

Supporting Creation of Innovative Location-Based Solutions through the Location Innovation Hub

Antti Jakobsson^{a,*}

^a National Land Survey of Finland – antti.jakobsson@maanmittauslaitos.fi

* Corresponding author

Keywords: location intelligence, innovation, digital transformation, artificial intelligence, high performance computing, cybersecurity, bioeconomy, built environment, health & wellbeing, transportation

Abstract:

The *Digital Europe Programme* was launched by the European Union to accelerate digital transformation and foster strategic capabilities in key areas: High Performance Computing (HPC), Artificial Intelligence (AI), Cybersecurity and Trust, Advanced Digital Skills, and the Deployment and Interoperability of Digital Capabilities. As part of this effort, 151 *European Digital Innovation Hubs (EDIHs)* were established in 2023, with a second wave expected in 2026. First insights into the programme's impact were presented in 2024.

In Finland, four EDIHs were designated: the Finnish AI Region (FAIR), focusing on AI in digital services, smart cities, and health; HealthHub Finland, focused on healthcare innovation; Robocoast, emphasizing cybersecurity, IoT, AI, and robotics; and the *Location Innovation Hub (LIH)*, which addresses all core policy areas through the lens of location intelligence. LIH specifically targets the domains of the built environment, bioeconomy, transportation, and health & wellbeing (Jakobsson, 2023).

LIH operates as a centre of excellence for geospatial information and technology, offering tailored support to SMEs and public sector organisations. Its services include business development coaching, technology adoption, and funding guidance. With the location-based economy projected to surpass USD 1.37 billion by 2030 (Geospatial World, 2024), LIH plays a crucial role in enabling the use of AI, HPC, and secure geospatial technologies across key sectors such as logistics, sustainable food systems, forestry, and smart infrastructure.

The European Commission evaluates EDIH impact using tools like the *Digital Maturity Assessment Tool (DMAT)* (Stake, 2024). According to the 2024 mid-term review, Finnish hubs scored 53–58%, the highest in Europe (EU average: 40%). For services targeting public administration, Finnish hubs averaged 69%.

Many SMEs and public bodies still lack awareness of how location data and technologies can benefit their operations. Most current needs are relatively simple—e.g., publishing data on map services—though more advanced use cases are emerging, such as sensor-based precise positioning. LIH has been proactive in enabling *Test Before Invest* services and now offers 37 test environments (<https://locationinnovationhub.eu/en/test-environments/>). Among these, the *Location Europe* platform, originally developed in the GeoE3 project (2023), and the forthcoming *Location Finland* platform, exemplify the shift toward interoperable and API-driven location data infrastructures. Both platforms apply OGC-based Open API standards and enable on-the-fly data processing via HPC environments (e.g., converting 2D to 3D building data).

Despite their potential, businesses are still adapting to API-based workflows. Meanwhile, the European Commission's work on data spaces (<https://digital-strategy.ec.europa.eu/en/policies/data-spaces>) highlights the critical role of spatial data interoperability. LIH actively promotes integration of geospatial data into these emerging ecosystems. Given the volume of geospatial datasets, transferring raw data is often impractical. Instead, there is growing demand for remote processing services and secure, federated access—aligned with the principles of data spaces.

To address key challenges, LIH has published a series of practical guides—covering API business models, geospatial data integration, global and national datasets, and accurate positioning—all freely available at www.locationinnovationhub.eu. These resources are complemented by the *Location Innovation Academy* (academy.ogc.org), an online learning platform developed initially in the GeoE3 project and now maintained jointly by LIH and OGC. The academy features 3 courses and 12 e-learning modules, offered in both English and Spanish.

Since launch, over 1,000 participants have enrolled, with 250 new learners in the last six months. Users span all continents, with high uptake in Spain and the European public sector. Key takeaways include improved understanding of geospatial data access, interoperability, and modern standards such as OGC APIs. Feedback is highly positive, with an average course rating of 4.3 out of 5 and over 95% of respondents recommending the courses to peers. Newest additions to the academy include two courses on GeoAI.

The LIH's educational and technical contributions are demonstrably accelerating the adoption of location intelligence, fostering data-driven innovation across Europe and beyond.

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