Positioning technologies and Location Innovation HUB

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United Nations/Finland Workshop on the Applications of Global Navigation Satellite Systems
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What we are? Creating Location Intelligence

- Services we offer: Consultation, Training, Testing infrastructure, Tools and Funding guidance on location technology
- Both for businesses and public sector
- Focus on four different themes:
  - Built Environment
  - Bioeconomy
  - Health and Wellbeing
  - Transportation and Logistics
- Coordinated by Finnish Geospatial Research Institute with a partner network.
Location Innovation Hub as a part of EDIH-network

• European Digital Innovation Hubs (EDIHs) are part of the EU’s new Digital Europe Programme.
• Function as service points that boost digital investment and, in particular, the digitalization of SMEs.
• European not-for-profit actors
• Operation period 2023-2025 + possible extension for 4 years

More than 150 EDIHs around Europe

321 million euros funding for the EDIHs

4 Finnish EDIHs (LIH, Finnish AI Region, Health Hub Finland ja Robocoast)
Value is created together

10 business partners
15 universities, public organizations, and associations
22 associated partners

Knowledge transfer and services

7 reference data spaces
200 spatial data services
600 data sets
5 novel sensor data sets
50,000 potential location data services available through European Data Portal

Themes we are focusing on

Built Environment
Bioeconomy
Health and Wellbeing
Transportation and Logistics

GIS business accelerators

- Interoperability of location and other data
- Next generation navigation space
- Precise positioning
Potential of positioning in our focus areas

- Interoperability of location and other data
  - Need of accurate location data
  - Knowledge of reference systems for example building industry
  - Use of accurate data as positioning reference
- Next generation navigation space
  - Combining outdoor and indoor positioning
- Precise positioning
  - All our focus areas
  - Robotics
  - Ports and other industrial areas
  - Weather
  - Mobility

Example companies working on this

- Koherent [https://koherent.io/](https://koherent.io/) Millimeter-precise positioning used in for example ports, smart factories, or self-driving vehicles
- Skyfora [https://www.skyfora.com/](https://www.skyfora.com/) Next generation weather intelligence utilizing precise positioning
- Risutec [https://risutec.fi/](https://risutec.fi/) High accuracy positioning in precise forestry applications
- GIM Robotics [https://gimrobotics.fi/](https://gimrobotics.fi/) Universal 3D mapping and localization solutions for autonomous driving
- Kuva Space [https://kuvaspace.com/](https://kuvaspace.com/) Earth observation through hyperspectral imaging
- Wirepas [https://www.wirepas.com/](https://www.wirepas.com/) 5G Mesh Asset tracking
- Haltian [https://haltian.com/](https://haltian.com/) Asset tracking
- Septentrio [https://www.septentrio.com/en](https://www.septentrio.com/en) GNSS receivers
- HERE [https://www.here.com/platform/positioning](https://www.here.com/platform/positioning) Automated driving, fleet management, asset tracking, indoor positioning
- DIGIRAIL [https://digirail.fi/](https://digirail.fi/)
- Awake.ai [https://awake.ai](https://awake.ai) Port situational awareness

Name Surname

25.10.2023
• Open House concept
• GeoMob Finland
• Webinars and other events
• Positio-magazine and newsletter

Communication and Matchmaking

Discovery of strategic challenges and business opportunities

Maturity Assessment

• Testing infrastructure
• Training
• Developer consultancy
• Reference data spaces and AI solutions

Innovation architecture

Innovation ecosystem

• Co-creation through challenges and Location Innovation Programme
• Other networks
• Business consultancy

Co-creation projects

New solutions in public and industry sectors

New joint offerings by SMEs

Co-funded by the European Union
Data spaces

Work on reference data spaces to establish the link between geodata and other data. Seeking funding for these both in Finland and in Europe.

Innovations

Work on creating new innovation and business in location data and services. Create European based solutions, for example Location API business manual. Data integration guidance.

Test environments

Providing test before invest services: GeoE3 platform, next generation navigation space in Otaniemi, urban test environments, novel datasets and test areas.

Key outcomes expected
Location API business manual

Version 1.0 | March 2023

**Starter Kit for Data**
**Space Designers**

- Business models
- Lifecycle management
- 5G
- Copyright and licenses
- Ethical questions
- Security
- Sensor APIs

**Global and national guidance**
Data integration platform available for test before invest type of service development

Data integration platform
Accessible and interoperable integration of cross-border high-value geospatial datasets for free for growing businesses.

View datasets >

Use cases
There are several ways how you can benefit from these available datasets and use them for your businesses. See how others are using our data. Real-life case studies for a range of challenges and uses.

View use case examples >

Share your geospatial data
If you are working in an organisation that publishes or produces data, check this information and join our platform.

Read more >
3D LoD2 available in Finland, Netherlands, Estonia, other countries generated from 2D
Next Generation Navigation Space

Target: test environment for indoor navigation
Seamless experience indoor/outdoor
Otaniemi, FGI premises

Urban test areas
Target: Digital Twins, Smart cities

Agri/Food test areas

Visualisation environments
Target: Decision making, VR, AR

Forest test areas
Collective Crunch scalable forest inventories, tracking of forest health and biodiversity, and monitoring of carbon changes.
Funding and networks

EU Funding workshops
Business consultancy
Public sector network – Sectoral networks
Location Innovation Programme - challenges

Development consultancy

Need a solution where location component is needed? We will help

Training

Geospatial Challenge Camp – Health and well-being
September- December

Open House

LIH Open house: Paikkatiedosta uutta liiketoimintaa
29.3.2023 klo 15:30 | Vierailukeskus Joki, Turku

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Gispo Oy

Timo Huttunen
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Partners and Associated partners

European core data provider network
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Thank you

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