Uptake of Open Geographic Information Through Innovative Services Based on Linked Data

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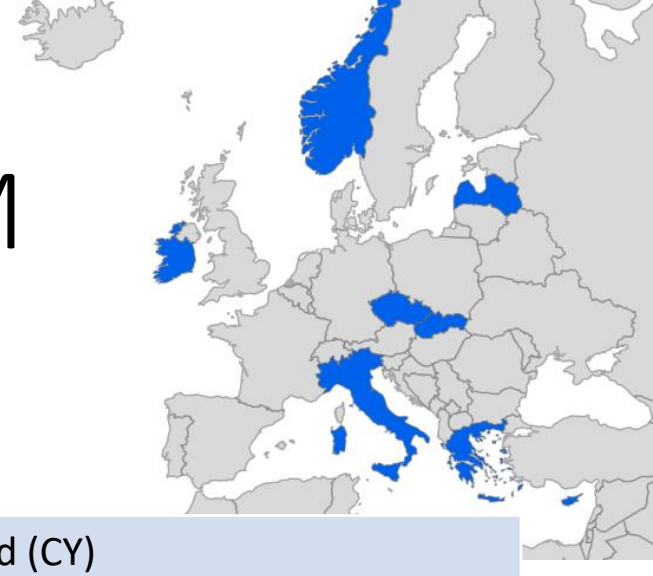
QUICK FACTS

Project title	**Uptake of Open Geographic Information Through Innovative Services Based on Linked Data**
Short title	SDI4Apps
Ref. number	621129
Funded under	Competitiveness and Innovation Framework Programme - The Information and Communication Technologies - Policy Support Programme (CIP-ICT-PSP-2013-7)
Objective	2.2a Open Data experimentation and innovation building on geographic information
Total budget	4,070 Mil. EUR (2,035 Mil. EUR co-funded by the EU)
Duration	April 2014 – March 2017
Coordinator	University of West Bohemia, Czech Republic
Website	http://sdi4apps.eu/

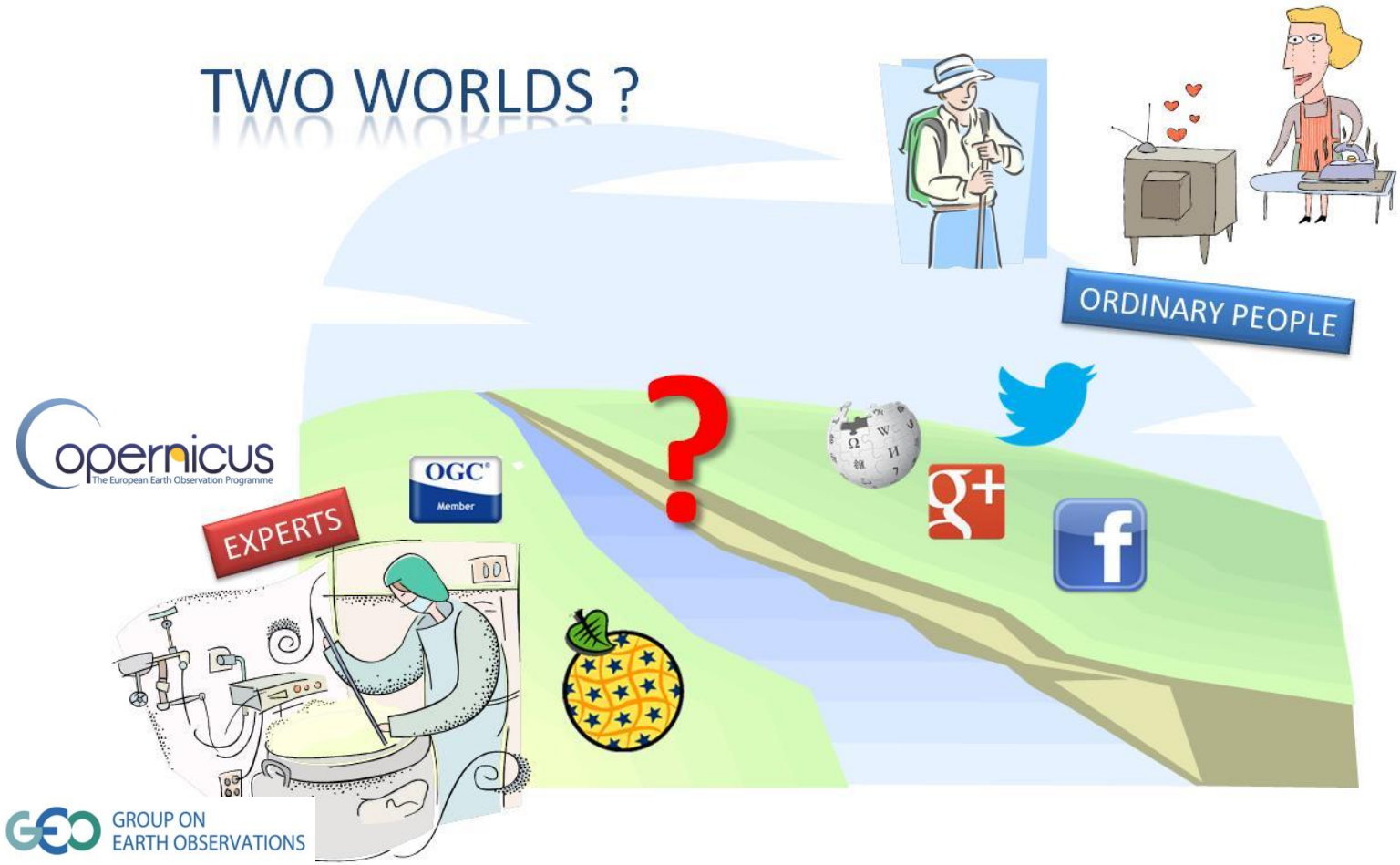
SDI4APPS CONSORTIUM



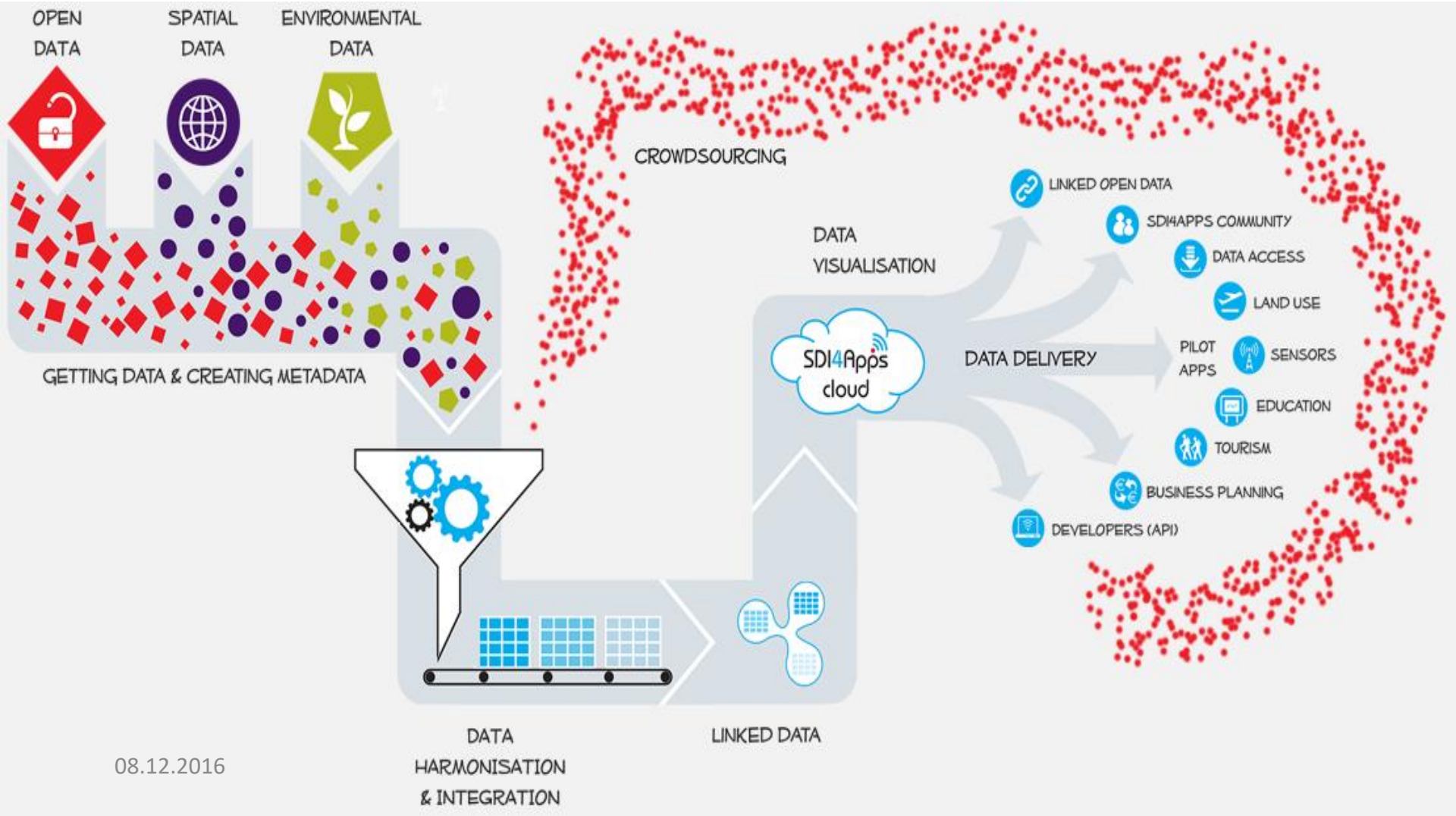
18 partners
8 European Countries

Asplan Viak Internet as (NO)	RTD Talos Limited (CY)
Baltic Open Solutions Center (LV)	Scuola Superiore Sant'Anna (IT)
Czech Centre for Science and Society (CZ)	Slovak Environmental Agency (SK)
e-Pro Group as (SK)	Strategie Strutturali di Antonio Paterno' & c. sas (IT)
European Regional Framework for Co-operation (GR)	The National Microelectronics Applications Centre Ltd (IE)
Help Service Remote Sensing s.r.o. (CZ)	Uhlava (CZ)
Hyperborea S.r.l. (IT)	University of West Bohemia in Pilsen (CZ)
Masaryk University (CZ)	Vidzeme Planning Region (LV)
Pronatur (SK)	Zemgale Planning Region (LV)

WHAT'S THE PROBLEM?



GENERAL IDEA OF SDI4APPS



FOODIE

LINDA PROJECT
LINKED DATA

GeoSmartCity

SmartOpenData

Open Transport Net

APPS FOR EUROPE

PLAN4BUSINESS
A service platform for aggregation, processing and analysis of urban and regional planning data

SME/SPIRE

HLanData
HARMONIZATION OF EUROPEAN LAND USE AND LAND COVER DATABASES FOR THE CREATION OF VALUE ADDED SERVICES

habitats

Plan 4 all
www.plan4all.eu

enviroGRIDS

HUMBOLDT
www.esdi-humboldt.eu

BRISEIDE

SDI EDU

SDI4APPS SOLUTION

A cloud platform for open data sharing through various interfaces including testing its viability through 6 pilots:

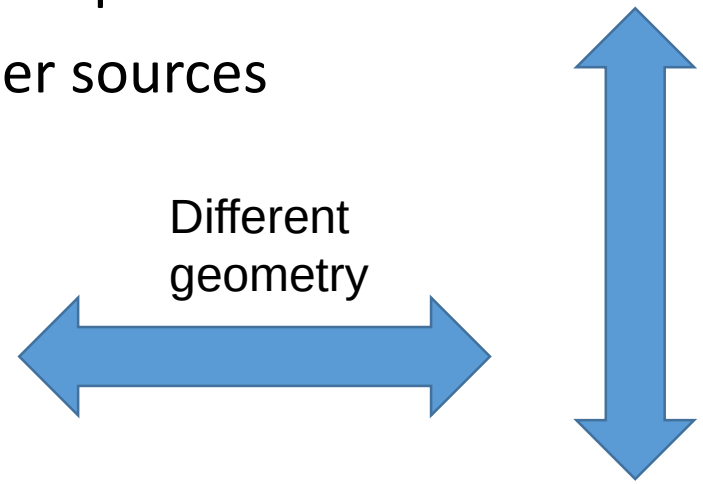
- PILOT I: Easy Data Access
- PILOT II: Open Smart Tourist Data
- PILOT III: Open Sensor Network
- PILOT IV: Open Land Use Map Through VGI
- PILOT V: Open INSPIRE4Youth
- PILOT VI: Ecosystem Services Evaluation

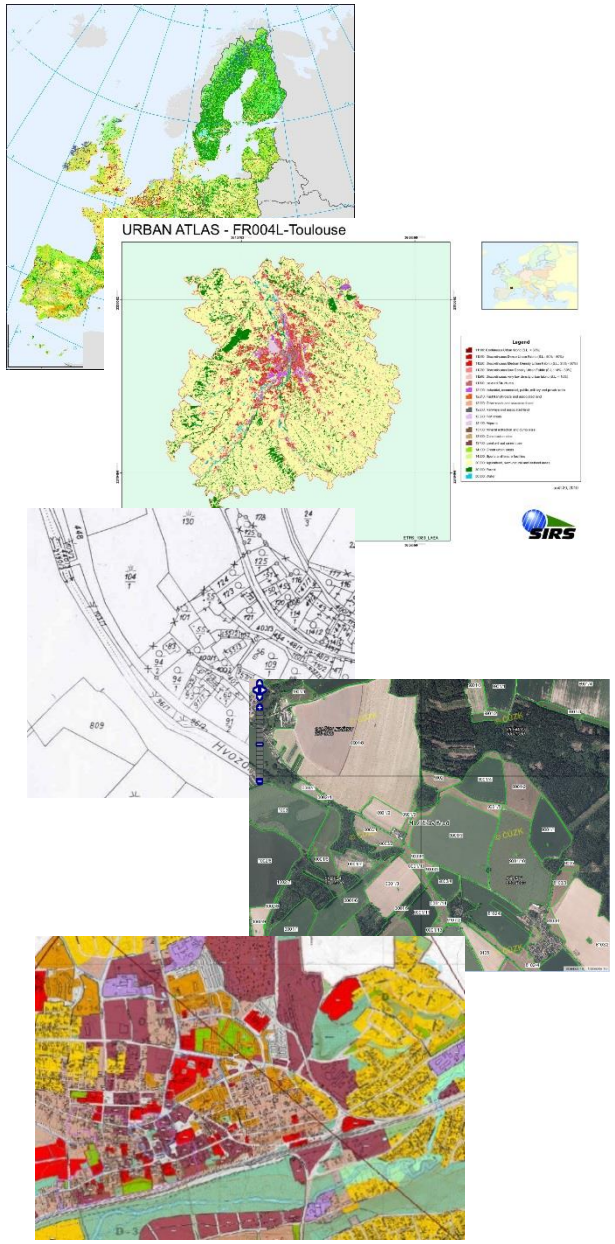
Open Land Use Map (OLU)

- Harmonisation and integration of heterogeneous land use and land cover data
- Reusing the INSPIRE land use data specifications → transformation into a common INSPIRE compliant data model
- Mapping different classifications → HILUCS
- Uniform visualisation
- Using RDF model – in preparation

Open Land Use Map

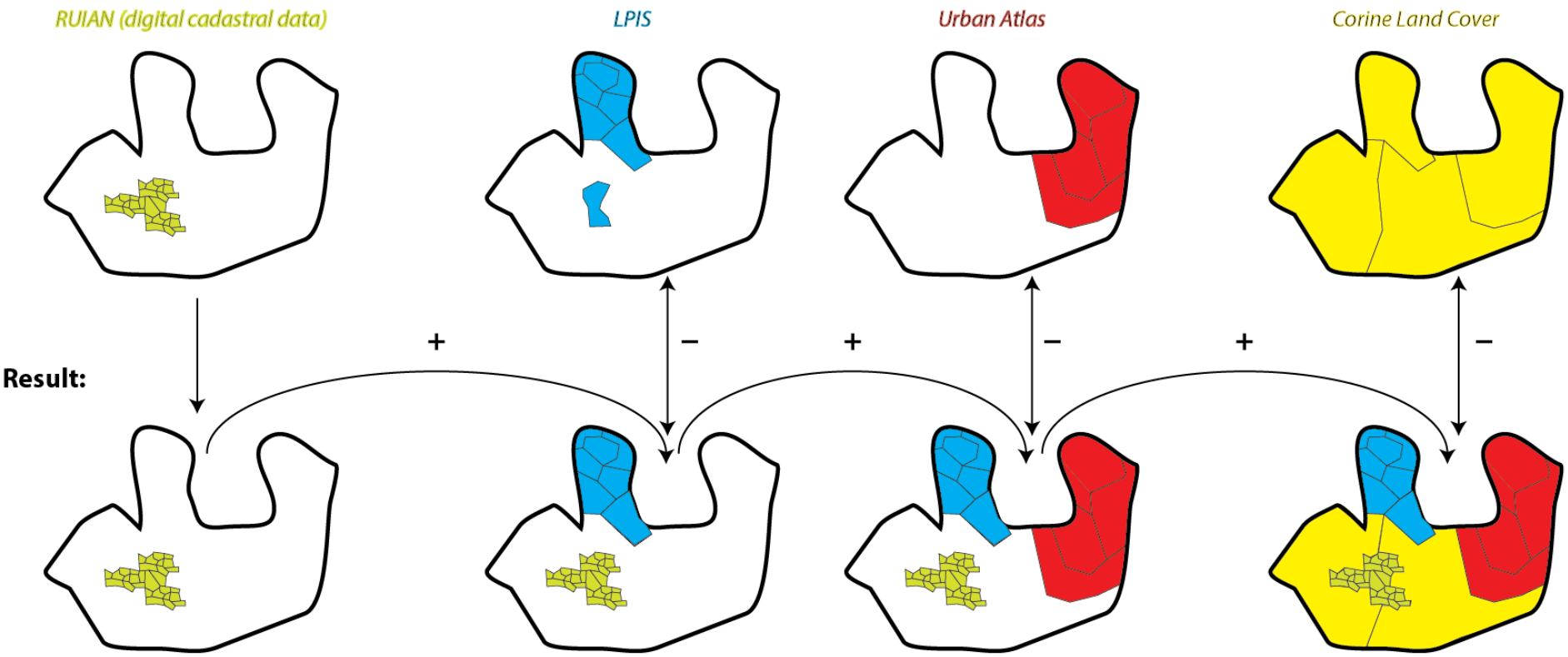
- Corine Land Cover 2006
- Urban Atlas
- Cadastral data
- Land Parcel Identification System – LPIS
- Spatial plans
- Other sources





Methodology of data integration

Sources of Data:



Mapping different classifications

Urban Atlas → HILUCS

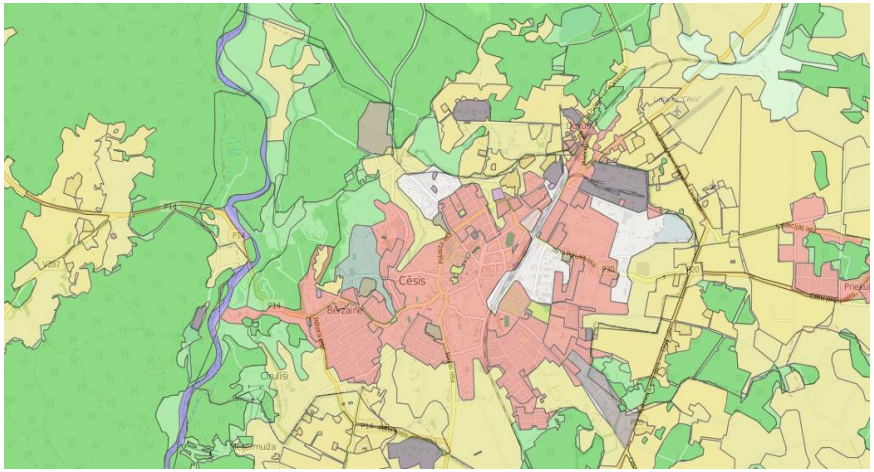
Code		HILUCS
11100	Continuous Urban Fabric (S.L. > 80%)	500
11200	Discontinuous Dense Urban Fabric (S.L. : 50% - 80%)	500
11210	Discontinuous Medium Density Urban Fabric (S.L. : 30% - 50%)	500
11220	Discontinuous Low Density Urban Fabric (S.L. : 10% - 30%)	500
11230	Discontinuous Very Low Density Urban Fabric (S.L. < 10%)	500
11240	Isolated Structures	500
11300	Industrial, commercial, public, military and private units	500
12100	Fast transit roads and associated land	300
12200	Other roads and associated land	410
12210	Railways and associated land	411
12220	Port areas	411
12230	Airports	412
12300	Mineral extraction and dump sites	414
12400	Construction sites	413
13100	Land without current use	130
13300	Green urban areas	600
13400	Sports and leisure facilities	600
14100	Agricultural + Semi-natural areas + Wetlands	344
14200	Forests	340
20000	Water bodies	660
30000		120
50000		660

Existing Open Land Use Maps

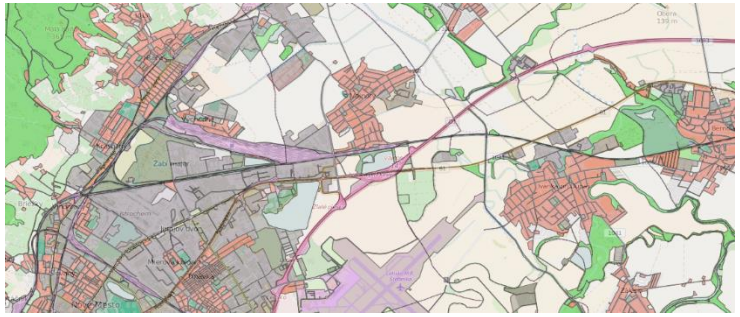
Czech Republic

Flanders

Latvia

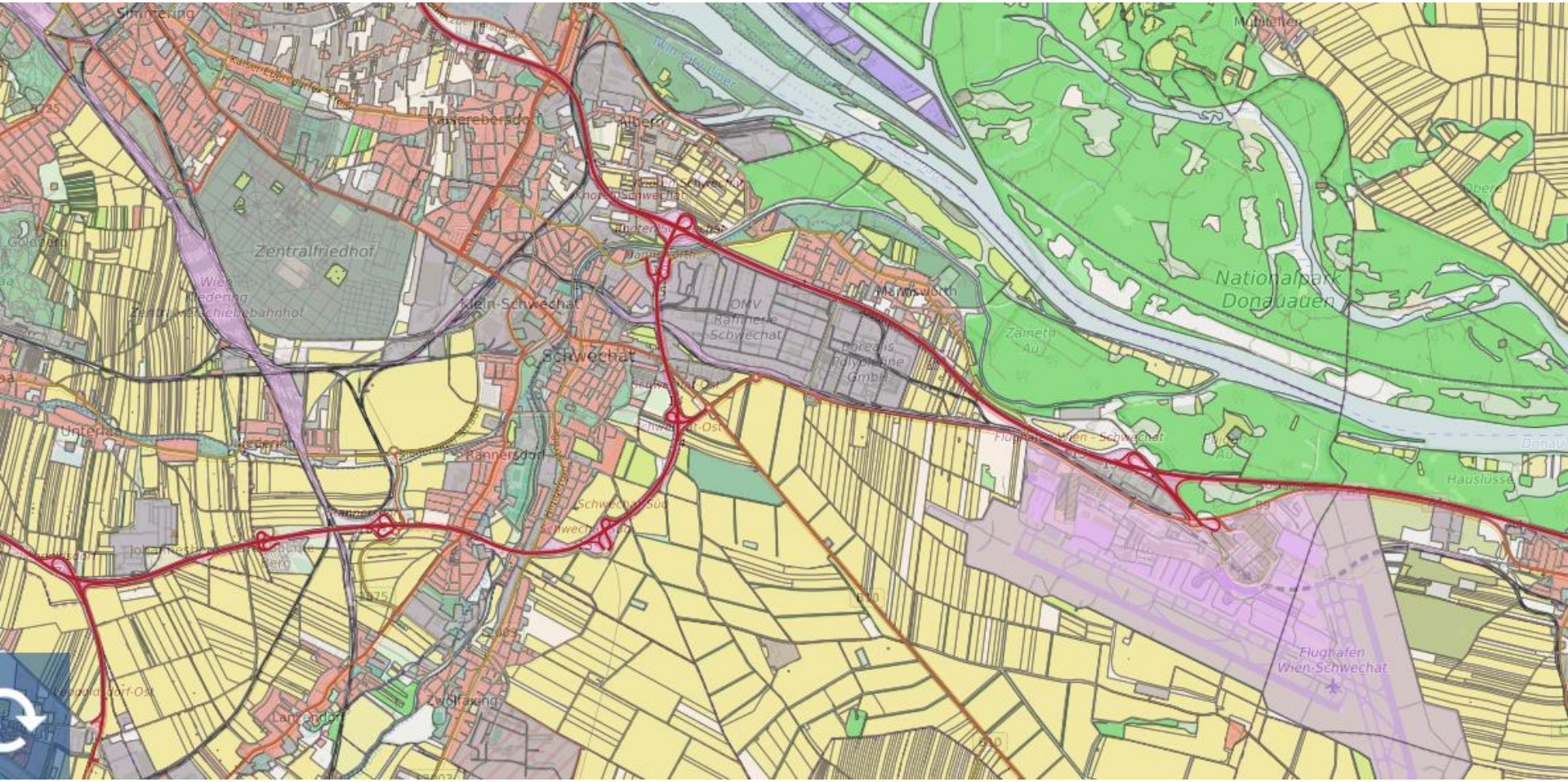


Slovakia



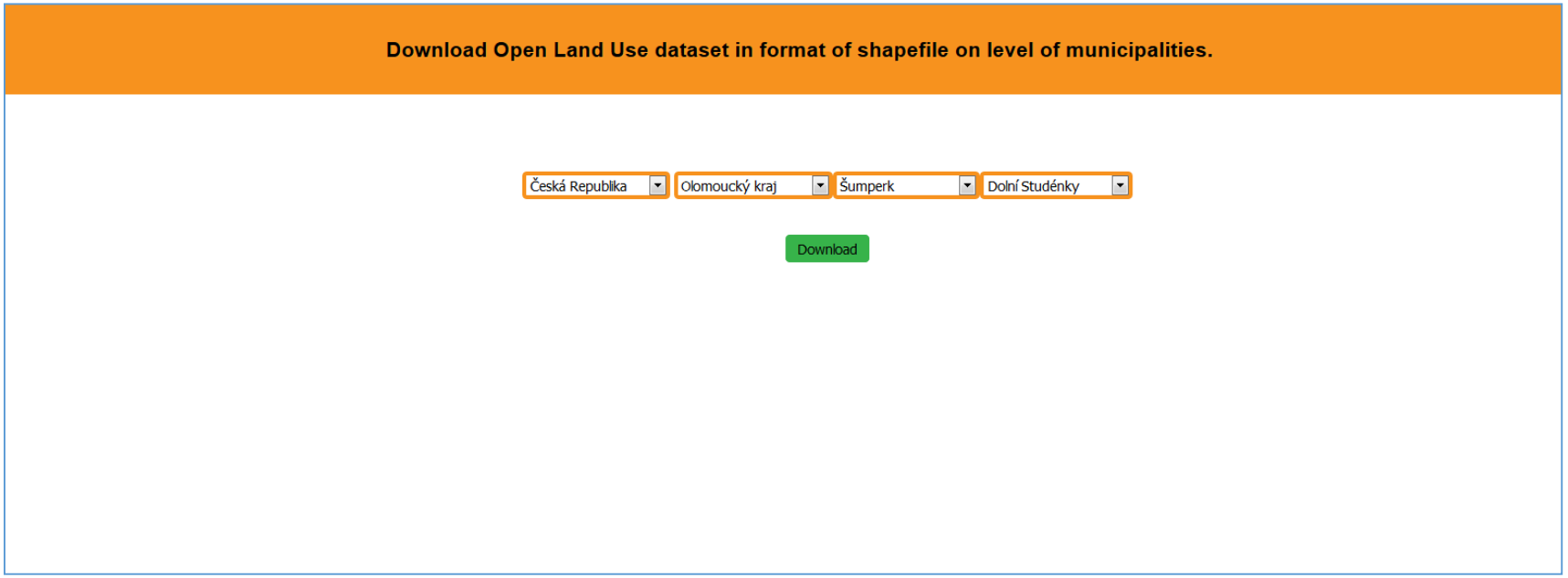
Existing Open Land Use Maps

Austria (in cooperation with Danube Reference Data and Services Infrastructure)



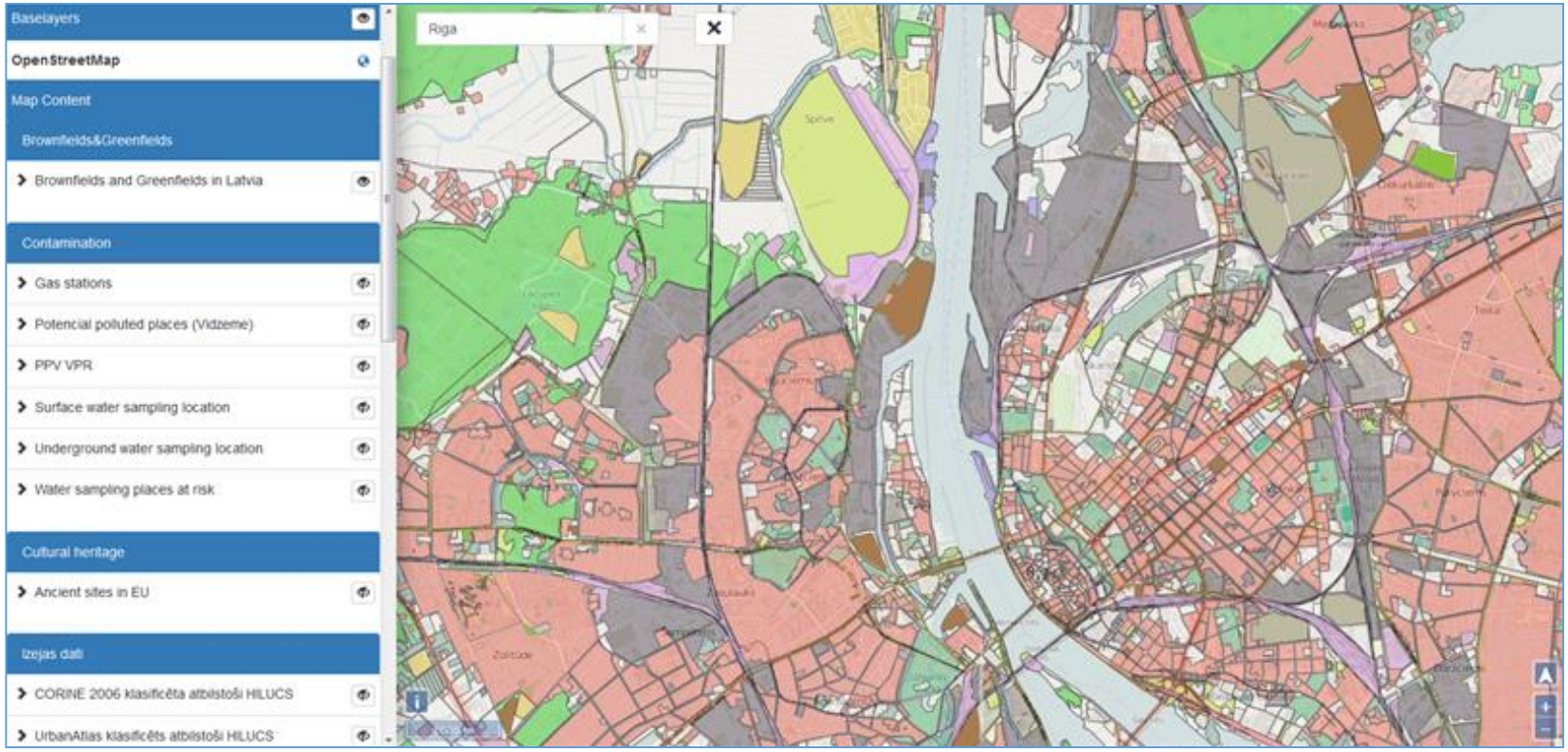
Data access

- OGC services – WMS, WFS
- Data download in Shapefile format



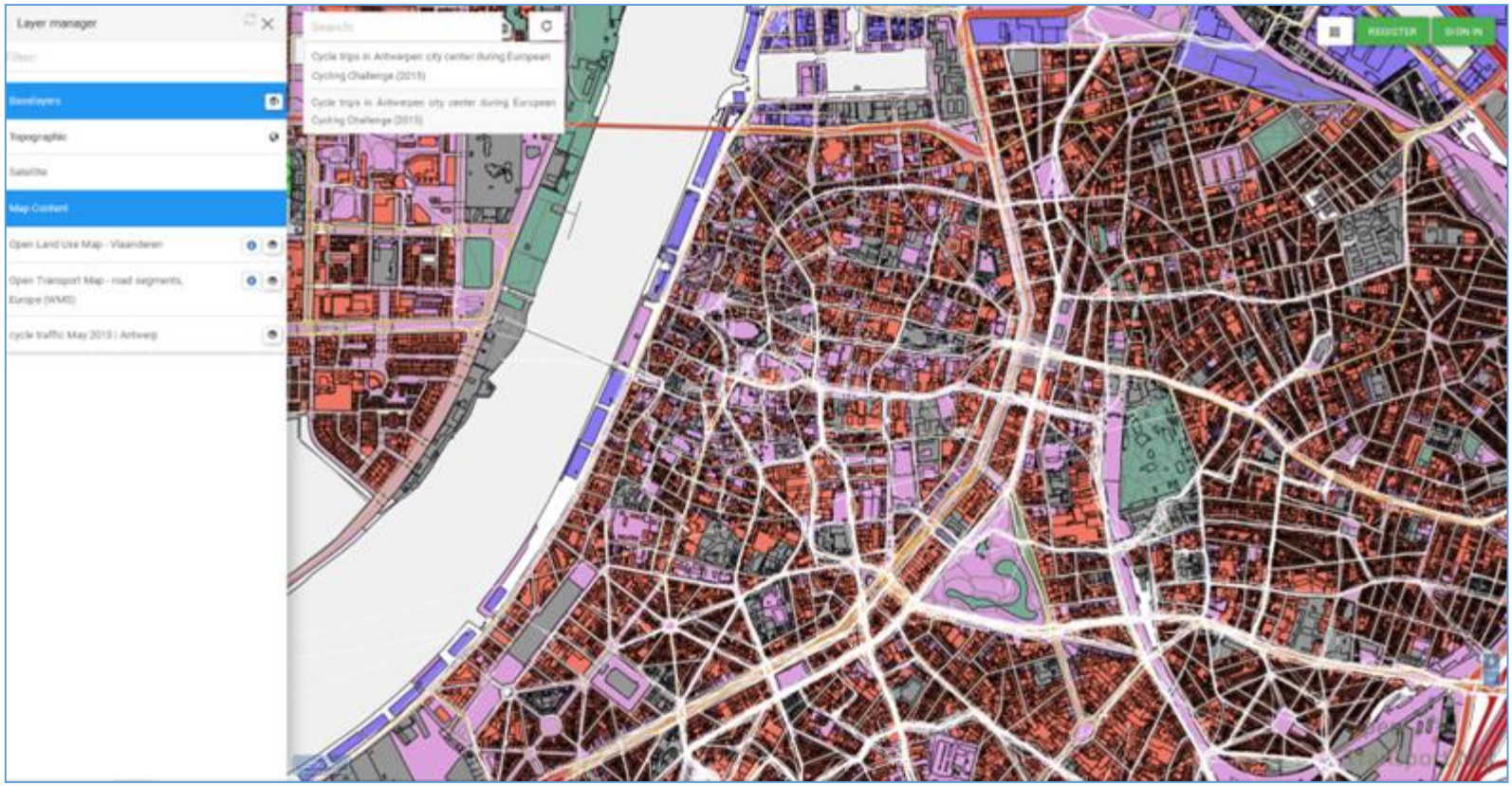
Challenges and motivation

Brownfields mapping



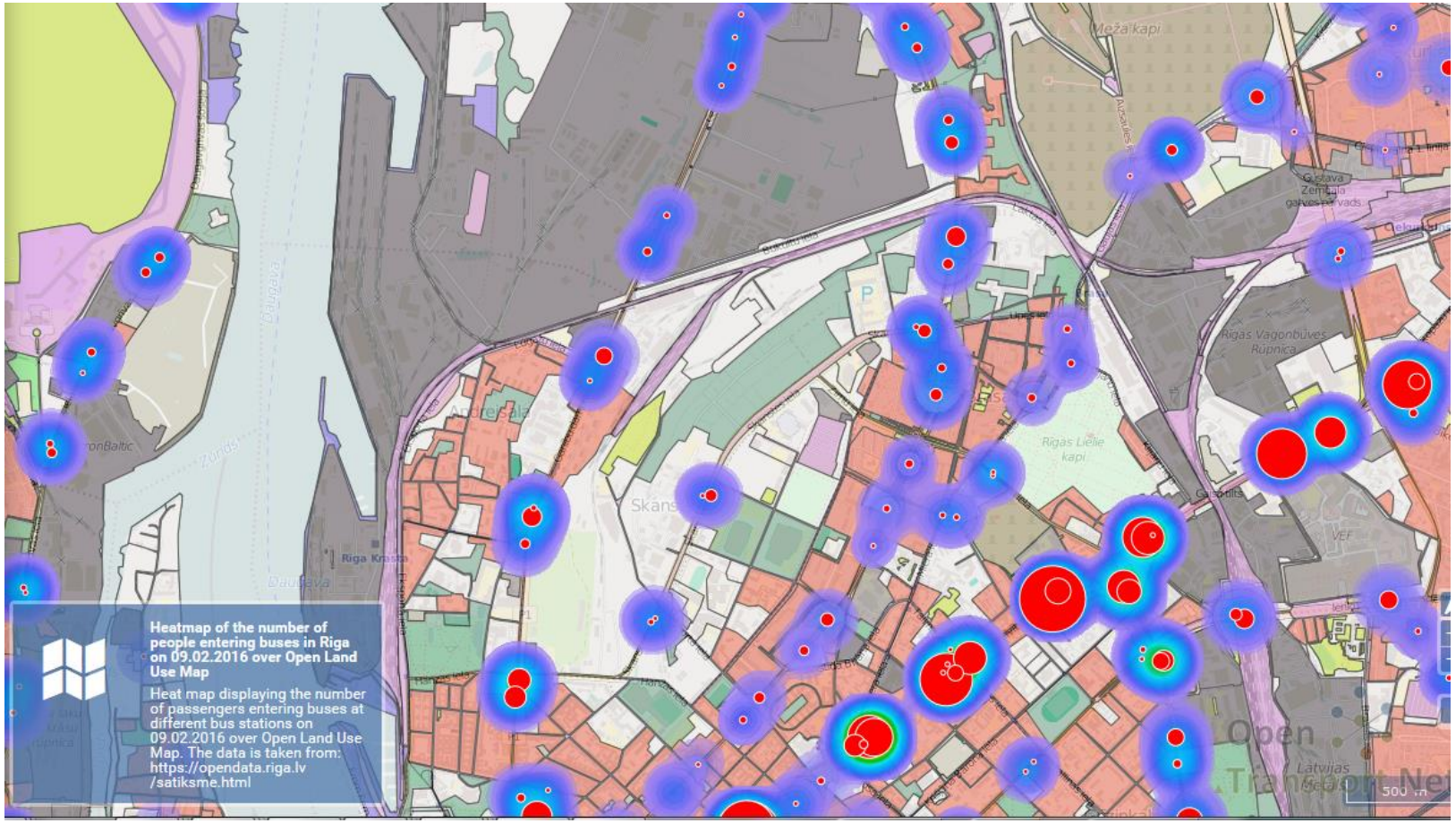
Challenges and motivation

Transport planning



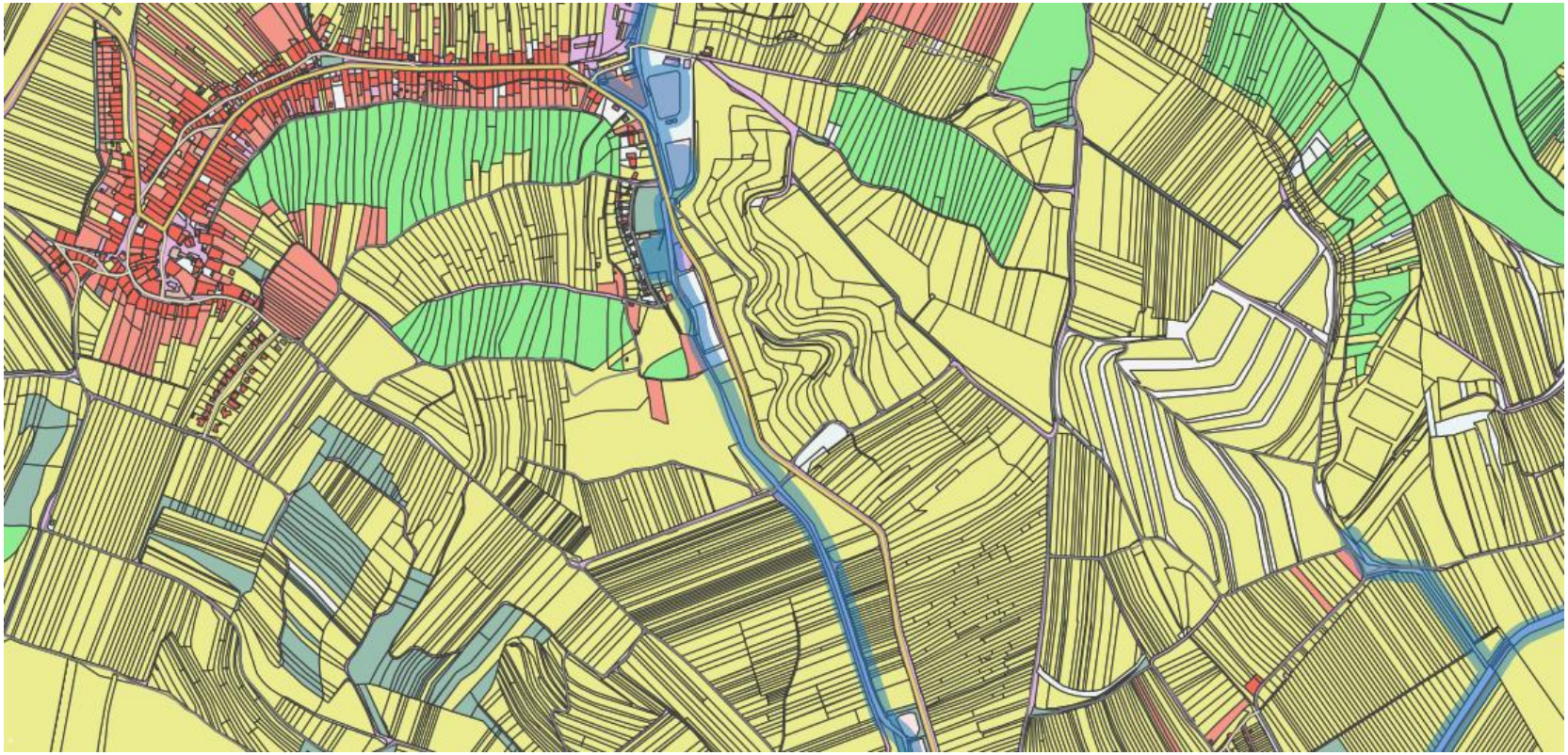
Challenges and motivation

Public transport management



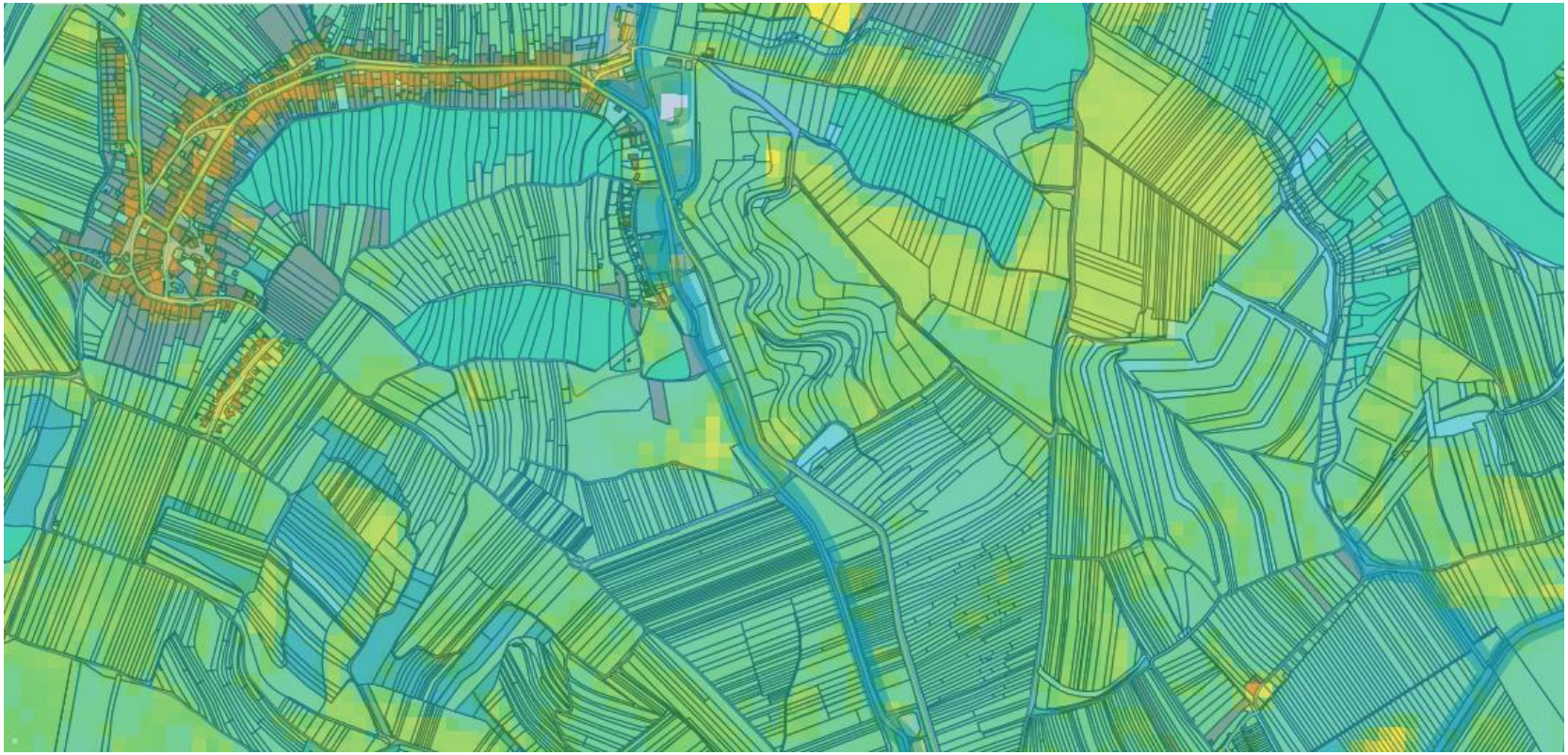
Challenges and motivation

Farming sector



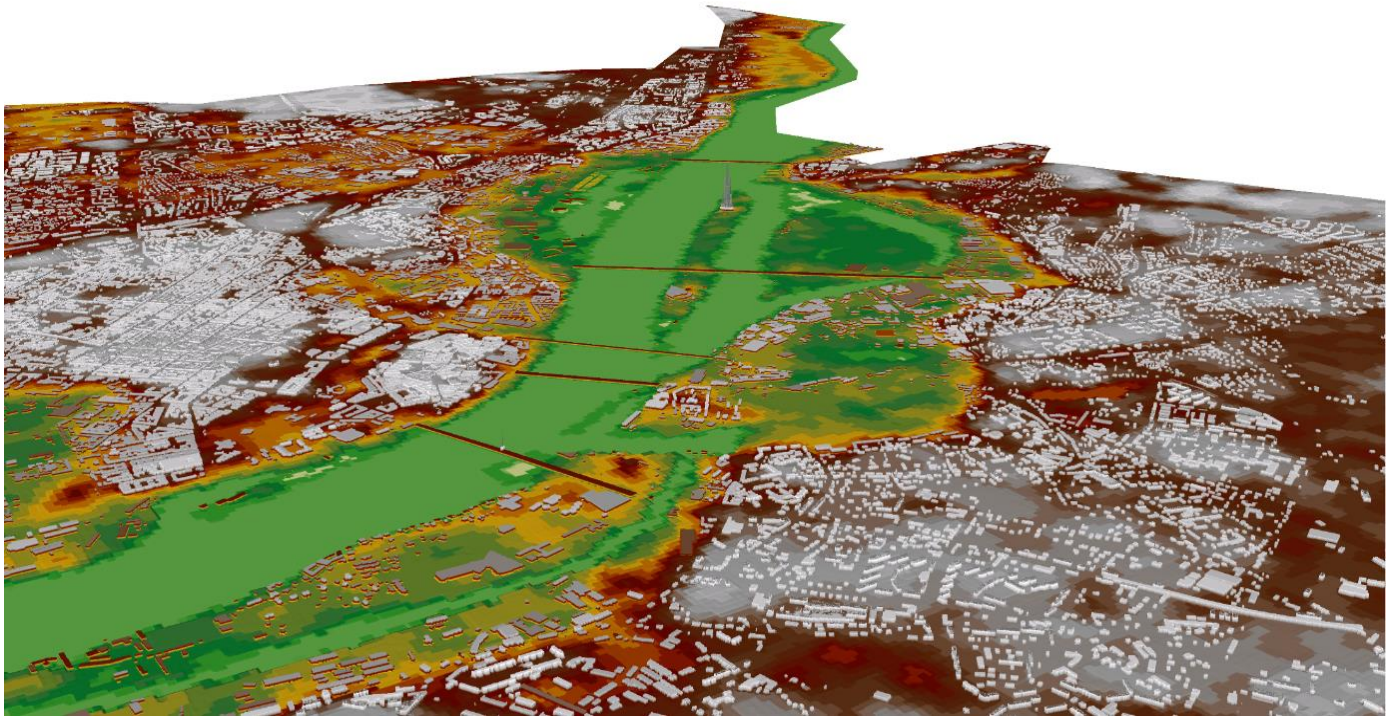
Challenges and motivation

Farming sector



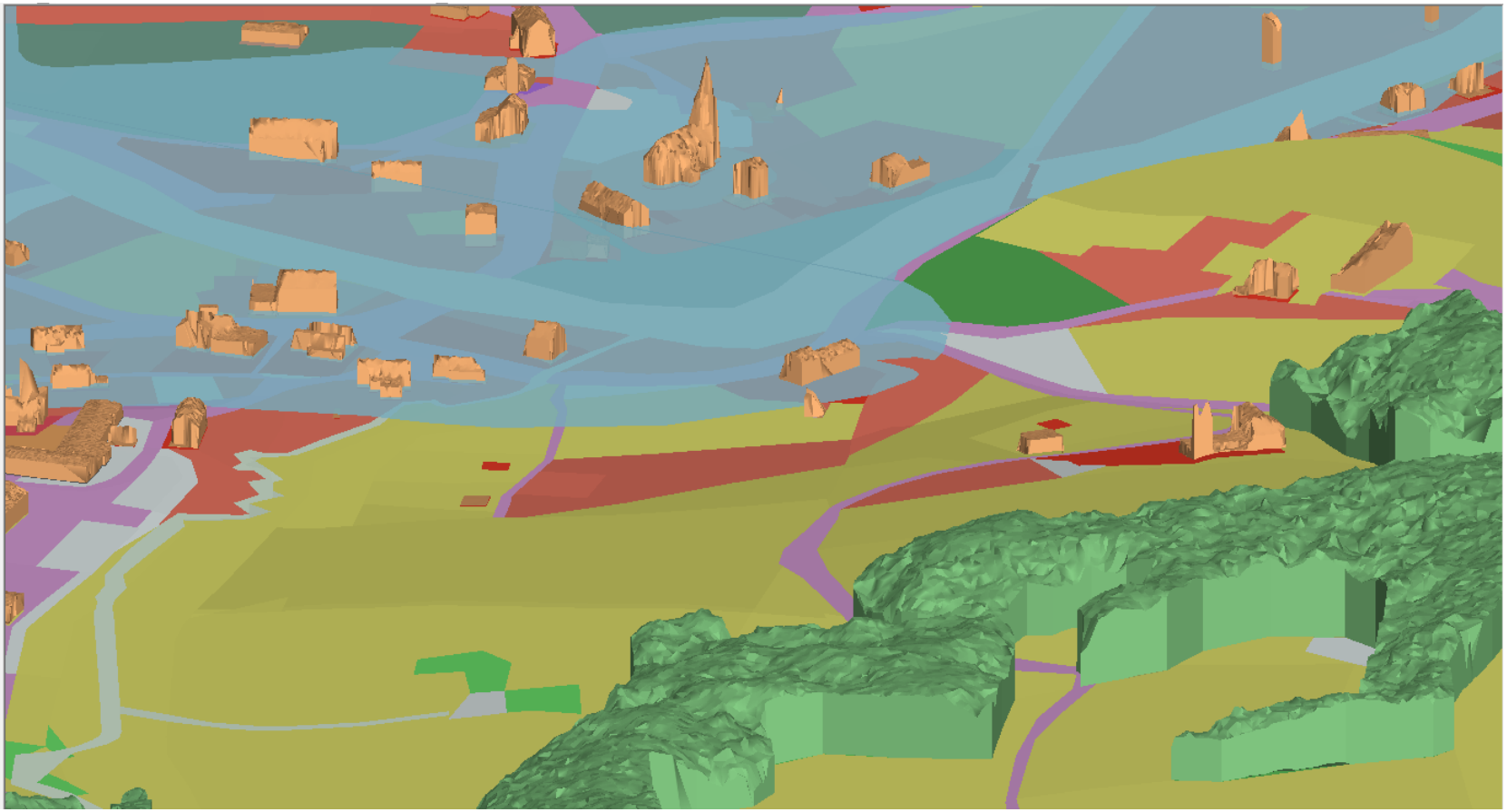
Challenges and motivation

3D visualization for planning



Challenges and motivation

3D visualization for flood protection



Next plans

- Cover all Europe
- Continue with close stakeholders involvement
- Testing new user scenario
- Mobile crowdsourcing
- Enrich re-use of remaining SDI4Apss platform and API components, particularly with focus on:
  - User and resources management
  - Extended publication of the resources (via web interface of CMS, via web services, API)
  - Full multilingual support Wider use of SDI4Apps enablers
  - Extended support for data processing (OGC WPS)
  - Enrichment with linked data
- Contribute to the business modelling /sustainability planning

Links

- Czech Republic http://sdi4apps.eu/open_land_use/
- Latvia http://sdi4apps.eu/open_land_use_lv/
- Slovakia http://sdi4apps.eu/open_land_use_sk/

SPOI demonstration

- http://sdi4apps.eu/spoi/

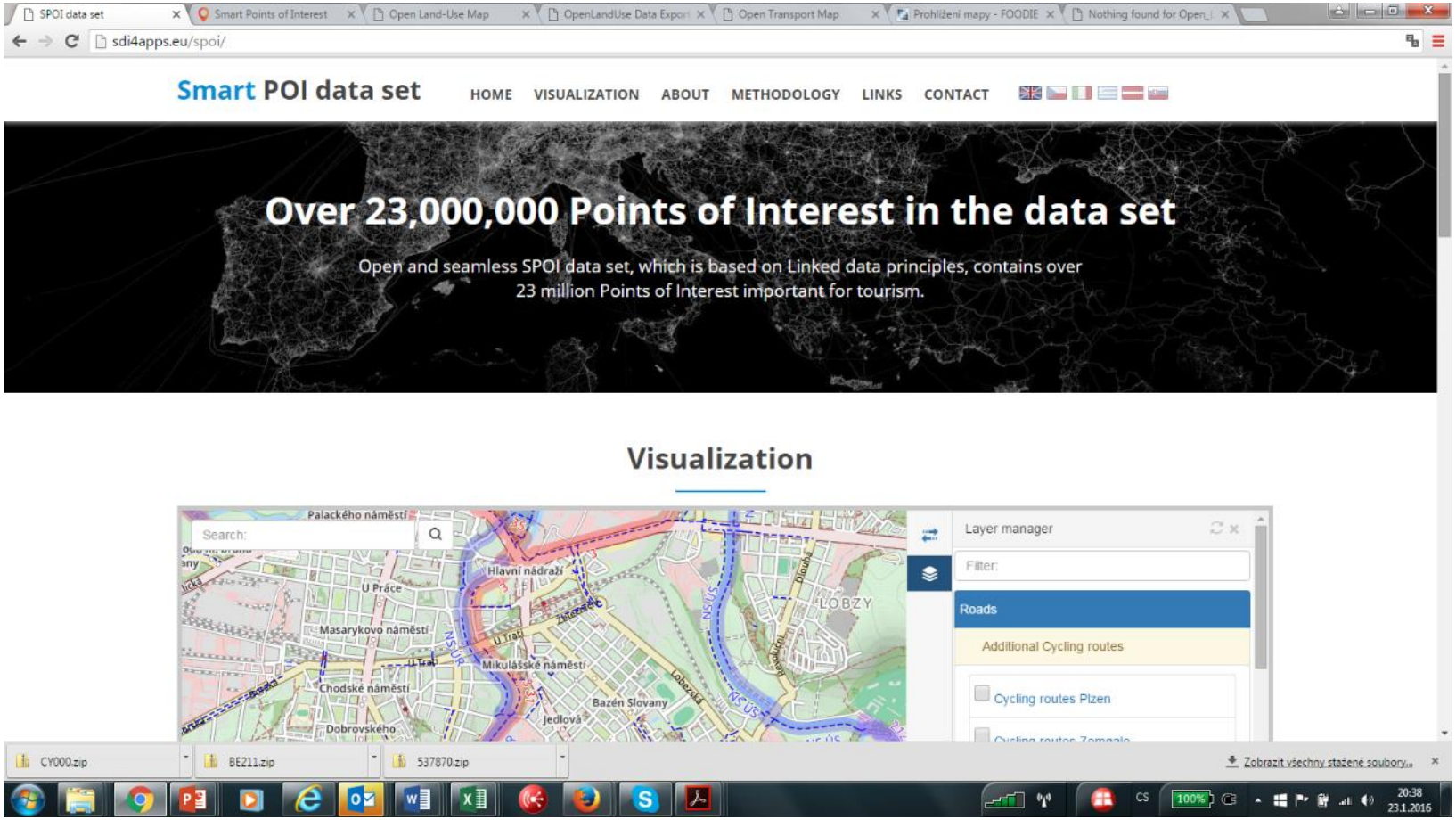
What is SPOI

- Open and seamless SPOI data set, which is based on Linked data principles, contains over 23 million Points of Interest important for tourism from Europe, Africa and South East Asia

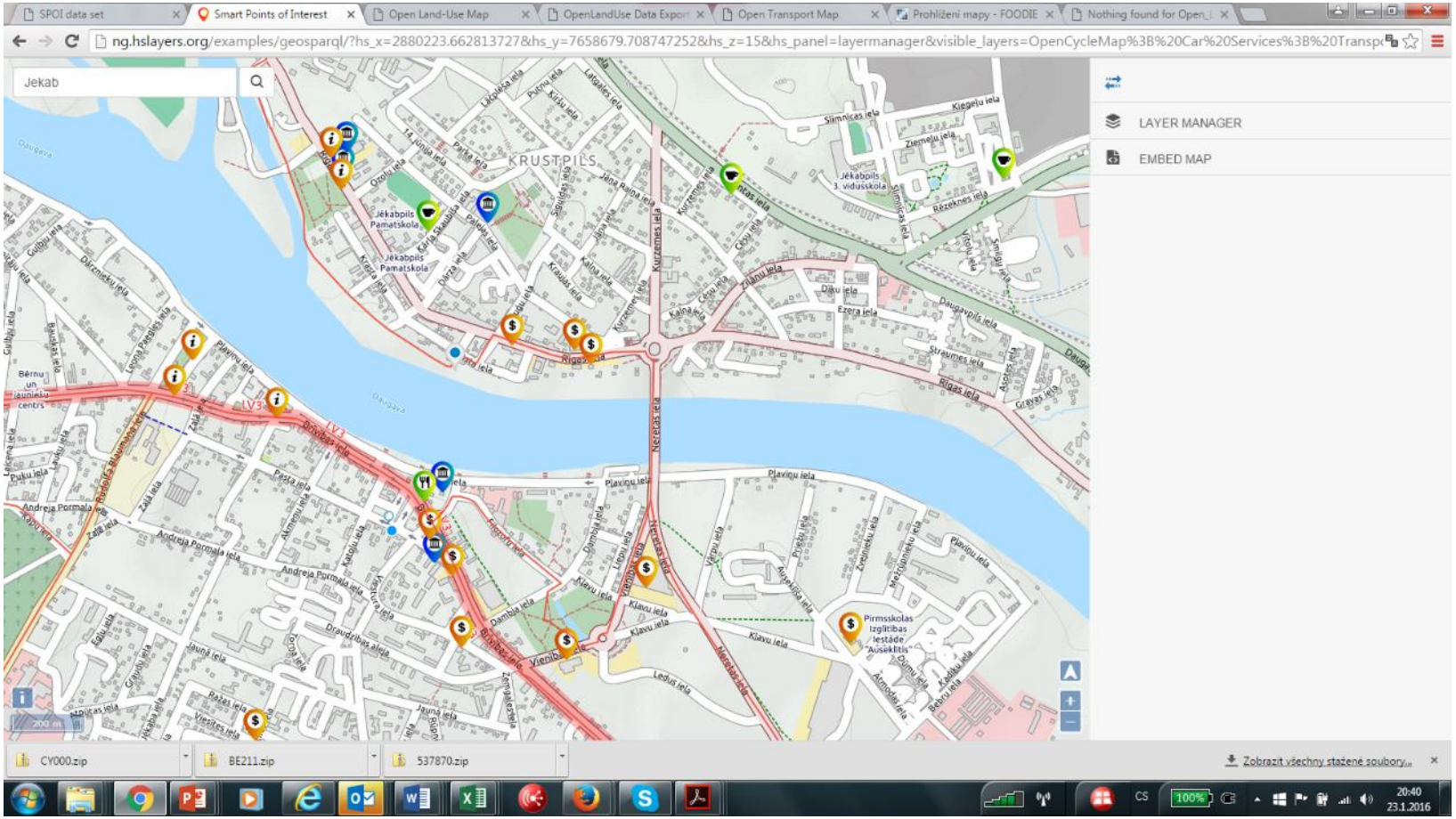
What is SPOI data set?

- The SDI4Apps Points of Interest data set is the *seamless and open resource of POIs* that is *available for other users to download, search or reuse* in applications and services.
- Its principal target is to provide information for cycling as Linked data together with other data set containing road network.
- The added value of the SDI4Apps approach in comparison to other similar solutions consists in *implementation of linked data*, using of standardized and respected datatype properties and development of the *completely harmonized data set* with uniform data model and common classification.

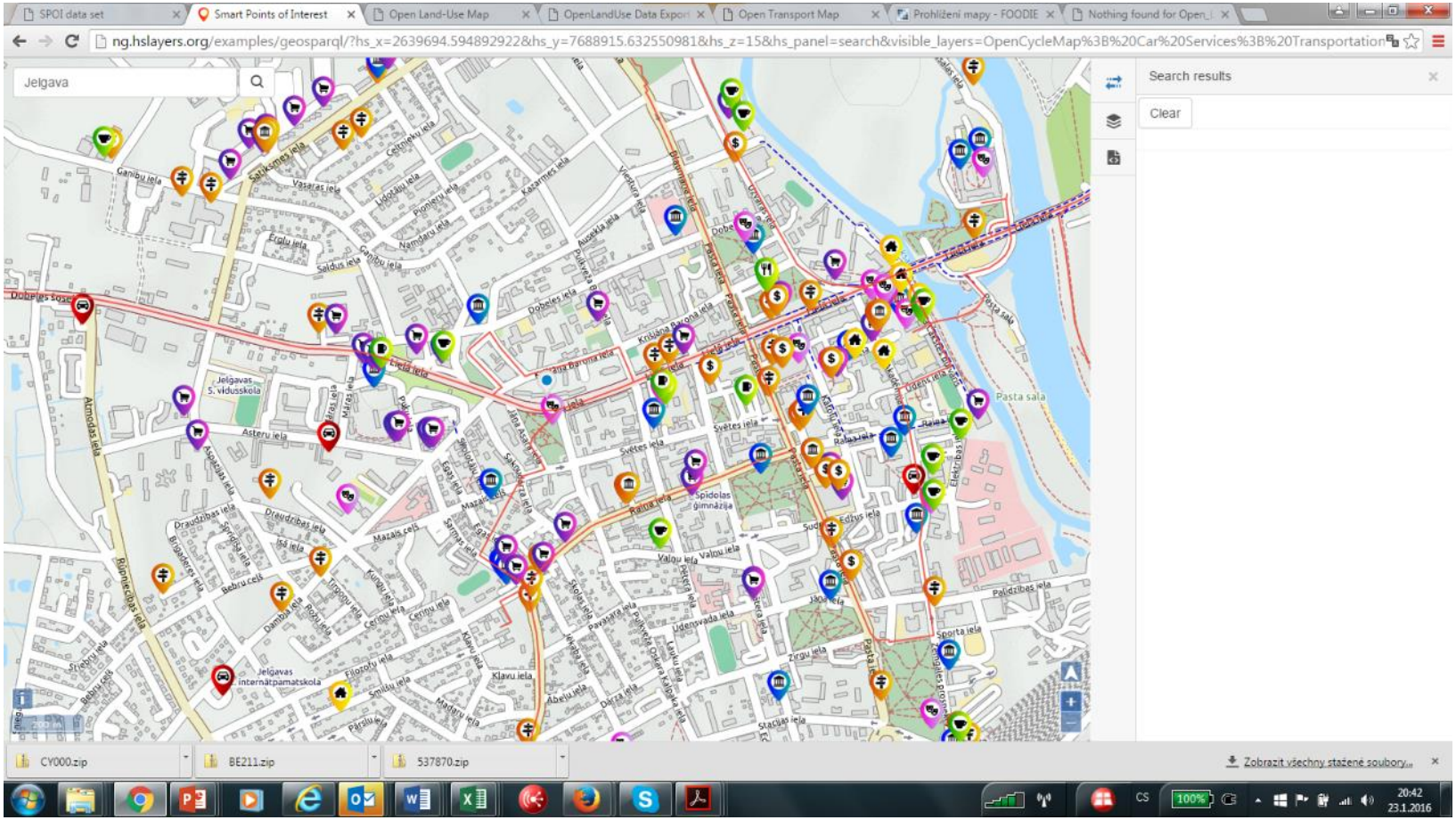
Web Page


sdi4apps.eu/spoi/
Smart POI data set
HOME
VISUALIZATION
ABOUT
METHODOLOGY
LINKS
CONTACT
Over 23,000,000 Points of Interest in the data set
Open and seamless SPOI data set, which is based on Linked data principles, contains over
23 million Points of Interest important for tourism.
Visualization
Search:
Layer manager
Filter:
Roads
Additional Cycling routes
Cycling routes Plzen

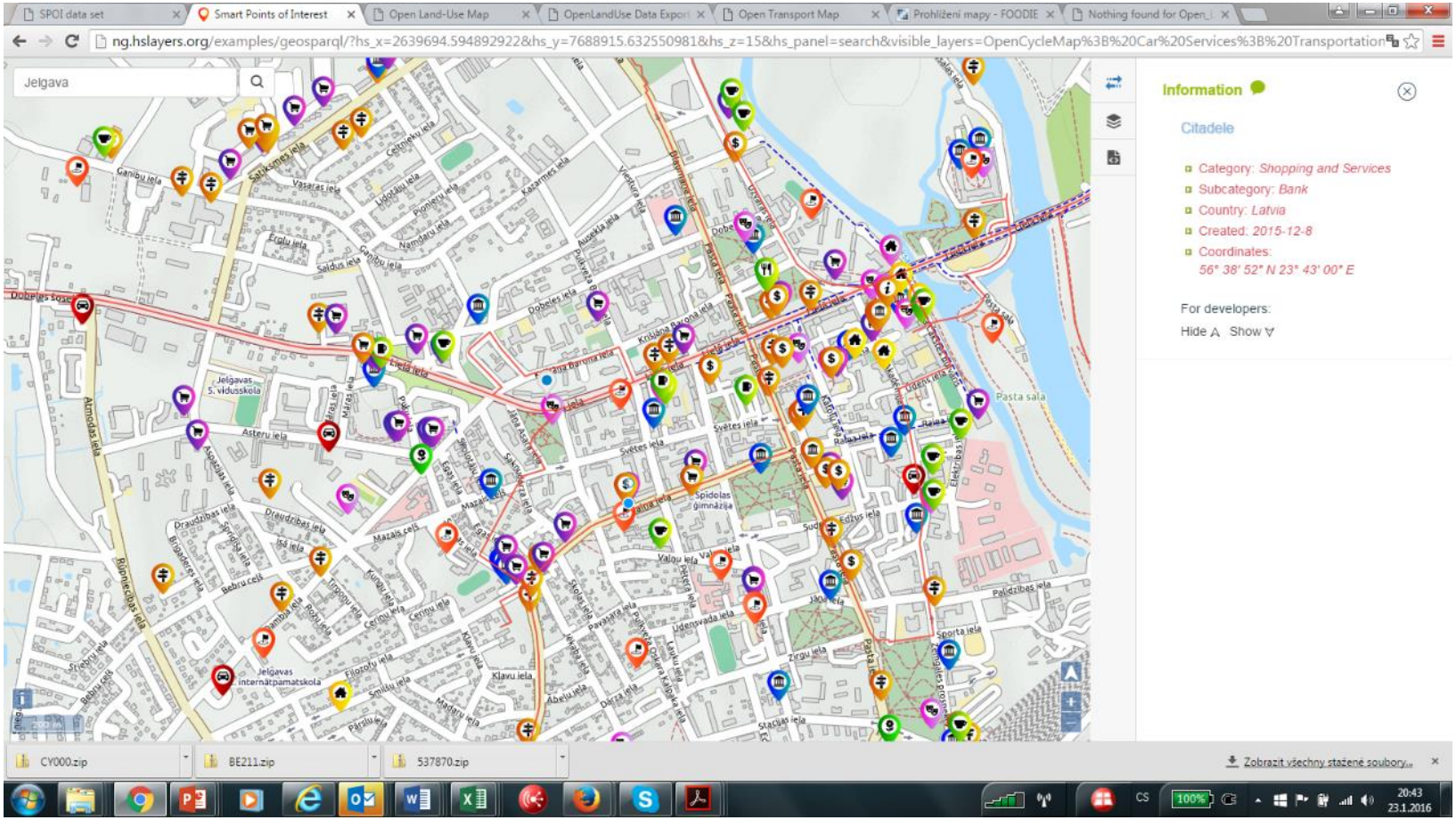
SPOI examples



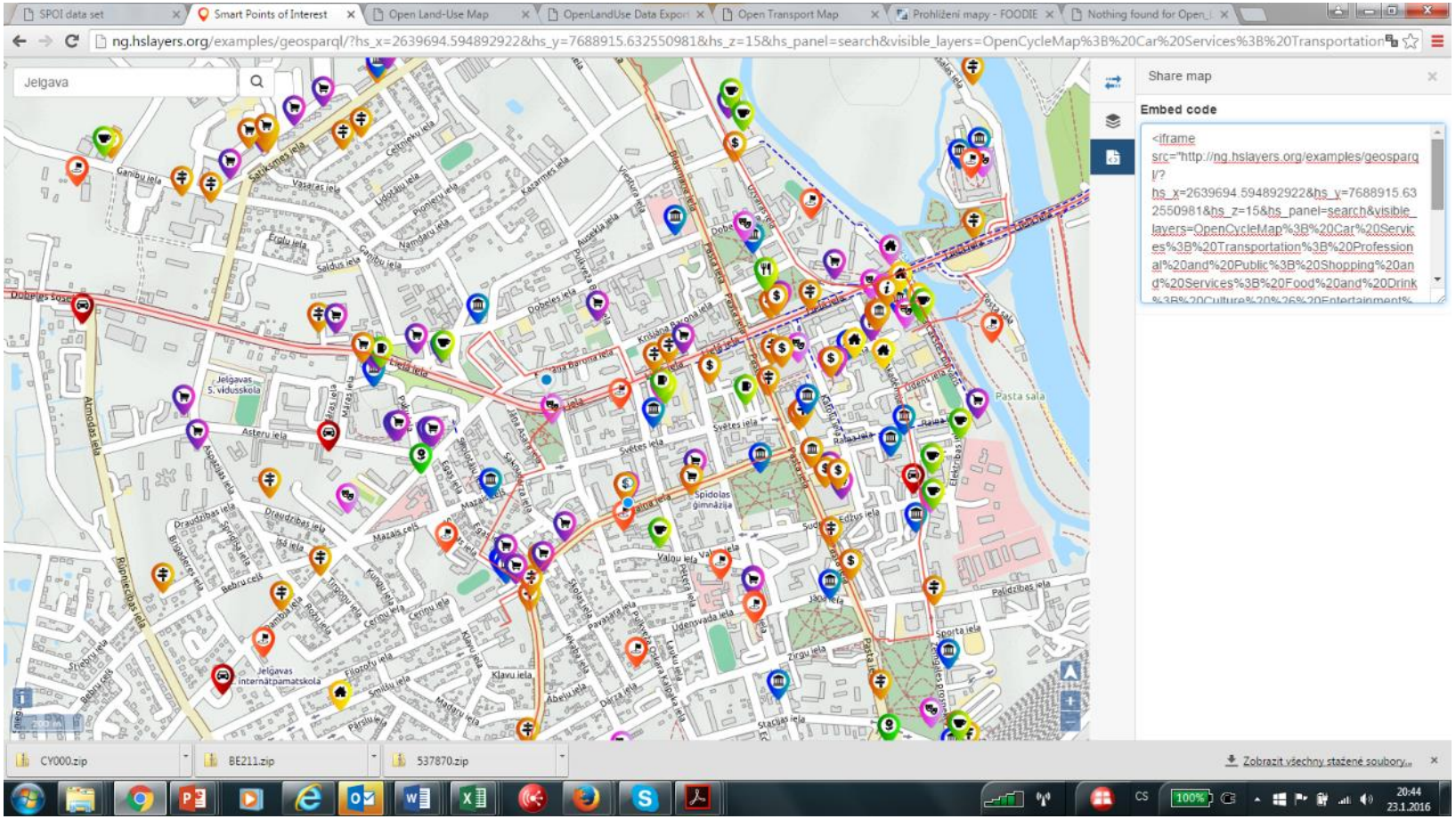
SPOI examples



SPOI examples



Embeded


Smart Points of Interest
Open Land-Use Map
Open Transport Map
Nothing found for Open
ng.hslayers.org/examples/geosparql/?hs_x=2639694.594892922&hs_y=7688915.632550981&hs_z=15&hs_panel=search&visible_layers=OpenCycleMap%3B%20Car%20Services%3B%20Transportation
Jelgava
Share map
Embed code
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CY000.zip
BE211.zip
537870.zip
Zobrazit všechny stažené soubory...