Lexi Rowland is an experienced **Linked Data and Semantic Web specialist**, especially focused on **improving the interoperability** and accessibility of (geospatial) information using this technology.
Lexi has been working on designing innovative solutions to improve the interoperability and management of (meta)data within the context of the **'Data Platform of the Future'**.

WEB LINKS TO CONSIDER

Best Practices for Publishing Linked Data https://www.w3.org/TR/ld-bp/
NL Kataster Knowledge Graph https://data.labs.kadaster.nl/dst/kkg
and https://labs.kadaster.nl/thema/Knowledge_graph
Trustworthy Artificial Intelligence https://commission.europa.eu/strategy-and-policy/priorities-2019-2024/europe-fit-digital-age/excellence-and-trust-artificial-intelligence_en
Real-time linked data spaces https://dataspaces.info/common-european-data-spaces/
SEMIC definition of data space https://joinup.ec.europa.eu/collection/semic-support-centre/data-spaces
International Dataspace Association https://internationaldataspaces.org/
Our common data space EU https://ourcommondataspace.eu/
Europeana Linked Data Taskforce https://pro.europeana.eu/project/linked-data-task-force
List of ontologies https://www.w3.org/wiki/Lists_of_ontologies

European Forum for Geography and Statistics (EFGS)
GSGF Europe
UN-GGIM Europe – Working Group on Data integration