Co-financed by the Connecting Europe Facility of the European Union

GEOE3 WORKING TOWARDS DATA SPACES AND DIGITAL TWINS

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GEOE3

A GEOSPATIALLY ENABLED ECOSYSTEM FOR EUROPE

WHY WE NEED LOCATION DATA IN DATA SPACES?

Source:https://kartta.hel.fi/3d/heating/Apps/Helsinki/view.html

- Common data spaces include; green deal, mobility, health, financial, energy, agriculture, public admin and skills
- Location connects different data and makes it understandable
- Digital twins means not only 3D data but also various dashboards combining huge data volumes
- Everything happens somewhere so location-based user interfaces are natural

HOW GEOE3 MAY HELP

GEOE3

Better access and interoperability of Geospatial data /other data

- Usability of metadata information – e.g. dashboards
- Integration with other data (e.g. statistics, weather data)
- Accessibility through Europan Data Portal (DCAT.AP)

Dynamic harmonisation of geospatial data based on use cases and new APIs

- Example Cloud Platform which will demonstrate use cases and then used for national platform implementatios through different APIs and tools

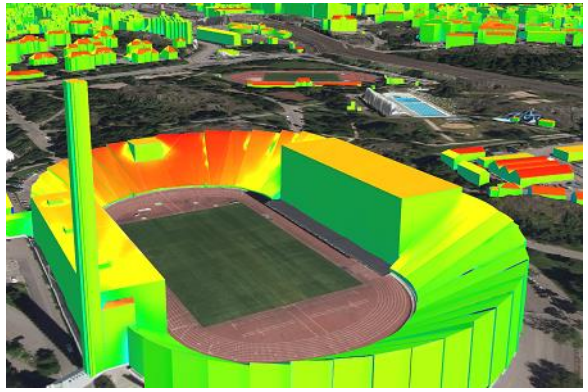
Build an ecosystem based on national platforms

- eLearning videos
- Innovation events
- Benefits

FACTS

- Part of Connecting Europe Facility –programme
- Budget 2.6 million euro, funding 1.9 million euroa
- Partners 12
  - National Land Survey of Finland
  - Finnish meteorological Institute
  - Statistics Finland
  - Spatineo (Finland)
  - Norwegian Mapping Authority
  - Cadastre, Land Registry and Mapping Agency
  - Open Geospatial Consortium Europe
  - CENTRO NACIONAL DE INFORMACIÓN GEOGRÁFICA Spain
  - Estonian Land Board
  - Information Technology Center of the Ministry of the Environment Estonia
  - Aventi Intelligent Communication Norway
  - DIRECCION GENERAL DEL CATASTRO Spain
- Started October 2020, 3 years

USE CASES



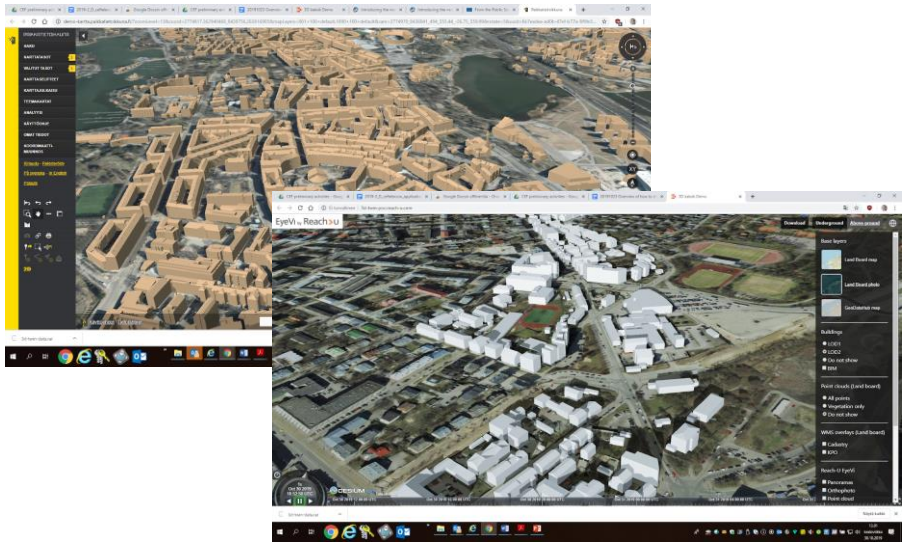
Solar energy potential and energy efficiency of buildings

Optimized use of solar energy

Reliable, future-proof planning of buildings

Co-operative Intelligent Transport Systems and Advancing map enhanced driver assistance systems leading to automated driving

Cleaner and safer transport



Cross border & Cross domain Smart City Finland Estonia

City planning for sustainable energy

Sustainable urbanization

DATA

GEOE3

Spatial

- Point clouds, Orthophotos
- 3D building model with LoD 2 detail
- Building footprints and address data
- Cadastral data
- Digital Elevation Model, Digital Surface Model (DSM) of the surrounding area
- 2D and 3D road data
- Building plans, urban planning
- Land use and Land cover

Connected by
Location
Persistent ID
Address

Other

- Relevant building attributes
- Shadow index coverage
- Number of sunshine hours at the nearest observation station
- Average wind conditions
- Normal air temperature at the nearest observation station
- Monthly mean temperature based on climate scenarios
- Traffic data
- Road signs and Speed limits
- Traffic accidents
- Population statistics
- Petrol stations

ACTIVITIES

GEOE3

1 - Administration and action management (NLS-FI)

2 - Content Discovery and Evaluation (DISCOVER) (KAD-NL)

3 - Data interoperability of the Geospatially Enabled Ecosystem (IMPROVE) (KARTV-NO)

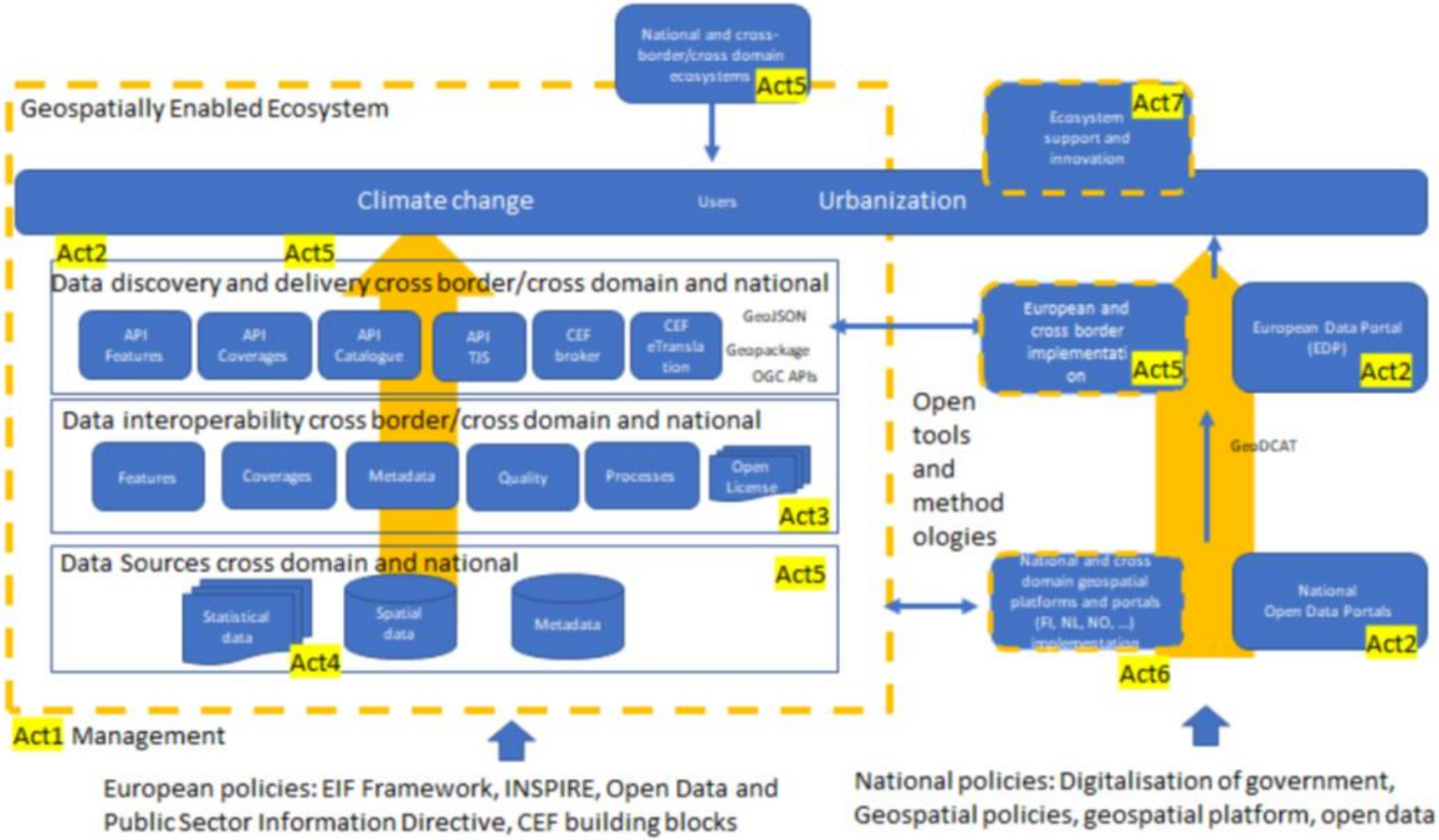
4 - Integration of tabular data in the Geospatially Enabled Ecosystem (DISCOVER) (NLS-FI)

5 - Service and tool development for the Geospatially Enabled Ecosystem (IMPROVE) (FMI-FI)

6 - National platform and cross domain spatial platforms and portal implementation (GROW) (NLS-FI)

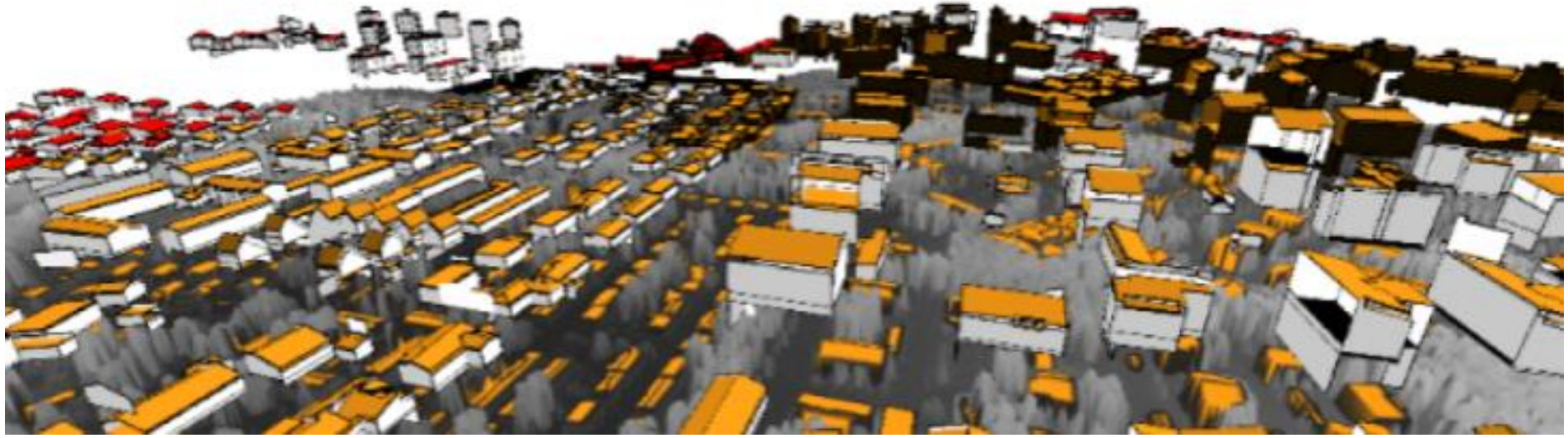
7 - Support and innovation for the Geospatially Enabled Ecosystem (GROW) (OGC-BE)

TECHNICAL ARCHITECTURE



STATUS OF WORK

- Use cases completed
- Dataset identification ongoing within countries
- Technical architecture work started
- Cloud environment being set up
- Trials with OGC API's started



PLATFORM

GEOE3

Home

GeoE3 OAPIF Buildings

Experimental service for cross-border provision of buildings

geospatial ecosystem cross-border building

Terms of service https://creativecommons.c
License CC-BY 4.0 license

Contact

Collections

View the collections in this service

API Definition

Documentation

OpenAPI Document

Conformance

View the conformance classes of this service

Home / Collections

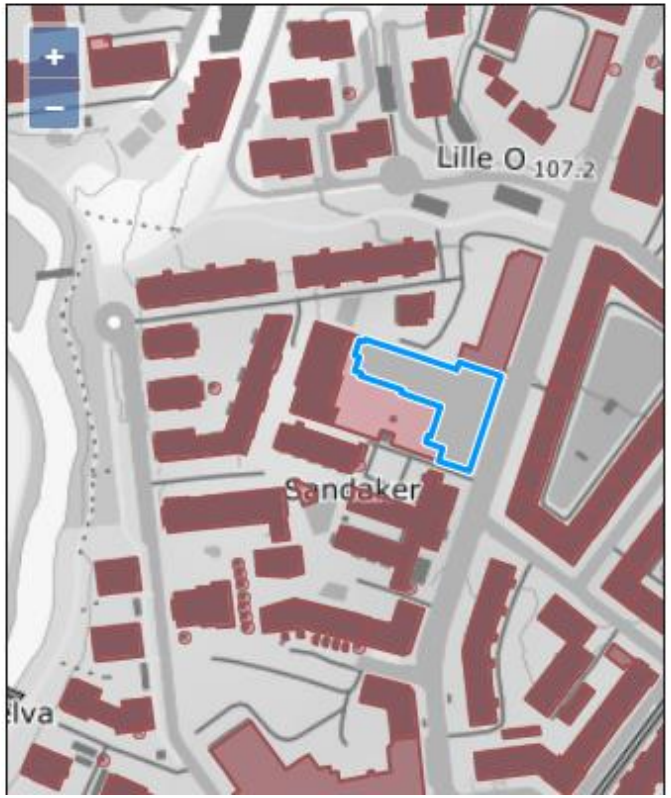
Collections in this service

Name	Type	Description
Finland	Feature	Buildings from NLSFI
Norway	Feature	Buildings from Kartverket
Spain	Feature	Buildings from Spanish Cadastre

Home / Collections / Norway / Items / Buil

Norway

Zoom in to see the items in this collection.



ECOSYSTEM SUPPORT AND INNOVATION

- Communication & Dissemination plan
- Website & Social Media www.geoe3.eu
- Support Events for new APIs and tools
- Innovation Events
- 9 eLearning modules
- GeoE3 network: Based on national geo-platforms, developers, users

POTENTIAL OUTCOME

- APIs supporting the platform
- Improved metadata access through the European Data Portal
- Tools for interoperability and quality
- Creating a network based on national and regional data providers willing to work on data interoperability
- E-learning videos
- Investigating now a possibility on creating European Digital Innovation Hubs on location

EUROPEAN DIGITAL INNOVATION HUB (EDIH)

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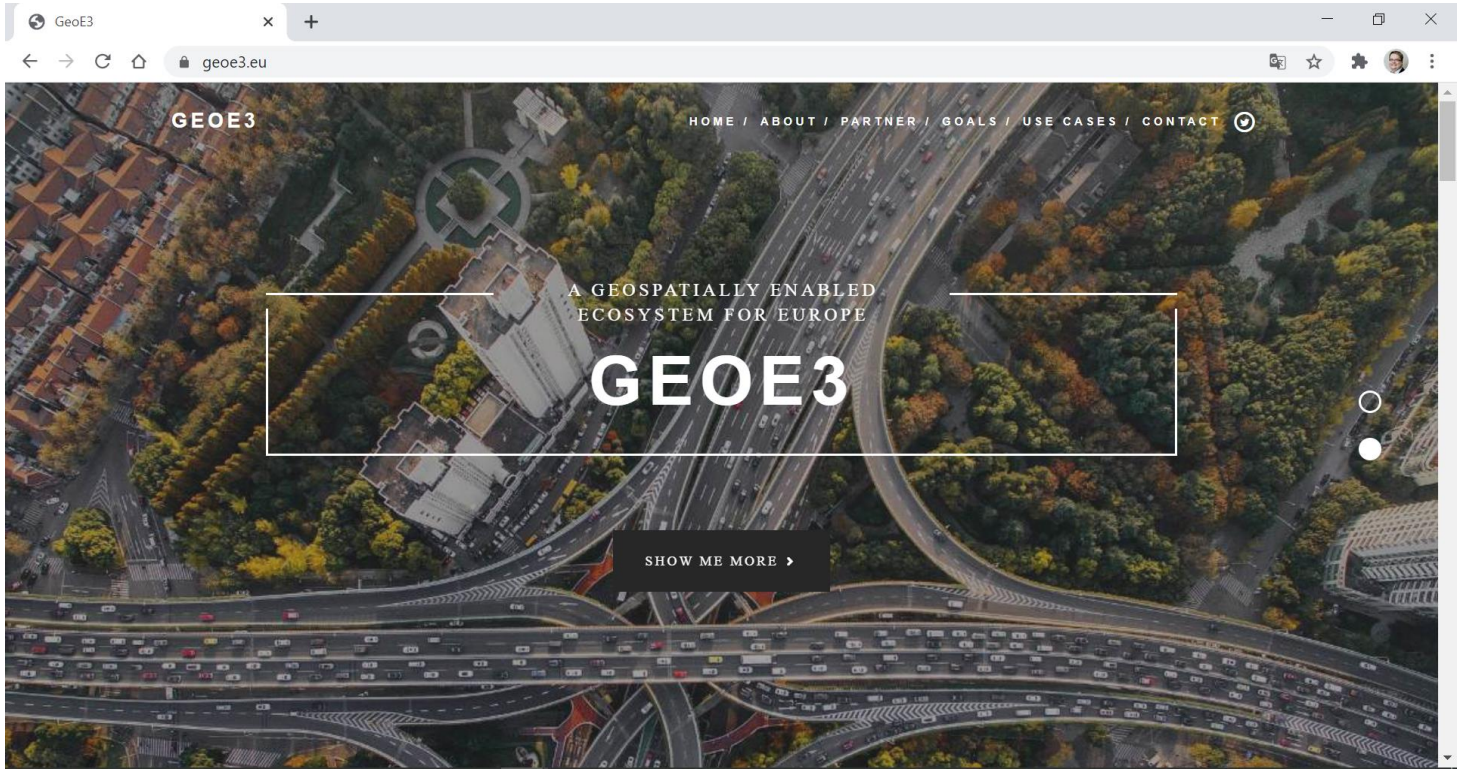
Location Innovation Hub was accepted as one candidate for a European Digital Innovation Hub

National Land Survey proposal for creating a Location Innovation Hub (LIH) is one of the candidates from Finland for a European Digital Innovation Hub (EDIH). At best, these hubs could start their activities during 2021.

More information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