



HealthHub Finland Services

by Region

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HHFIN Joint Services

Test-before-invest

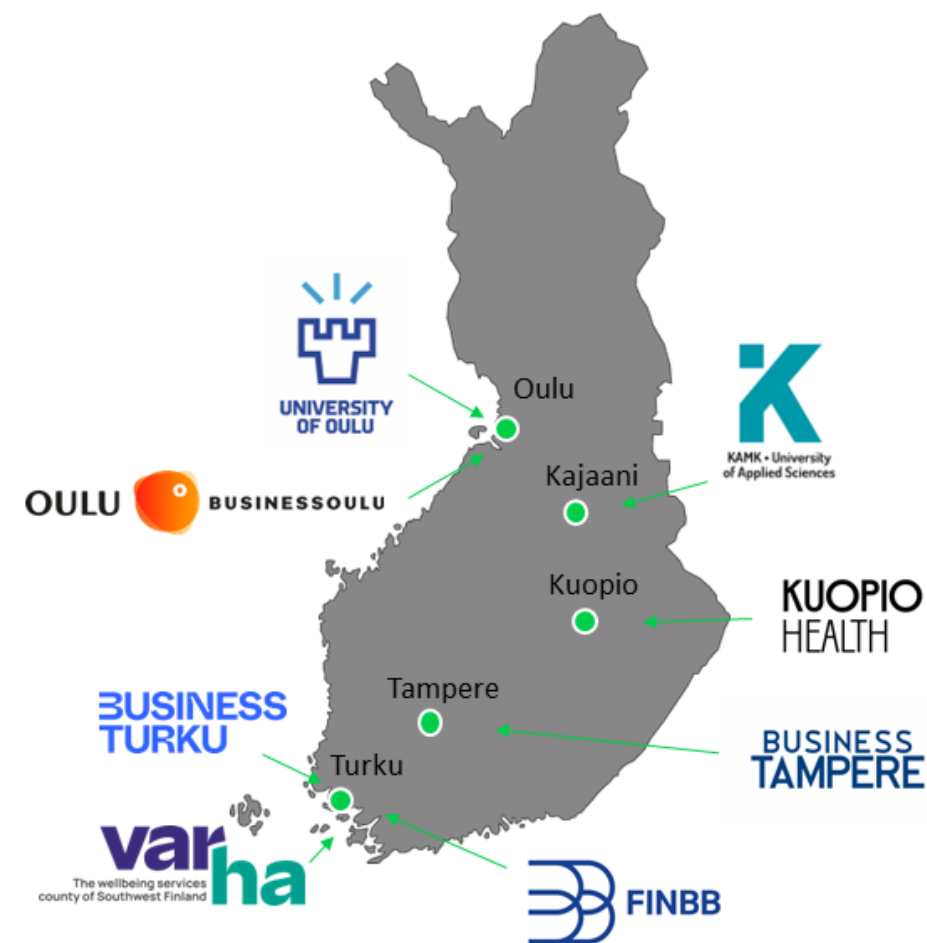
- Digital Maturity Assessment (DMA)
- HealthHub clinic pop-up
- HealthHub expert (group) consultation
- EU Act assessment tool (AI & Data act) (upcoming)

Skills and Training

- Hytki opas

Innovation Ecosystem and Networking

- Access to showcasing
- Networking events



Digital Maturity Assessment (DMA)

The Digital Maturity Assessment (DMA) measures the overall digital maturity level of EDIH customers (company or PSO) over 6 dimensions.

Output:

1. Evaluation of company's level in overall digital maturity, digital business strategy, digital readiness, human-centric digitalisation, data management, automation & artificial intelligence, and green digitalisation.
2. Comparison against other SMEs in the industry, region and Europe.

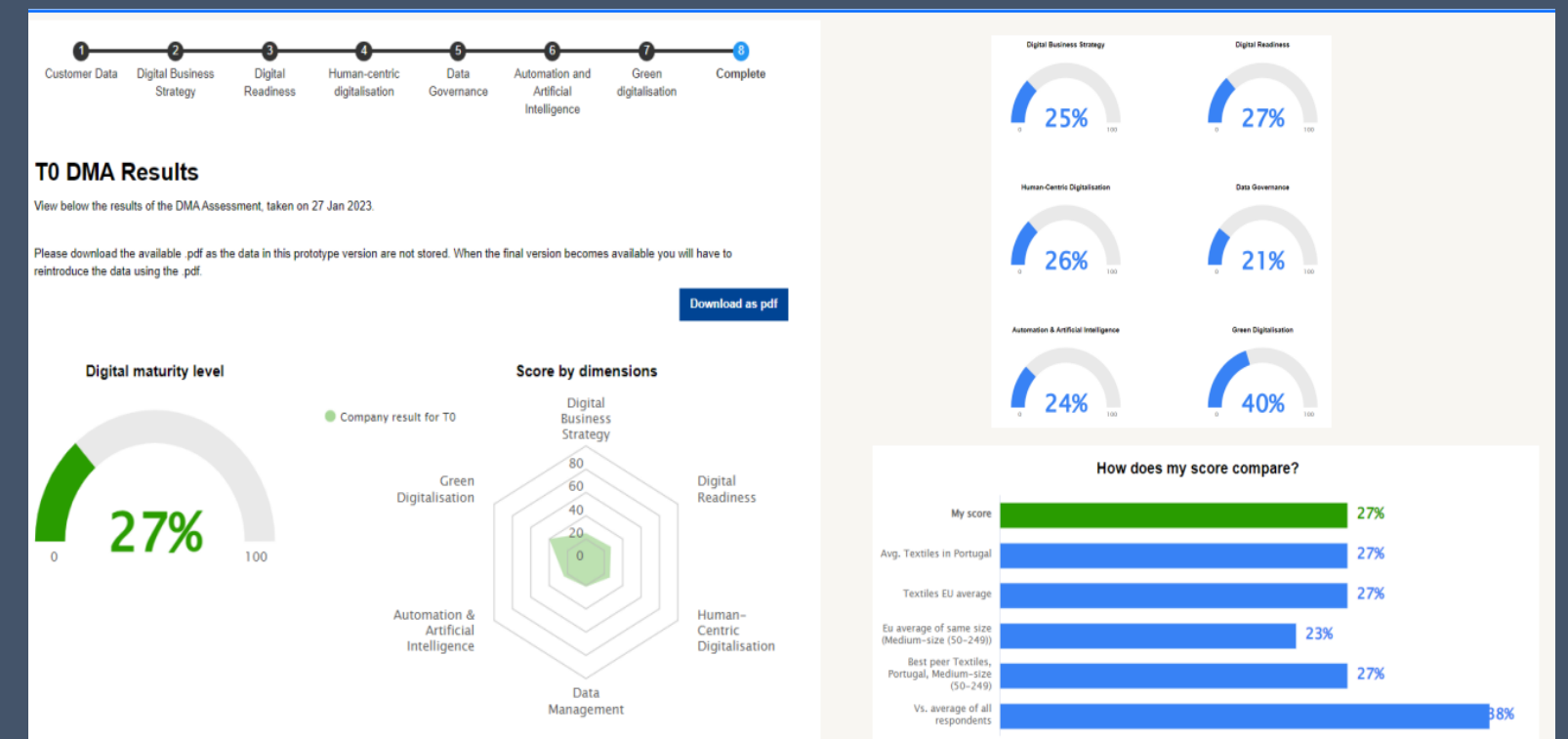
Target audience: SMEs and Public Sector entities

Price list/pricing model (if applicable): Free

Service provider: HealthHub Finland EDIH

Contact information: info@healthhubfinland.eu

Website: healthhubfinland.eu/services/dma-tool/



HHFIN Pop-up Clinic

Free consultation clinics, including needs analysis and service matching to create a unique service package for the customer. The advisory group is composed of professionals with expertise in areas such as clinical research, commercialisation, data and regulations, matchmaking and patient engagement, design and development.

Target audience: SMEs

Price list/pricing model (if applicable): Free

Service provider: HealthHub Finland EDIH

Contact information: info@healthhubfinland.eu

Website: healthhubfinland.eu/services/healthhub-finland-edih-clinic/

Output example:

- Evaluation of testbed need (Test-before-invest)
- Other services
 - Skills and training
 - Support to find investments
 - Innovation ecosystem and networks



HHFIN Services Turku Region

**BUSINESS
TURKU**



About

Turku has a long tradition of excellence in drug development and diagnostics. The region is also a pioneer in digital and data-driven health technologies.

Test-before-invest

- Auria Clinical Informatics (DIH) (Varha)
- Access to Biobank samples and data Fingenious (FINBB)
- Research plan assessment and data evaluation (Varha)
- Synthetic Health Data Testbed (upcoming) (Varha)

Skills and Training

- Artificial intelligence & cybersecurity MOOC (2 ECTS)
- Introduction to Programming, University of Turku (5 ECTS)
- Statistical Data Analysis, University of Turku (5 ECTS)
- Acquisition and Analysis of Biosignals, University of Turku (5 ECTS)
- Data Analysis and Knowledge Discovery, University of Turku (5 ECTS)

Support to find investment

- Facilitating Access to Investment and Venture Capital (Investment Readiness Process -programme)
- Financial instruments awareness raising (Free consultation sessions)

Innovation ecosystem and Networking

- HealthHub ProHealth Growth Programme (Mentoring)
- HealthHub Brokering Service (Enterprise Europe Network)
- HealthHub Researcher Network (upcoming) (FINBB)

Auria Clinical Informatics (DIH)

Biostatistical, AI and visual analytics environment with access to structural, textual, signal and imaging data that originates from the clinical processes.

Target audience: SMEs and researchers

Price list/pricing model (if applicable): EDIH subsidized up to 80%

Service provider: Varha

Contact information: lotta.ekholm@varha.fi

Website: www.auria.fi/tietopalvelu/en/index.html

Customer case example:

Customers

- in-house researchers
- academic researchers from universities
- pharma companies
- clinical research organizations (CROs)
- legal entities, such as EMA, Fimea and Findata, the Finnish data permit authority

Service provided

- insight and services for regional, national and EU-level
- scientific research
- development activities
- innovation work
- teaching

Fingenious® Services

Digital portal providing a one-stop window to the samples and biodata of Finnish public biobanks, enabling research and development based on real healthcare data, and by digitally recontacting sample donors for follow-up studies.

Target audience: Researchers from academia and industry

Price list/pricing model (if applicable): EDIH subsidized up to 80%

Service provider: FINBB

Contact information: johanna.makela@finbb.fi

Website: site.fingenious.fi/en/

Customer case example:

Risk Profiling Provides Tools to Predict Outcomes of Liver Disease at Population Level.

This study investigates whether the incidence and progression of different forms of liver disease can be predicted at the population level. Clinical measurement, questionnaire, genome and biomarker data collected in large Finnish cross-sectional population surveys were used in combination with national health registry data for analyses.

All FINBBs public customer use cases can be found at:
site.fingenious.fi/en/use-cases

HHFIN Services Oulu Region



About

The Oulu region is the second-largest health technology hub in Finland, and OuluHealth ecosystem is a forerunner in digital health and digital health is a cross-cutting theme in the city covering education, research and unique testing environments for new health innovations.

Test-before-invest

- OuluHealth Labs services
 - Oamk SimLab
 - OYS TestLab
 - Pohde WellbeingLab
 - Medical Imaging Teaching and Test Laboratory (MittLab)
- 5G Test Network Finland (DIH)
- 6G Flagship Experimental Platform
- DigiHTA

Skills and Training

- Bioinformatics and data analysis (25 ETCs)
- DigiHealth training module (25 ECTs)
- Introduction to Artificial Intelligence (5 ECTs)
- Principles of Machine Learning in Medicine (5 ECTs)
- Various courses as Open University studies (<https://joy oulu.fi/en/course-offering>)
- Various thesis work topics (Bachelor, Master & PhD -degree)

Innovation ecosystem and Networking

- HealthHub Best Practices and Experience Sharing
- Arctic Drone Labs (DIH)
- 6G Flagship / Super IoT (DIH)

Oulu Health Labs

A co-creation platform that enables cooperation between healthcare providers, social care providers, research and innovation organizations and companies.

Target audience: SMEs and Business developers

Price list/pricing model (if applicable): EDIH subsidized up to 80%

Service provider: Business Oulu

Contact information: jenni.konttila@businessoulu.com

Website: ouluhealth.fi

Customer case example:

Monidor's innovative testing at OAMK SimLab

By testing their remote monitoring software in a simulated environment, Monidor can fine-tune their product to meet the real-world needs of healthcare professionals.



MittLab

MittLab - Medical Imaging Teaching and Test Laboratory addresses the high-resolution imaging needs of industry and research with the right attitude and utilizes advanced X-ray technology cost-effectively. The imaging produces precise and comprehensible images without damaging the product.

Target audience: SMEs and Business developers and research

Price list/pricing model (if applicable): EDIH subsidized up to 80%

Service provider: University of Oulu

Contact information: jarmo.paakkonen@oulu.fi

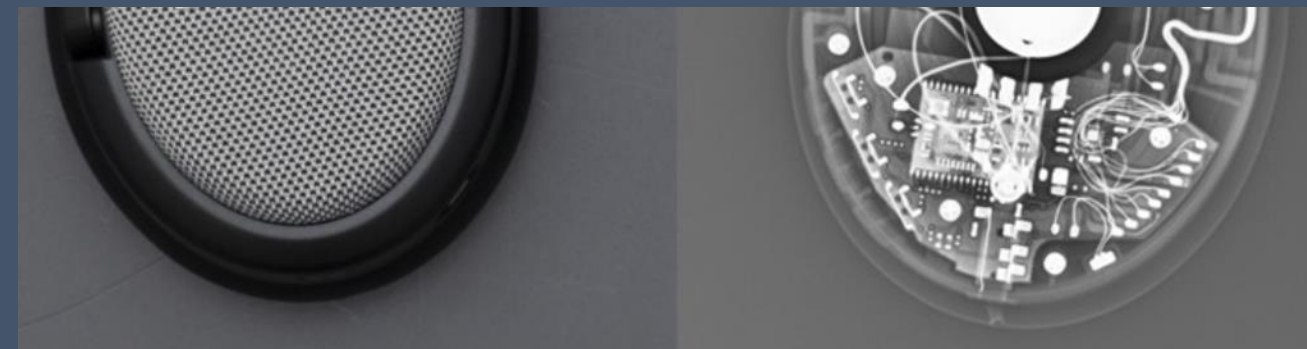
Website: <https://www.oulu.fi/mittlab-en>

High-resolution imaging services

MittLab offers wide selection of tools for product development, research, teaching, innovation and testing in the field of medical imaging.

The laboratory's physical and virtual equipment is particularly suitable for quality assurance, product development, and research applications.

Image your products independently and take advantage of imaging opportunities on your own or utilize the Expert-performed imaging. We will guide you in using the equipment for imaging analysis or our experts will prepare an analysis of the results for your needs.



5G Test Network

5GTN fills the gap between laboratory-based 5G and beyond testing environments and commercial network deployments, offering trialing support and tailored infrastructure configurations for telecom and vertical industries and the scientific community.

Target audience: SMEs and Business developers and research

Price list/pricing model (if applicable): EDIH subsidized up to 80%

Service provider: University of Oulu

Contact information: eero.j.huttunen@oulu.fi

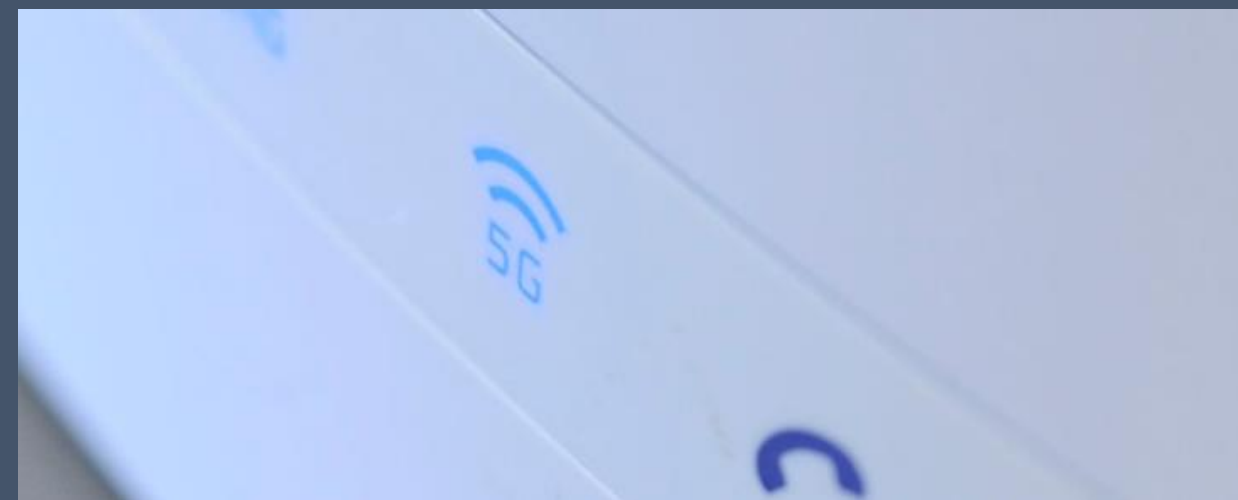
Website: <https://5gtn.fi/>

5GTN Services:

Integrated multi-site 5G and beyond technology and services test network for telecom and vertical industries and R&D organizations.

Technologies and innovations related to beyond 5G network and radio enablers, cyber security, utilization of AI and business models.

Develop technologies and solutions for vertical industries; Smart Industry, Smart Cities and Living, Smart Mobility and Smart Health and Wellbeing



We Are 6G Flagship

6G is the enabler for data-driven future society.

A co-creation platform that enables 6G network use in innovation and experimental cooperation between research organizations and companies.

Target audience: SMEs and Business developers and research

Price list/pricing model (if applicable): EDIH subsidized up to 80%

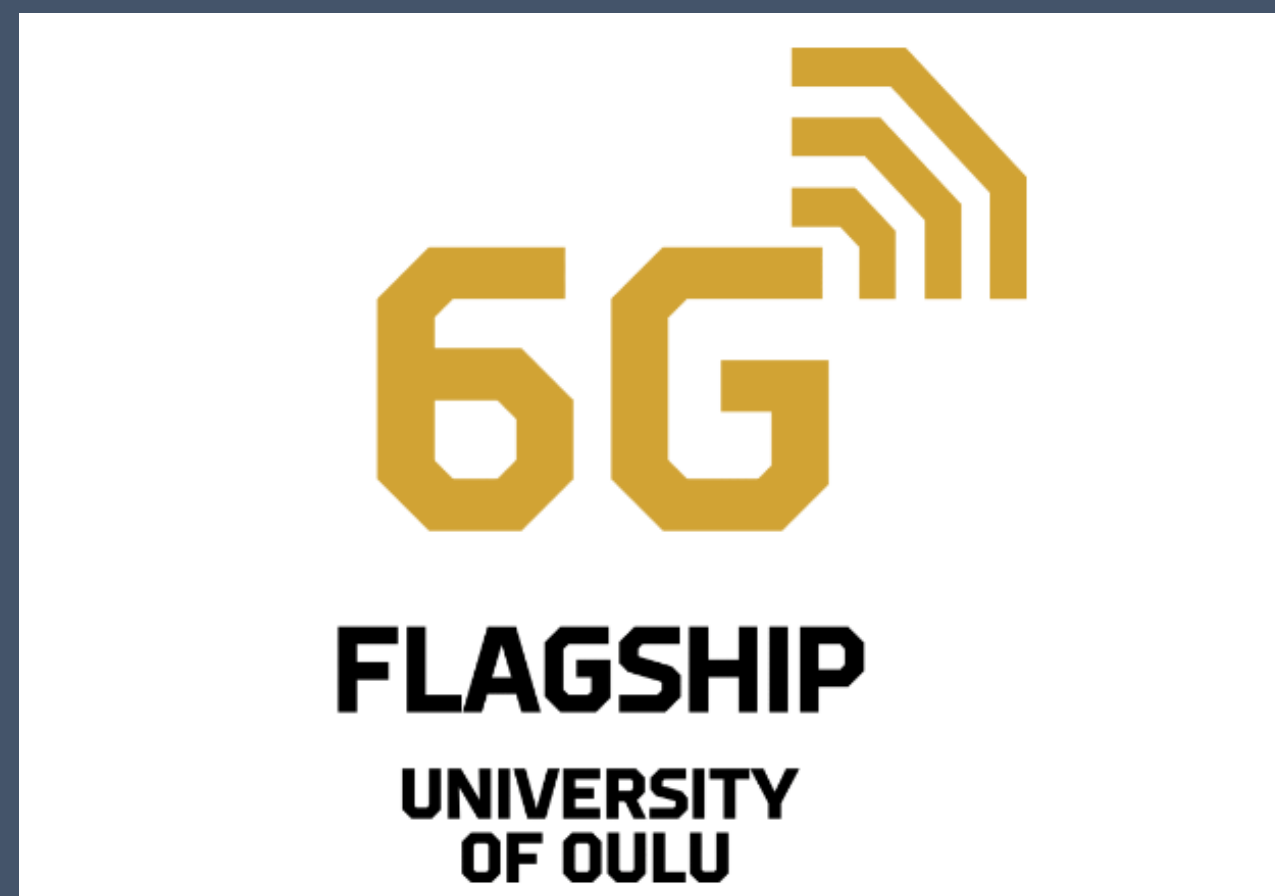
Service provider: University of Oulu

Contact information: eero.j.huttunen@oulu.fi

Website: <https://www.6gflagship.com/>

6G Flagship program

Offers integrated 6G technology and experimental platform services and test network for telecom and vertical industries and R&D organizations.



FAB Lab Oulu

In Fab Lab anyone can design, quick-prototype, and fabricate their own products and hardware. Fab Lab equipment includes laser cutters, 3D printers, 3D scanners, vinyl cutters, a CNC milling machine, and electronic fabrication equipment.

Target audience: SMEs and Business developers and research

Price list/pricing model (if applicable): EDIH subsidized up to 80%

Service provider: University of Oulu

Contact information: eero.j.huttunen@oulu.fi

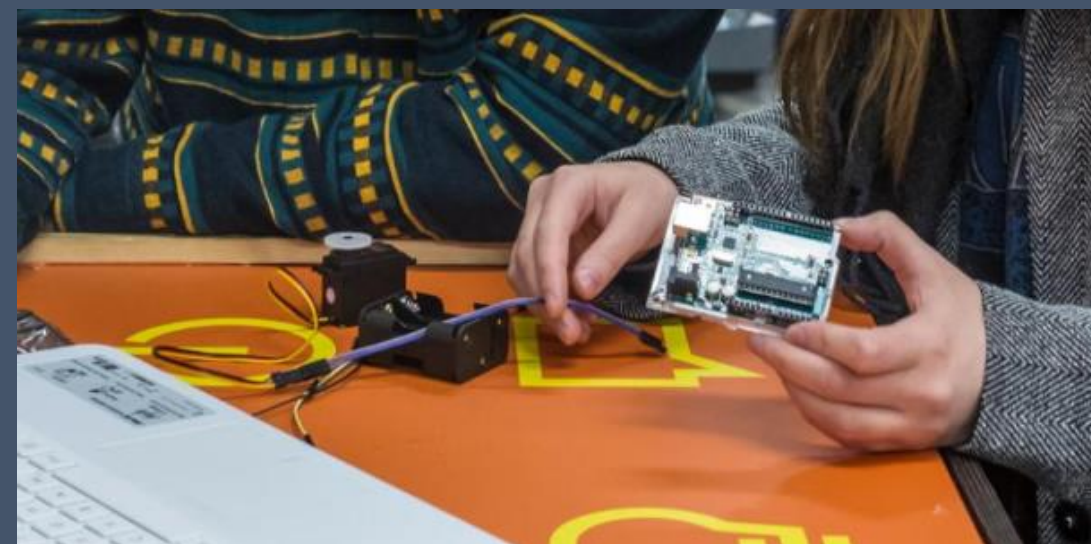
Website: <https://www.oulu.fi/en/university/fab-lab-oulu>

FAB Lab Oulu services

Offers fabrication laboratory with versatile capability for digital fabrication.

Fab Lab provides access and support for multiple equipment for fabrication. You can utilize Fab Lab equipment to fabricate your own prototypes or meet the requirements for different research and educational projects.

Fab Lab Oulu organizes different courses, events, workshops, projects, and training activities related to digital fabrication.



Oulu Skills and Training

Skills and training services provide education and training services for companies and other organizations through health-data-related courses, customized programs and online courses & webinars.

Target audience: SMEs, Business and other organizations

Price list/pricing model (if applicable): EDIH subsidized up to 80%

Service provider: University of Oulu

Contact information: kaisa.still@oulu.fi

Website: www.oulu.fi

Course examples

University level health-data-related courses:

Bioinformatics and data analysis (25 ECTS)

DigiHealth training module (25 ECTS)

Introduction to Artificial Intelligence (5 ECTS)

Principles of Machine Learning in Medicine (5 ECTS)

Various other courses by JOY

<https://joy.oulu.fi/en/course-offering>

Various thesis work levels (Bachelor, Master & PhD -degree)



HHFIN Services Tampere Region

**BUSINESS
TAMPERE**

**HEALTH
TAMPERE**



Test-before-invest

- CIVIT, Centre for Immersive Visual Technologies
- Health and Assistive Technology (HeAT) Laboratory
- TAMK Virtual Lab for Social and Health Care
- Biobank of the Pirha Wellness County
- REGEA Cell and Tissue Center
- Tampere Center for Skills Training and Simulation
- Visaxion (vision lab)

Innovation ecosystem and Networking

- Challenge roadmap

About

The Tampere region is known for expertise in health data analysis and simulation, tissue engineering, regenerative medicine, stem cell research, and vaccine research.

CIVIT – Centre for Immersive Visual Technologies

CIVIT's main purpose is to provide expertise and facilities for studying and utilizing emerging visual technologies and the related new user experience with the aim to enhance the existing and to develop new scientific and industrial applications where advanced visualization is a must.

Target audience: SMEs and Business developers

Price list/pricing model (if applicable): EDIH subsidized up to 80%

Service provider: Business Tampere

Contact information: ilona.Raitakari@business tampere.com

Website: <https://civit.fi/>

Customer case examples:

- Research and Proof-of-Concept services, facilities and expertise in the sectors of visual content creation for three-dimensional visual representation of or a moving person
- Volumetric capture studio, VR/AR and other immersive gear systems, range sensors and LIDARs
- Multicamera and depth sensors setups, visualisation of complex visual 3d-data
- Depth-assisted virtual camera systems, digital holograms
- **Customer reference:** Machine Understanding of Mother-Infant Interaction



HeAT – Health and Assistive Technology Laboratory

Laboratory with a wide set of research-quality equipment especially for measuring human physiological signals and 3D motion, and health data analysis (operated by Tampere University and Tampere University of Applied Sciences).

Target audience: SMEs and Business developers

Price list/pricing model (if applicable): EDIH subsidized up to 80%

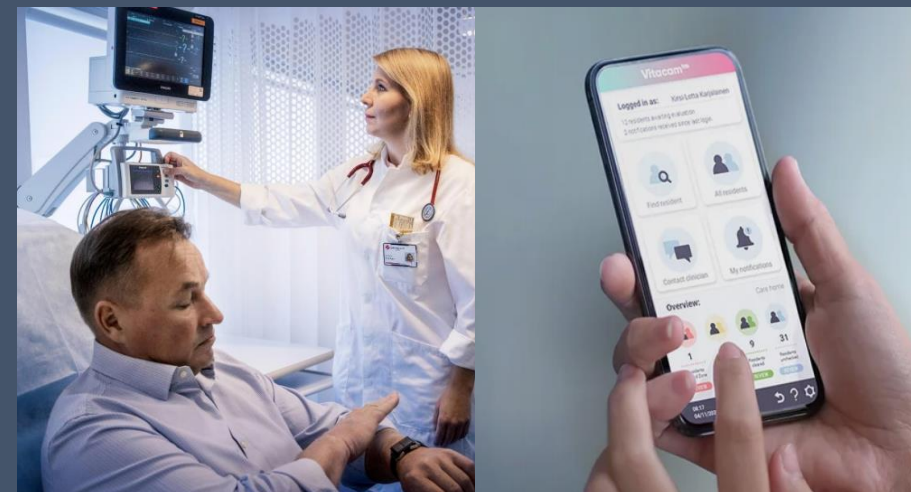
Service provider: Business Tampere

Contact information: ilona.Raitakari@business tampere.com

Website: www.tuni.fi/en/research/heat-health-and-assistive-technology

Customer case examples:

- Testing a company product against a reference devices or testing the effect of an intervention with patients and/or healthy participants in collaboration with Tampere University Hospital
- Testing against medical device standard (not an accredited lab) e.g. ECG standards, SpO2 standard, EMC
- Evaluation of an existing device design
- Development of full embedded prototype systems including algorithm and software development
- **Customer references:** PulseON: arrhythmia monitoring system, Vitacam: Oxygen saturation measurements through video



TAMK virtual lab

Test environment for testing digital and intelligent technologies related to basic health care, safe and well-performing home environment, remote care and rehabilitation, telemedicine, and mobile healthcare services, operated by Tampere University of Applied Sciences.

Target audience: SMEs and Business developers

Price list/pricing model (if applicable): EDIH subsidized up to 80%

Service provider: Business Tampere

Contact information: Ilona.Raitakari@business tampere.com

Website: sites.tuni.fi/vlabforhealth/

Customer case example:

- Usability evaluation and usability testing in simulated (test bed) and real (Living Lab) environments together with health care providers and end-users
- Service development with service design tools and product development services for health wellness technology products and software
- Health and well-being technology piloting and trials, implementation advice and user training, as well as equipment lending.
- **Customer references:** Meditas exoskeletons to reduce the physical strain of health care work, senior and children rehabilitation and exercise games



Tampere Center for Skills Training and Simulation

Facilities designed for learning clinical skills and testing for medical device companies, as well as simulation rooms where medical students, students in health-care-related fields and professionals can work on practical skills (Pirkanmaa Hospital District, Tampere University, and Tampere University of Applied Sciences).

Target audience: SMEs and Business developers

Price list/pricing model (if applicable): EDIH subsidized up to 80%

Service provider: Business Tampere

Contact information: Ilona.Raitakari@business tampere.com

Website: sites.tuni.fi/taitokeskus-en/

Customer case example:

- Testing new healthcare innovation in the simulation rooms that mimic real-life hospital wards, emergency rooms, intensive care units, operating rooms and maternity wards.
- Develop and assess related new work-flows and processes to improve patient safety with multidisciplinary teams that are responsible for providing comprehensive care to patients.
- **Customer reference:** Injeq: spinal needle for new lumbar puncture technique



Visaxion vision lab

Testing and innovation environment developed specifically for operators in the field of eye and vision business (operated by Tampere University).

Target audience: SMEs and Business developers

Price list/pricing model (if applicable): EDIH subsidized up to 80%

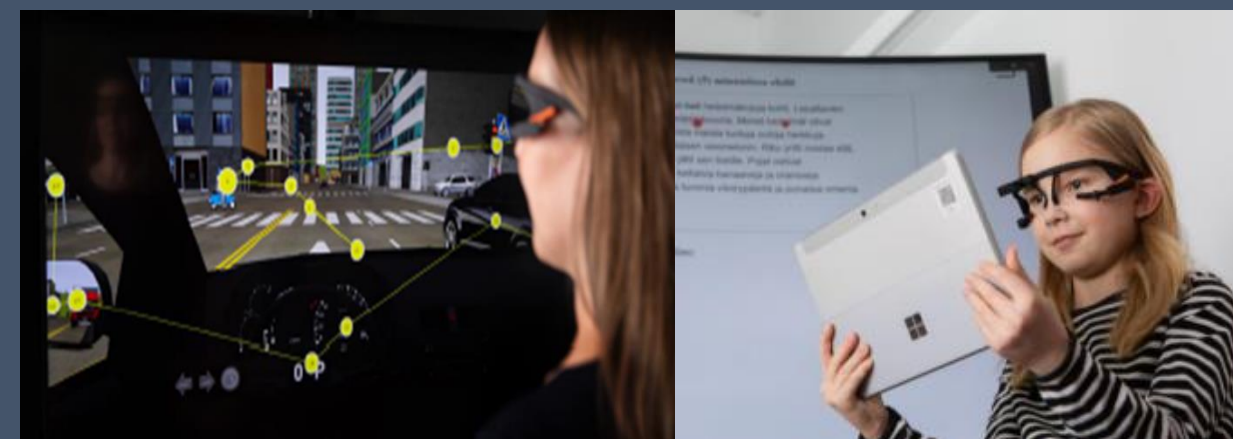
Service provider: Business Tampere

Contact information: Ilona.Raitakari@business tampere.com

Website: www.visaxion.fi/english

Customer case example:

- Work performance & capability, occupational ergonomics, optical aids, lightning and IT solutions as part of occupational vision.
- Functional capability, use of vision, optical aids, driving health, perception and reaction time while driving and traffic in general.
- Usability testing of ophthalmic drugs, dosing technologies, contact lenses and optical aids.
- Usability of user interfaces and technical solutions.
- **Customer references:** Various vision related product developers and researchers



HHFIN Services Kuopio Region

KUOPIO
HEALTH



DiGiCENTERS
THE DIGITAL INNOVATION HUB OF NORTHERN SAVO REGION

About

Kuopio Health is a committed network enhancing wellbeing, nutrition and food industry, med-tech knowledge, know-how and research.



Test-before-invest

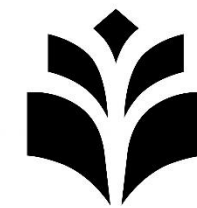
- Digicenter Northern-Savo
- Kuopio Living Lab

Support to find investment

- Speed dating with investors (annually in Tahko Ski Lift Pitch event)

Innovation ecosystem and Networking

- Access to Kuopio Health ecosystem



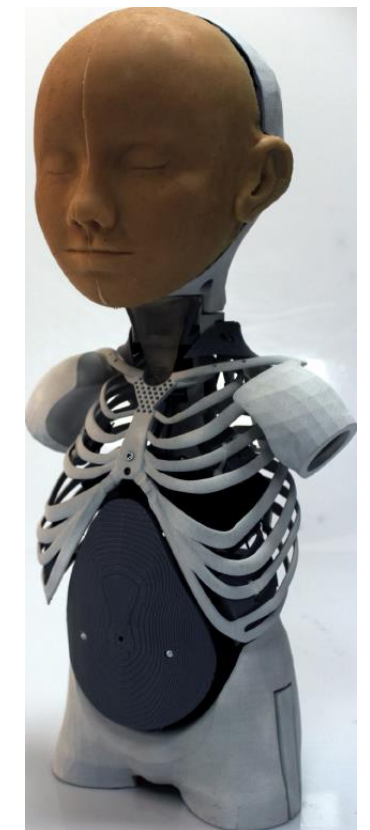
UNIVERSITY OF
EASTERN FINLAND

Excellence in integrating
advanced AI solutions to
diverse products to elevate
businesses for global markets

SAVONIA

University of Applied Sciences

- 3D printing
- XR/VR laboratory
- EMC testing



Co-funded by
the European Union

Digicenter Northern-Savo

Artificial intelligence, 5G/NB-IoT, and usability testing environment (operated by Savonia University of Applied Sciences and University of Eastern Finland)

Target audience: SMEs and Business developers

Price list/pricing model (if applicable): EDIH subsidized up to 80%

Service provider: Kuopio Health

Contact information: kimmo.Solehmainen@kuopiohealth.fi

Website: www.digicenterns.fi/en/home/

Customer case example:

CASE 1: Wellpro

Product: Science based support software to form healthy habits through small actions

EDIH service: Make it AI driven, and implement conversational AI to the user interface

Benefit: Head to global consumer markets



CASE 2: ThingLink

Product: Online training platform for healthcare

EDIH service: Make the training creation AI driven

Benefit: No. 1 platform for realizing trainings in healthcare and any other industry

thinglink..



HHFIN Services Kajaani Region



Test-before-invest

- AI industrial applications
- AIKA Arctic Data Intelligence and Supercomputing Ecosystem (LUMI) (direct easy access to supercomputing)
- Cybersecurity tests and consultation (upcoming)

Skills and Training

- Digital strategy management training

Support to find investment

- Business model and value creation development
- Investment access services

About

Kajaani is home to CSC's supercomputers which KAMK helps companies utilize and get to know what supercomputing can provide them, how to collect data, or how to do data analytics.



Co-funded by
the European Union

AIKA Ecosystem Services – KAMK

AIKA DIH – Digital Innovation Hub is an ecosystem that offers companies support for the digital business transition and the development of new innovative solutions. Through the partners operating in the AIKA ecosystem, companies can benefit from the latest digital technologies such as artificial intelligence (AI), supercomputing and data analytics in business and product development.

Target audience: SMEs, technology startups

Price list/pricing model (if applicable): determined by case

Service provider: KAMK, CSC IT Centre for Science

Contact information: anas.alnatsheh@kamk.fi

Website: aikaecosystem.com

Customer case example:

liwari Tracking Solutions Oy

- The end customer's application area for the company's service or product is classified in test before invest service at AIKA ecosystem.
- The technologies are image recognition, neural networks, programmatic positioning.



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