Business Helsinki Digital Innovation Ecosystem

Development priorities and European Digital Innovation Hub FAIR

Kalle Toivonen, Senior Advisor

Helsinki

Economic development objectives

1. Business and innovation **environments** that support business competitiveness are strengthened

2. **Entrepreneurship and businesses in Helsinki are growing, renewing and diversifying**

3. Helsinki residents are more likely to be employed and companies have access to **sufficient skilled labour**

4. Helsinki's appeal as a city of **sustainable tourism, culture** and events is strengthened

5. Becoming an increasingly attractive location for **international talent, business and investment**

6. **Developing business that solves globally significant challenges**

7. Strengthening the **vitality of the city centre**

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TESTBED HELSINKI

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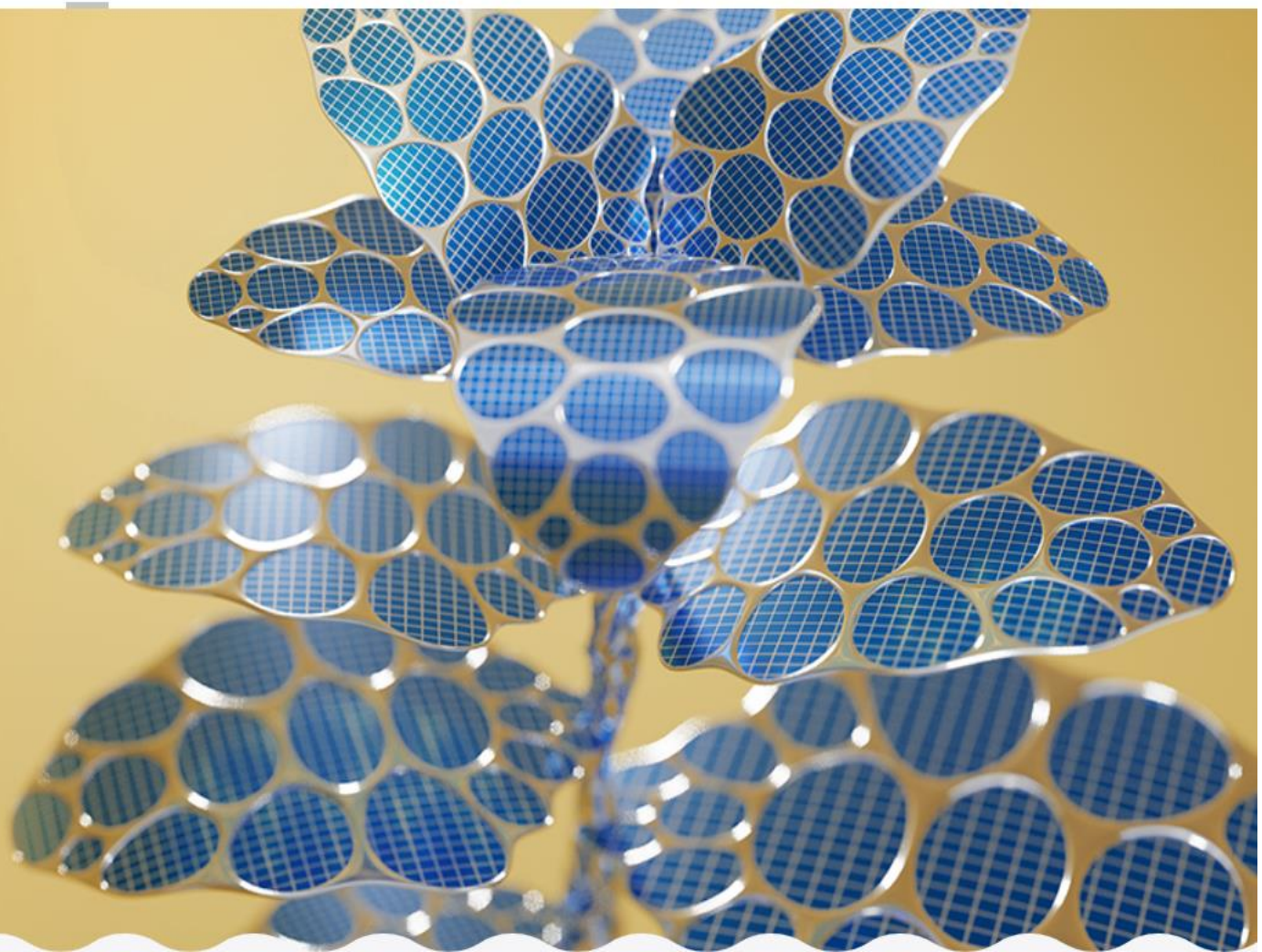
EdTech Smart Mobility Built Environment Circular Economy Health & Wellbeing Open Calls Propose Your Idea FAQ Contact

Welcome to explore experimentation opportunities in Helsinki!

Through the Testbed Helsinki website you can comprehensively find development and experimentation opportunities for new products and services offered by the City of Helsinki. The site is specifically aimed at companies and RDI actors. The key content areas of our testing platform activities are EdTech, Smart Mobility, Built Environment, Circular Economy and Health & Wellbeing.

Read more



Helsinki Testbeds

City level co-ordination and development by Economic Development Department

Communications

Co-development methods

Cooperation with city divisions
- Innovation Agents

Cooperation with companies

Thematic Testbeds

Health & Wellbeing

Kalasatama Health&Wellbeing Centre

Clinical Trials

Digital homecare

Kustaankartano Senior Centre

Preventive Health & Wellbeing

EdTech

Schools (elementary and secondary education)

Entire City as a Learning Environment

Helsinki Education Hub

Libraries

Museums

Built Environment

Construction & Built Environment

Energy Efficiency

Renewable Energy

Circular Economy

Air Quality

Smart Mobility

Jätkäsaari Mobility Lab

Digitalisation & Data-driven Solutions

IoT
5G
AI
3D City Models

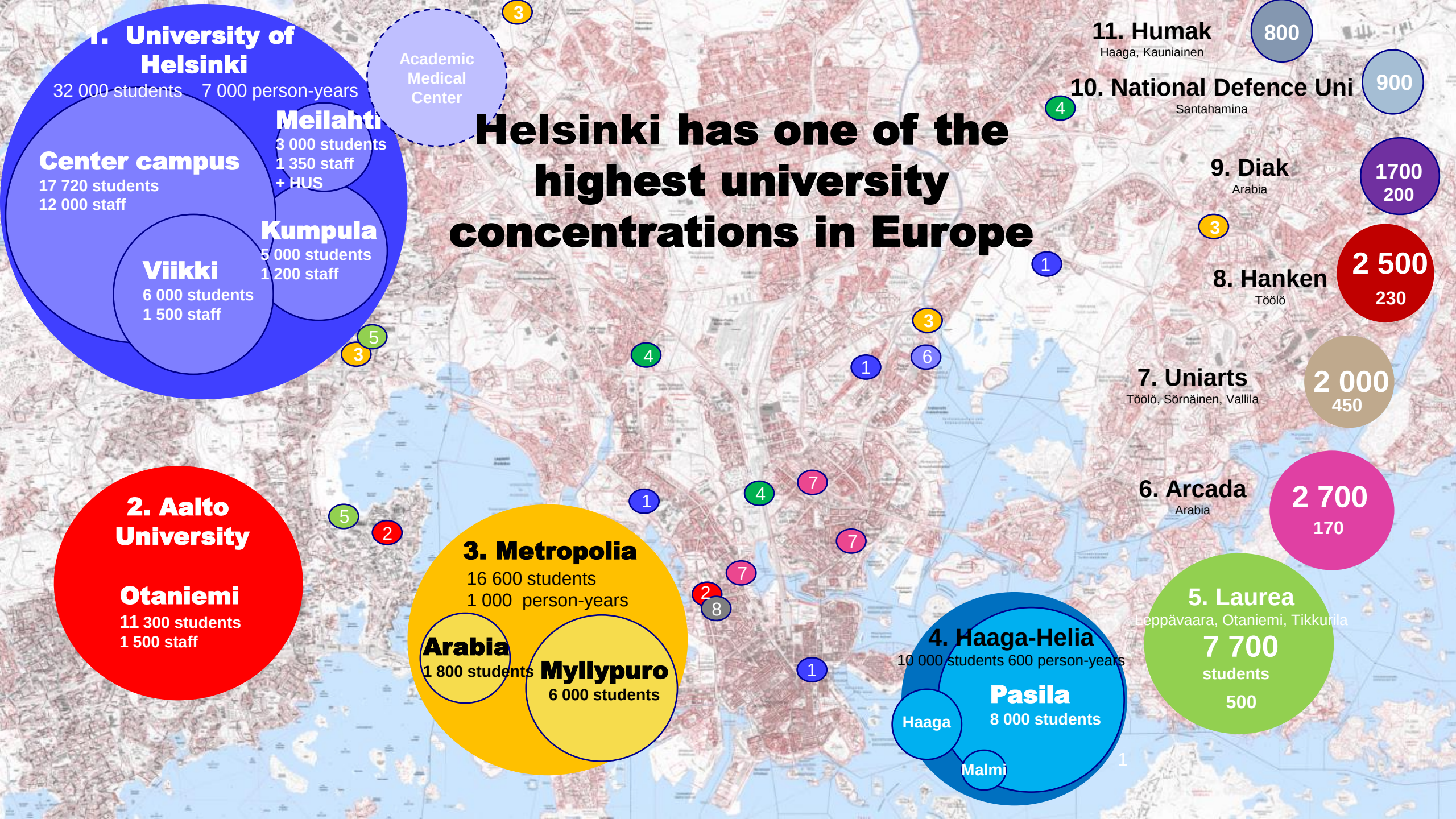
Campus incubators powered by Helsinki

Goals

Together with our partners, we aim to:

- increase the number and quality of early-stage companies in Helsinki.
- create 100 new and innovative companies per year
- create an active business incubator network that enables cooperation & complementary services between campuses

Image: Keksi Agency / Helsinki Partners


Helsinki has one of the highest university concentrations in Europe
1. University of Helsinki
32 000 students 7 000 person-years
Center campus
17 720 students
12 000 staff
Meilahti
3 000 students
1 350 staff
+ HUS
Kumpula
5 000 students
1 200 staff
Viikki
6 000 students
1 500 staff
Academic Medical Center
2. Aalto University
Otaniemi
11 300 students
1 500 staff
3. Metropolia
16 600 students
1 000 person-years
Arabia
1 800 students
Myllypuro
6 000 students
4. Haaga-Helia
10 000 students 600 person-years
Pasila
8 000 students
Haaga
Malmi
5. Laurea
Leppävaara, Otaniemi, Tikkurila
7 700
students
500
6. Arcada
Arabia
2 700
170
7. Uniarts
Töölö, Sörnäinen, Vallila
2 000
450
8. Hanken
Töölö
2 500
230
9. Diak
Arabia
1700
200
10. National Defence Uni
Santahamina
900
11. Humak
Haaga, Kauniainen
800

FAIR

Finnish AI Region | EDIH

Helsinki

Kalle Toivonen, Senior Advisor, Business Helsinki

FAIR EDIH

- Provides *free* or *subventioned* services to SME´s to adopt AI, forming an ecosystem of AI-applying companies
- Serves whole Finland with emphasis on the capital region (Helsinki, Espoo, Vantaa)
- Finnish Center for Artificial Intelligence (FCAI) brings the latest AI research results to FAIR
- Multiplies and diffuses the use of the digital capacities built up in EU´s research programs

Partners

- City of Helsinki (coordinator)
- University of Helsinki
- Aalto University
- Metropolia University of Applied Sciences
- Haaga-Helia University of Applied Sciences
- CSC - IT Center for Science
- City of Espoo
- City of Vantaa
- KIRA-InnoHub ry (KIRAHub)
- EIT Digital

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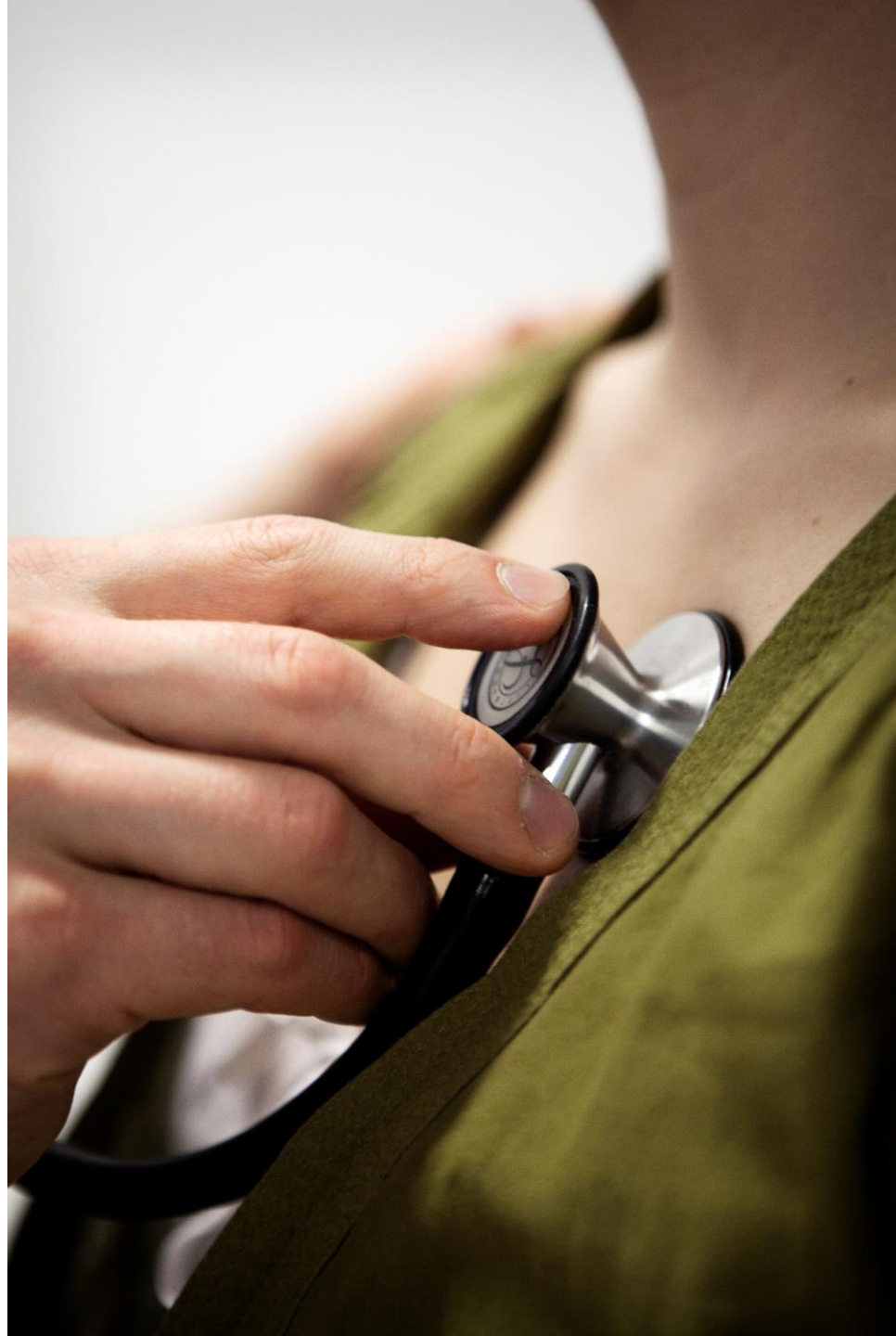
Technologies

- Artificial Intelligence (main)
- Other
  - Cyber-security
  - Extended Reality

Customer sectors

- Digital service industry (main)
  - Serves multiple verticals
- Smart Cities
- Health



Why FAIR?

- Competence in using new technologies is one of the most important drivers for economic growth
- In Finland, use of AI (and supporting tech) in the companies is still very narrow and limited.
- On a national level, **12 %** of Finnish companies with **10** employees or more used some AI enabled solution.
- Furthermore, only around **5 %** of Finnish companies employing more than three persons used AI in their daily operations during 2020
- Meanwhile, only **39%** of the companies with personnel > 100 use AI

Target customers

- Main customers are SMEs operating in the areas of **digital services, smart cities** and **health**
  - Software companies as well as construction and real estate companies are leading sectors in Finland applying AI.
  - Service companies are especially important in the capital region.
  - Digital health and AI are strongholds in Finland and especially in the capital region

- Our customer typically represents a company that has already embarked on the journey of utilizing AI and has grown some competence of their own.

- Motivation to select customers with existing AI competence is based on ROI analysis and **aspiration to deliver impact**. This choice is supported by the nature of our target sectors.

Photo: N2 albiino

Service portfolio planning

- The FAIR consortium undertook a study on the support needs of AI utilization within the service sector SMEs in spring/summer 2021 to find out how to advance the use of AI in target companies

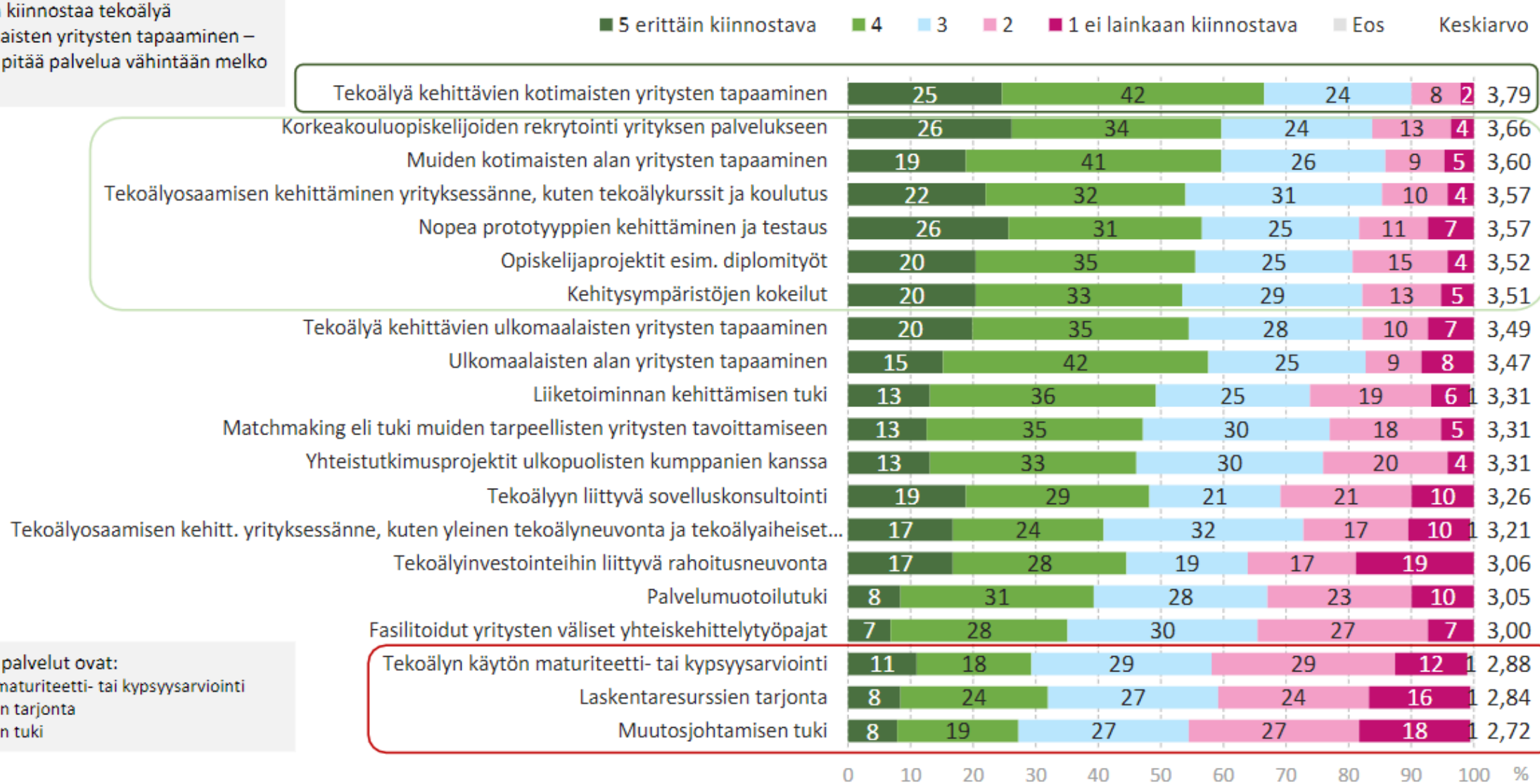
- The target group of the study was service sector SMEs, both KIBS (knowledge intensive business services, such as law firms, consulting, etc.) and B2C companies (such as retail, hospitality, etc.), employing 5-250 persons.

- The results of the study with 191 interviews have been used in tailoring the service offering of FAIR consortium to fit closely to the verified needs of the service sector SMEs.

- The portfolio was then tailored to **highlight the existing strengths of each partner and to bring the competences together**.

Tekoälyn käytön edistämiseen liittyvien palveluiden kiinnostavuus

- Palveluista eniten kiinnostaa tekoälyä kehittävien kotimaisten yritysten tapaaminen – kaksi kolmasosaa pitää palvelua vähintään melko kiinnostavana.



- Vähiten kiinnostavat palvelut ovat:
  - Tekoälyn käytön maturiteetti- tai kypsyysarviointi
  - Laskentaresurssien tarjonta
  - Muutosjohtamisen tuki

Services

- Services are divided under four categories and generalized in the price list
- Services are meant to be offered free of charge in the beginning, given that the customer represents our target group
- Service journey thinking is integrated in the delivery: 1) Starting from the needs analysis that is supported with maturity assesment (with potential ethical evaluation), moving on to 2) tailored service portfolio planning, 3) implementation and finally 4) impact evaluation
- First come, first served basis. If maximum units are met, new pricing schemes must be considered

Service	# of units	Unit
Needs analysis and test before invest		
AI Maturity assessment	100	customer
Roadmapping and cybersecurity solutions	24	day
Co-creation workshops and hackathons	48	event
Student thesis project	12	six person months
Fast prototyping	100	prototype
AI Accelerator	24	program
Testbeds and experiments	220	day
Skills and Training		
AI training events	26	event
Tailored XR training and experiments	20	experiment
HPC computing environment training	18	per training
Fostering business through AI: short course	14	0.5 day
Support to find investments		
Advice to SMEs, business development	40	person month
Investor events and matchmaking with investors for SMEs	40	event
Access to Finance -service	3	case
Innovation ecosystem and networking		
Networking events	35	event
Matchmaking support to find solutions and partners	40	person month

"Test before invest" covers a wide range of services from lab scale to piloting in an actual operational environment

EXAMPLE OF SPECIFIED SERVICE OFFERING

- **Validation** of new AI products and services during research phases
  - paying attention to practical challenges such as objective assessment, bias handling, explainability, adherence to regulatory processes
- **Prototype (development and) testing** in lab environments
  - e.g. security testing, Megasense test bed, 5G research infra, XR showroom, artificial IoT Lab, preclinical testing (preclinical testing, piloting, validation and verification of health-related AI solutions), HUS testbed / HUS Health village (via networks)
- **Living labs and piloting** in operational environments
  - next generation UI's in XR environment
  - labs for studying emotional response & interaction in face-to-face, virtual, and digital encounters
  - cities' testbeds for piloting in operational environment
- **Data repositories** of partners & pointing of data repositories operated by EU and other bodies

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Ecosystem development

- FAIR relies heavily in its functioning ecosystem
- Strategic partnerships have been agreed with EDIHs from Estonia (AI & Robotics, AIRE), Sweden (AI Sweden) and Norway (Nemonoor)
- FAIR has strong associated partners: ABB, Varian (Siemens Healthineers), Microsoft, Silo.AI, HUS, Arcada and Uudenmaanliitto
- Furthermore there is an EU-wide partnership within Digital Construction focused EDIHs that aims to create joint products for the customers.
- More partnerships are formed once the selection results are public

Photo: Keksi Agency

FAIR has started operating 1/10/2022

Please be in touch and lets discuss about collaboration

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