10 applications for the European Digital Innovation Hubs in Finland

The Ministry of Economic Affairs and Employment organized a call for applications to select Finnish candidates for the European Digital Innovation Hubs (EDIHs) between 18 November 2020 and 15 January 2021. We received 10 applications.

- 5STAR eCorridors (Federation, Interoperability and Verification of Electronic data sharing in multimodal Sea/Truck/Air/Rail logistics in eCorridors)
- Arctic-EDIH
- European Digital Innovation Hub for a Clean Planet
- FAIR – Finnish AI Region
- HealthHub Finland
- Location Innovation Hub (LIH)
- Real-Time Economy InnoHub EDIH
- Robocoast EDIH Consortium – The EDIH of Manufacturing Export Industry (Robocoast EDIH in short)
- SIX Manufacturing EDIH
- WellLake EDIH

The submitted proposals

5STAR eCorridors (Federation, Interoperability and Verification of Electronic data sharing in multimodal Sea/Truck/Air/Rail logistics in eCorridors)

Responsible organization: DIMECC Oy
Address: ElectroCity, Tykistökatu 4, 20520 Turku, Finland
Main focus: Artificial intelligence
Main sector / application area: Mobility and logistics

5STAR eCorridors EDIH promotes advanced digital technologies (AI, blockchain, AR/VR, big data, 5G, Additive Manufacturing, etc.) and more effective use and sharing of data in Finnish SMEs and midcaps operating in maritime industry, sea/truck/air/rail transportation and logistics, and in related manufacturing and service industries. The target is efficient and sustainable multimodal logistics and well-functioning export routes that are essential for the Finnish competitiveness and societal well-being.

Through EDIH, companies gain competences that enhance innovation and speed up time-to-market and time-to-money. It offers competence development, access to test facilities, support to finding investments and external funding, and access to relevant innovation networks and ecosystems. Service providers include both private companies and academic organizations.

EDIH has strong industrial base that builds on the strengths of One Sea and CaaS Nordic ecosystems. It is coordinated by DIMECC Oy.

Possible other consortium members:

The following organizations have indicated their interest to support the operations of this EDIH.

Signed Letter of Intent:
• One Sea ecosystem (ABB Oy, Awake.ai Oy, Cargotec Oyj, Ericsson Oyj, Finnpilot Pilotage Oy, Fintraffic VTS Oy, Haltian Oy, Kongsberg Oy, NAPA Oy, TietoEVRY Oyj, and Wärtsilä Oyj)
• Aalto University
• Aker Arctic Oy
• CaaS Nordic
• City of Vantaa
• DBE Core Oy
• Deltamarin Oy
• Finland's National Emergency Supply Agency
• Finnair Cargo Oy
• Finnish Marine Industries
• Finnish Shipowners' Association
• Fintraffic Oy
• GoSwift Oy
• JAMK University of Applied Sciences
• Lingsoft Oy
• Novia University of Applied Sciences
• Northern Growth Zone (Pohjoinen kasvuvyöhyke)
• Sitowise Oy
• Traficom
• Turku University of Applied Sciences
• University of Jyväskylä
• University of Turku
• Vediafi Oy
• WSP Finland Oy
• Åbo Akademi University.

Verbal support:
Finnish Customs, Finnish Ministry of Transport and Communication

Contact

Arctic-EDIH

Responsible organization:	University of Oulu
Address:	P.O. Box 8000, 90014 Oulun Yliopisto (customer facing location address: BusinessAsema, Hallituskatu 36B, 90100 Oulu)
Main focus:	High-performance computing
Main sector / application area:	Health and wellbeing

The complex and diverse solutions in healthcare transformation are built on dialogue with versatile competences and technologies. By matching digital health and wellbeing SMEs and service providers with breakthrough technologies, Arctic-EDIH (AEDIH) accelerates sustainable growth!

AEDIH services and its technological core of HPC coupled with AI, cyber security, edge computing and connectivity (5G/6G) drive safe, reliable digital solutions and data-driven decision making. AEDIH builds on one of the leading digital health and wellbeing innovation ecosystems in Europe (OuluHealth) extending it with larger regional expertise.

Ten AEDIH organisations from Northern Finland go beyond their 40+ cutting edge services. Accessing the integrated portfolio with service sites and online platforms solve challenges of sparse population and distance from markets. Through national mandates, extensive networks, memberships and customer interfaces the services are available nationally and at EU-level.

Possible other consortium members:

- Oulu University of Applied Sciences
- BusinessOulu
- VTT Technical Research of Finland Ltd
- Kajaani University of Applied Sciences
- City of Kajaani
- CSC - IT Center for Science
- Centria University of Applied Sciences
- Lapland University of Applied Sciences
- University of Lapland

Contact

European Digital Innovation Hub for a Clean Planet

Responsible organization:	LAB University of Applied Sciences
Address:	Lappeenranta Campus, Yliopistonkatu 36, 53850 Lappeenranta, Finland
Main focus:	Cybersecurity
Main sector / application area:	Circular economy

EDIH for a Clean Planet (CPHUB) supports the digitalization of private and public organisations in their transition towards circular economy (CE). This requires collaboration of industrial actors, service providers, research institutions, educational institutions, non-profit organizations, public sector as well as policy makers. One of the main objectives is to bring cyber security (CS) close to organisations, helping them to develop new solutions on six interlinked focus areas: 1) Energy-intensive industries, 2) Sustainable food system, 3) Forest-based loops, 4) Technical and biological loops, 5) Transport and logistics, and 6) Systemic change towards CE.

CPHUB area has a concentration of CE-related companies (including Europe's most important forest industry), universities, regions and cities having a strong strategic focus on CE (i.e. Lahti: the European Green Capital 2021, Lappeenranta: European Green Leaf 2021).

Possible other consortium members:

- South-Eastern Finland University of Applied Sciences – Xamk
- LUT University
- Häme University of Applied Sciences (HAMK)

Contact

FAIR – Finnish AI Region

Responsible organization: VTT Technical Research Centre of Finland Ltd
Address: P.O. Box 1000, FI-02044 VTT FINLAND
Main focus: Artificial intelligence
Main sector / application area: Private service sector

Finnish AI Region (FAIR) is an EDIH with strong combination of the cities of Finland's capital region (Helsinki, Espoo, Vantaa) and expertise in Artificial Intelligence, where especially the Finnish Center for Artificial Intelligence (FCAI), which already is a DIH, brings the latest AI research results to the benefit of Finnish industry. The technological focus of FAIR is mainly on AI, in the domains of private service industry, health and smart cities, but also expands to expertise in cybersecurity, Extended Reality (XR) and other digital technologies. FAIR focuses its services on SMEs in need to adopt AI, forming an ecosystem of AI-adopting companies. FAIR covers the whole of Finland, with emphasis on Southern Finland. The services provided are based on the existing strengths of the partners. The leading partner, VTT, is also involved in other major EDIHs in Finland, thus creating a strong ecosystem of technologies and different customers' segments.

Possible other consortium members:

- VTT Technical Research Centre of Finland Ltd
- University of Helsinki
- Aalto University
- Metropolia University of Applied Sciences
- Haaga-Helia University of Applied Sciences
- CSC - IT Center for Science
- City of Helsinki
- City of Espoo
- City of Vantaa
- KIRA-InnoHub ry (KIRAHub)
- EIT Digital

Contact

HealthHub Finland

Responsible organization:	Turku Science Park Ltd.
Address:	Joukahaisenkatu 3 A 4, 20520 Turku, Finland
Main focus:	Health Data (incl. health domain AI)
Main sector / application area:	Health and wellbeing

HealthHub Finland is an innovation ecosystem that enables digitalization of health domain through real-world evidence and health data. The ecosystem offers multidisciplinary co-creation opportunities for European companies that create digital solutions (incl. devices) to the fields of a) health care, b) pharmaceutical development, c) medical imaging, d) diagnostics, and e) genetics.

The ecosystem consists of organizations that dynamically interact with the domain industry focusing on a) research and development, b) uptake of innovations, c) business growth, and d) cooperation. Organizations of the ecosystem include universities, basic and specialized care providers, regional development organizations – and companies (incl. SMEs) operating in the domain.

HealthHub Finland has a nation-wide presence, and strong connections to multinational stakeholder organizations, including European Connected Health Alliance, Euro Bioimaging, and European Cluster Collaboration Platform (ECCP).

Possible other consortium members:
- Auria Clinical Informatics
- Kuopio Health
- Business Tampere
- FinBB

Contact

Location Innovation Hub (LIH)

Responsible organization:	National Land Survey of Finland/Finnish Geospatial Research Institute (NLS FGI)
Address:	P.O. Box 84, 00521 Helsinki
Main focus:	The main focus is location intelligence applied with artificial intelligence, high-performance computing, cybersecurity and advanced digital skills
Main sector / application area:	Location intelligence can be applied in Agri-food, Manufacturing, Construction, Public administration, Cultural heritage, Health and wellbeing, Mobility and logistics, Private service sector, Circular economy + Location data interoperability and Precise positioning. Ultimately all of these are related to data economy.

Location Innovation Hub (LIH) is targeting to release the great potential of location data, services and technology by creating a world leading competence center providing the adaptation layer in the value chain of sector specific solutions with location. Key target sectors include built environment, bioeconomy, transport and health. Location intelligence is crucial for taking the next step utilizing AI, HPC and cyber security. Precise positioning and interoperability are key components in reaching the location intelligence.

We will support SMEs and public sector in creating location-enabled data ecosystems in these domains. Demonstrating the benefits of location intelligence through reference implementations will enable SMEs to create new innovations moving towards circular, API and data economy.

LIH will provide different testing environments for business development, skills and training, access to funding sources and to European and International markets through our networks.

Possible other consortium members:

Regional partners:
• Varsinais-Suomen liitto (Lounaispaikka)
• Tampereen kaupunkiseutu kuntayhtymä
• Oulu innovation alliance (decision pending);
Regional network may be extended.

Business partners:
• Halaus Company Oy
• Sand Hill Services Oy
• Spatineo Oy
• Gispo Oy
• IndustyHack Oy
• Arbonaut Oy
• Metsäteho Oy
• CGI Suomi Oy
• Sitowise Oy
• ESRI Finland Oy
• Mtech Digital Solutions Oy
• Aurora Snowbox Oy;
Business network may be extended.

University partners:
• Aalto
• Aalto/MeMo,
• Helsinki University.

University network may be extended.

Networking with:
• GeoForum ry
• Kira-Innohub ry
• Forum Virium Helsinki Oy
• Here (pending)
• Telia Finland Oyj
• u-blox Espoo Oy (pending)

A public sector network will be created. These are location data providers and users.

Contact

Real-Time Economy InnoHub EDIH

Responsible organization:	TIEKE Tietoyhteiskunnan kehittämiskeskus ry (Finnish Information Society Development Centre)
Address:	Pieni Roobertinkatu 9, Helsinki, 00130 Finland
Main focus:	Real-Time Economy, verified data infrastructure for ecosystems
Main sector / application area:	Private service sector

The Real-Time Economy (RTE) InnoHub works to accelerate adoption of RTE solutions among small and mid-size enterprises. We provide access to RTE infrastructure using cybersecurity, AI and HPC technologies, and provide expert innovation advisory and support services for co-developing and testing of RTE tools and services. We interconnect centralised, distributed public-private data sources with a trusted network for verified data. We are building a MyData-compliant infrastructure that interoperates with national networks, and aligned with national and EU initiatives for digital transformation. We enable companies and countries to automate their business processes, complete transactions in real-time, and access verified data for decision making and service development. These are prerequisites to wide availability of financial data to European SMEs. Our objective: to increase participation of enterprises in RTE, thus realise efficiencies within the EU valued at €200 billion annually.

Possible other consortium members:

Confirmed partners in Finland:
• Valtiokonttori (State Treasury)
• Verohallinto (Tax Administration)
• Kuntaliitto (Association of Finnish Municipalities)
• Patentti- Ja Rekisterihallitus (Finnish Patent and Registration Office)
• Findy consortium (soon to be founded Findy cooperative)
• Tieto Finland Oy
• Posti Messaging Oy
• Turku Science Park Oy
• Aalto University
• eInvoice Forum
• Why - Advisor Oy.

Possible other partners in Central Europe:
• Global Legal Entity Identifier Foundation (GLEIF), Switzerland
• Lissi (Let's initiate self-sovereign identity), Germany
• MeineSichereID, Austria

Contact

Robocoast EDIH Consortium – The EDIH of Manufacturing Export Industry (Robocoast EDIH in short)

Responsible organization: Prizztech Ltd.
Address: P.O. Box. 18, 28101 Pori, FINLAND
Main focus: Cybersecurity
Main sector / application area: Manufacturing

Robocoast EDIH´s goal is to modernize the manufacturing export industry by applying digital solutions to promote sustainable growth and competitiveness. Robocoast EDIH consists of Prizztech, University of Vaasa, VAMK, NOVIA, University of Jyväskylä, JAMK, Centria, SAMK, UC Pori, UC Kokkola, XAMK, Turku University, Turku AMK, Åbo Akademi, and Turku Science Park.

Robocoast EDIH has high-level expertise in cybersecurity and AI and know-how to support companies applying new digital technologies for developing processes, products and services. Robocoast EDIH is going to be one of the leading centers of cybersecurity in the Digital Europe Program.

Robocoast EDIH has local resources in the seven regions of Finland, where the value of the export of goods was 38% of Finland's export of goods. The value-added of industrial production was 36% of the whole country's share. 34% of Finnish manufacturing companies are in the regions where Robocoast EDIH service nodes and expert resources are located.

Possible other consortium members:

Robocoast EDIH Consortium:

1. Prizztech Ltd (Prizz): Coordination of consortium which includes administration, coordination of EDIH services, communications, and network management (local, national & EU).

2. University of Jyväskylä (JyU): Mathematical Modelling & Signal Processing, Cybersecurity, Information systems, AI, HPC. Industry focus: Exporting industry especially in paper, forestry and circular economy also technology solution providers (Campus locations: Jyväskylä).

3. JAMK University of Applied Sciences (JAMK): Cybersecurity. Industry focus: Exporting industry especially in paper, forestry, and circular economy also technology solution providers (Campus locations: Jyväskylä).

4. University Consortium of Pori (UCPori): Data Analytics & Machine Learning. Industry focus: Exporting manufacturing industry especially in robotics but also in metal industry, food industry, smart farming, healthcare technology (Campus locations: Pori).

5. Satakunta University of Applied Sciences (SAMK): Robotics, Machine Vision and AI. Industry focus: Exporting industry especially in robotics, technology metal industry including battery material industry & circular economy and machinery industry (Campus locations: Pori and Rauma).

6. Vaasa University of Applied Sciences (VAMK): AM technologies (added manufacturing & 3D printing etc.), Robotics and digitalized production technology, Smart Grids and simulation, Circular Economy. Industry focus: Exporting energy industry and manufacturing industry (Campus locations: Vaasa).

7. Novia University of Applied Sciences (NOVIA): Automation and robotics, applied AI, IoT, big data, and analytics. Industry focus: exporting industries, especially energy industry and manufacturing industries. Maritime technology and autonomous maritime operations (Campus locations: Vaasa and Turku).

8. University of Vaasa (UVA): Wireless Telecommunications, Resilience Energy Networks, Cybersecurity, and Smart Grids. Industry focus: Exporting industry especially in the energy industry, robotics, and machine industry (Campus locations: Vaasa and Seinäjoki).

9. Centria University of Applied Sciences (Centria): Robotics, Cybersecurity, and Circular economy. Industry focus: Exporting industry and woodworking Industries (Campus locations: Kokkola, Pietarsaari, and Ylivieska).

10. Kokkola University Consortium Chydenius (UC Kokkola): Wireless Sensor Networks & IoT, SmartManufacturing: Smart Materials and Circular Economy. Industry focus: Exporting industry especially in robotics, chemical industry including battery materials (Campus locations: Kokkola)

11. University of Turku (UTU): AI Business Academy, AI with a strong focus on ethics, Industry 4.0 technologies, Additive manufacturing, NLP, ML and technologies related to autonomy, innovative food chains, battery, and energy, smart city technologies, material technology (Campus locations: Turku, Pori, and Rauma)

12. Turku University of Applied Science (Turku AMK): XR in manufacturing, Cybersecurity for IoT-systems, 5G Test Network, Gaming and experience technologies, 3D printing, battery technologies, laser/welding / autonomous/digital manufacturing, Computational Engineering and Analysis, pharmatech (Campus locations: Turku and Salo)

13. Åbo Akademi (ÅA): Edge computing and IoT, Mission-critical software Industrial internet, Lidar, autonomous vehicles, Smart Shipping, AI Maturity analysis, Embedded systems, Sensor technologies, AI, Computational fluid dynamics, Process modeling, optimization and control, Clean and circular economy technologies, Project Management, Chemical engineering (Campus locations: Turku and Vaasa)

14. Turku Science Park Ltd (TScP): Connecting the public, private and research & education with a focus on Clean-, Maritime-, Experience-, Health and Technologies, consultancy services for SME's on innovation management, scaling up, internationalization and public & private funding, provision of Enterprise Europe Network services and management of regional co-creation activities and growth programs. (Campus locations: Turku)management, scaling up, internationalization and public & private funding, provision of Enterprise

15. South-Eastern Finland University of Applied Sciences (XAMK): Cybersecurity. Industry focus: Forest, the environment and energy, Sustainable wellbeing, Digital economy, Logistics, marine technology, and transport (Campus locations: Mikkeli, Kouvola, Kotka, Savonlinna).

Contact

SIX Manufacturing EDIH

Responsible organization:	Tamlink Ltd.
Address:	Hermiankatu 6 A, P.O. BOX 140, 33720 Tampere
Main focus:	Advanced digital and sustainable manufacturing & manufacturing data space (AI, cyber and HPC, robotics, and advanced digital skills as tools)
Main sector / application area:	Manufacturing

Sustainable Industry X (SIX) Manufacturing EDIH advances the discrete manufacturing SMEs on and forward the sustainable digitalization journey - in an industry-driven way.

Our aim is to supercharge the performance of the Finnish manufacturing industry through national and international collaboration, operational excellence, knowledge, and innovation. The EDIH network includes the best manufacturing and digitalization knowledge, ecosystems, and infrastructures.

SIX Manufacturing EDIH's philosophy is rooted in the concept of a seamless, supported customer journey and building the SMEs' digital competencies step by step in an agile way. Services have been co-created based on validated needs with the objective to enable companies to get the most out of the advanced technologies.

Scalability is in SIX Manufacturing EDIH's DNA. It is an open platform, welcoming new collaborators, to make sustainable manufacturing the cornerstone of our wellbeing.

Possible other consortium members:

- DIMECC Oy
- Into Seinäjoki
- Jyväskylä University of Applied Sciences (JAMK)
- Seinäjoki University of Applied Sciences (SeAMK)
- Tampere Adult Education Centre (TAKK)
- Tampere Region Economic Development Agency Business Tampere
- Tampere University (TAU)
- Tampere University of Applied Sciences (TAMK)
- Tampere Vocational College (Tredu)
- University of Vaasa (Univaasa)
- VTT Technical Research Centre of Finland (VTT)
- Ylivieska Robotics Lab, Centria University of Applied Sciences (Centria)

Contact

WellLake EDIH

Responsible organization:	City of Jyväskylä, Business Development Unit, Business Jyväskylä
Address:	Business Jyväskylä, Hannikaisenkatu 17, 40100 Jyväskylä, Finland
Main focus:	Artificial intelligence
Main sector / application area:	Health and wellbeing

WellLake EDIH aims to accelerate digital innovations, enhance digital skills, and support digital transformation in the combined business segment of health promotion, sports and wellbeing.

Health and wellbeing services and technologies are among the fastest growing businesses globally, and health related costs are among the largest expenses for the public sector. As the current COVID-19 crisis has highlighted, there is an urgent need for resilient and safe digital solutions for the said sector. By approaching health and wellbeing not only from the clinical perspective but also through e.g., physical activity, prevention and rehabilitation, we can reach towards optimal human performance while lightening the health care system's load.

Together with a committed and globally oriented network, WellLake provides its customers with quality services supporting digital innovations and R&D, enhancing innovation capabilities and digitalisation regionally, nationally and on European level.

Possible other consortium members:

Currently WellLake EDIH has the following organisations involved, with varying roles (e.g. Service Provider, Key Partner, Network Organisation):

Public organisations & NGOs:
• Central Finland Chamber of Commerce
• Central Finland Health Care District
• Lahti Region Development LADEC Ltd
• Regional Council of Central Finland
• Suomen Yrittäjät, Central Finland
• Jyväskylän Yritystehdas - The Startup Factory
• South Karelia Social and Health Care District
• UNA Oy

Academic & Research Organisations:
• JAMK University of Applied Science
• University of Jyväskylä
• LAB University of Applied Science
• LUT University
• Jyväskylä Educational Consortium Gradia
• EduFutura
• LIKES Research Centre for Physical Activity and Health
• Vierumäki Resort & Sport Institute of Finland
• VTT Technical Research Centre of Finland

Companies & Corporates:
• ECCA Nordic Ab.
• Osuuskunta Viexpo
• Atostek Oy
• Gettingbetter Oy
• HealthFOX Oy
• Nortal Oy

• Medtronic Finland Oy
• Innovestor Ignite Oy
• Gesund Partners Oy
• Kasvu Open Oy
• Sports Research And Development Srd Oy (in collaboration with KIHU - Research Institute for Olympic Sports
• Suomen Terveystalo Oy
• Nevustech Oy
• Vierumäen Lepoaika Oy

Ecosystems:
• AI JKL
• Jyväskylä Game Industry Hub - Peliosuuskunta Expa
• Central Finland Health and Wellbeing Ecosystem (KEHO)
• European Connected Health Alliance (ECHAlliance)

Contact