Aalto-yliopisto
Aalto-universitetet
Aalto University

Accessible expertise in artificial intelligence

FAIR Finnish AI Region and House of AI Aalto University

Sami Heinäsmäki and Hannele Mennala

The Digital Security fair

16.04.2026 Jyväskylä

Session overview

- Aalto University
- FAIR Finnish AI Region
- House of AI

✓ Support to your AI journey
✓ Learnings
✓ Co-operation possibilities

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Speakers from Aalto University

Sami Heinäsmäki, PhD

- Background in physics
- Experience in building and operating collaborative projects and infrastructures in AI:
  - Finnish Center of Artificial Intelligence,
  - ELLIS Institute Finland,
  - Aalto House of AI

Hannele Mennala,
Master of Science (Econ.) Certified Business Coach,

- 25+ years experience in business, entrepreneurship, higher education and tech
- Growth with marketing, sales, leadership, innovation & tech
- FAIR management board

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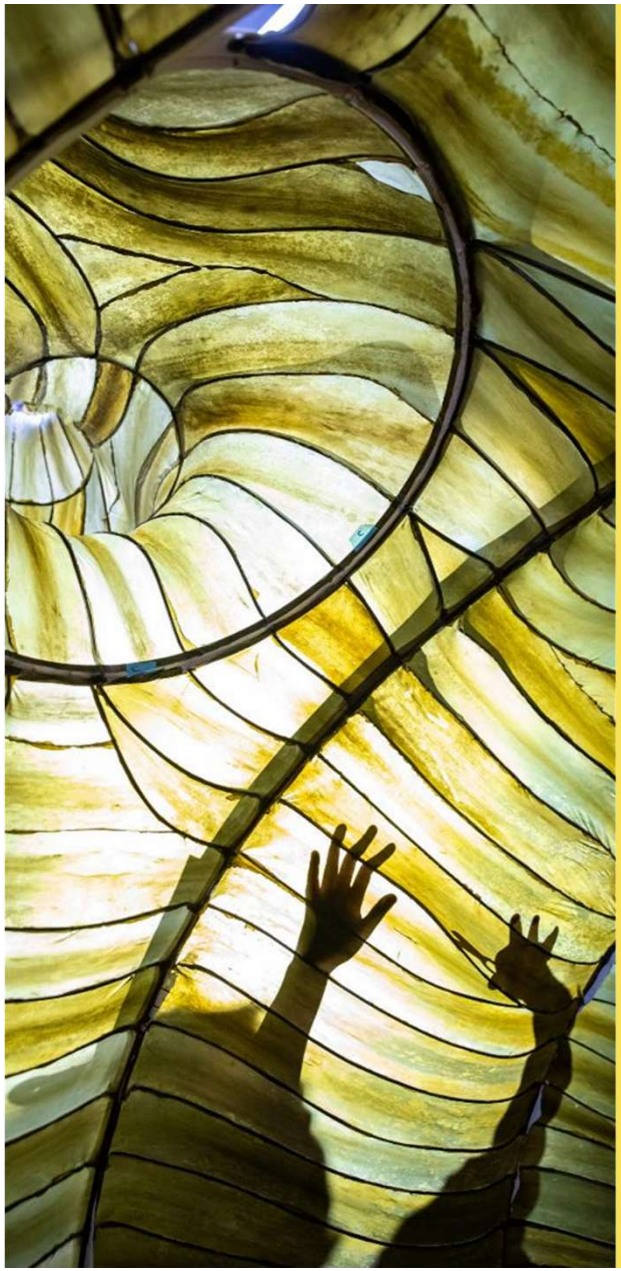
Aalto University in a nutshell

Six dynamic schools

School of Arts, Design and Architecture architecture, art and media, design, film

School of Business accounting and business law, economics, finance, information and service management, management studies, marketing

School of Chemical Engineering bioproducts and biosystems, chemical and metallurgical engineering, chemistry and materials science



School of Electrical Engineering electrical engineering and automation, electronics and nanoengineering, information and communications engineering

School of Engineering built environment, civil engineering, energy and mechanical engineering

School of Science applied physics, computer science, industrial engineering and management, mathematics and systems analysis, neuroscience and biomedical engineering

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Our community in numbers

14 500 degree students
(full-time equivalent)

Over **100 000** alumni

A staff of over
5 200 of which
437 are professors.

Annually, our students complete approximately

250 doctoral degrees,

2 100 master's degrees,

1 600 bachelor's degrees and

300 MBA and Executive MBA certificates

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Finnish AI Region | EDIH
Co-funded by
the European Union

Aalto University · Tampere University · Helsingin yliopisto Helsingfors universitet University of Helsinki · Haaga-Helia · Metropolia University of Applied Sciences · eit Digital · KIRAHub · Espoo Esbo · Enter Espoo · Helsinki Helsingfors · Vantaa · CSC · ARCADA · HXRC Helsinki XR Center · HUS Helsinki University Hospital · Microsoft · Helsinki-Uusimaa Regional Council · Google · DNA · ABB · varian A Siemens Healthineers Company · FCAI Finnish Center for Artificial Intelligence · Technology Industries of Finland

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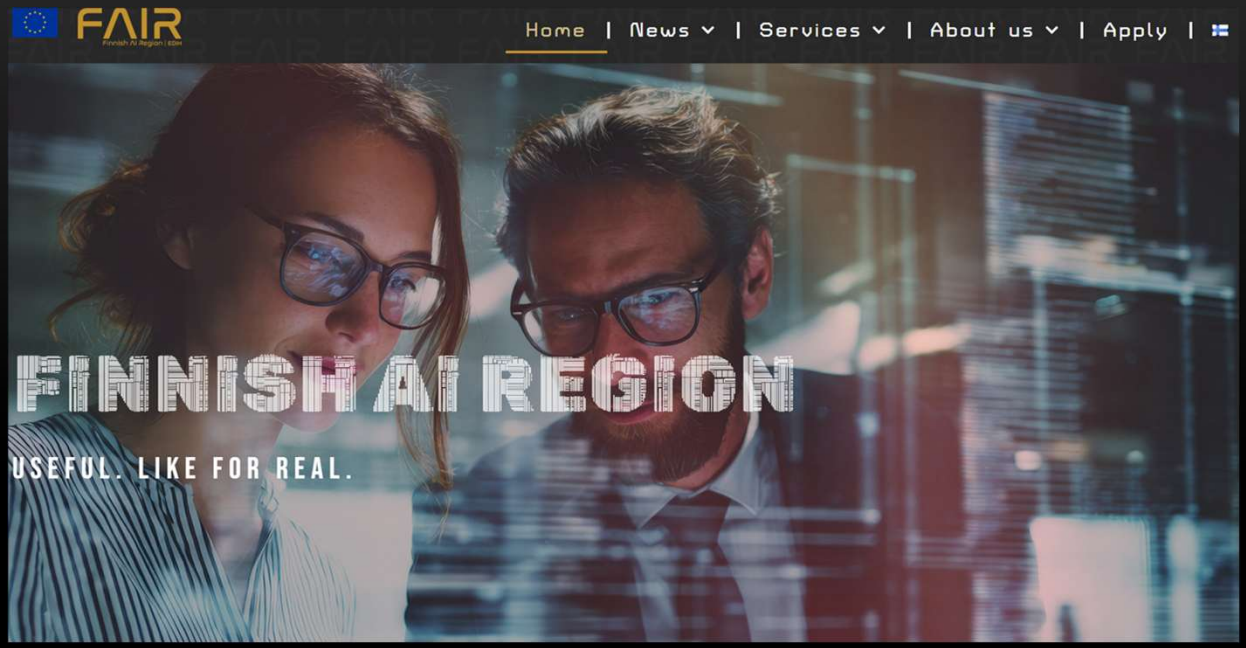
Finnish AI Region | EDIH

Skills & training

Research, development & experimentation

Support in securing funding

Ecosystem and networking



Finnish AI Region – FAIR

FAIR - Finnish AI Region EDIH
2022 - 2025

555
Services delivered

331
Companies served with organization specific services

70
Events organised

14,686
Event attendees

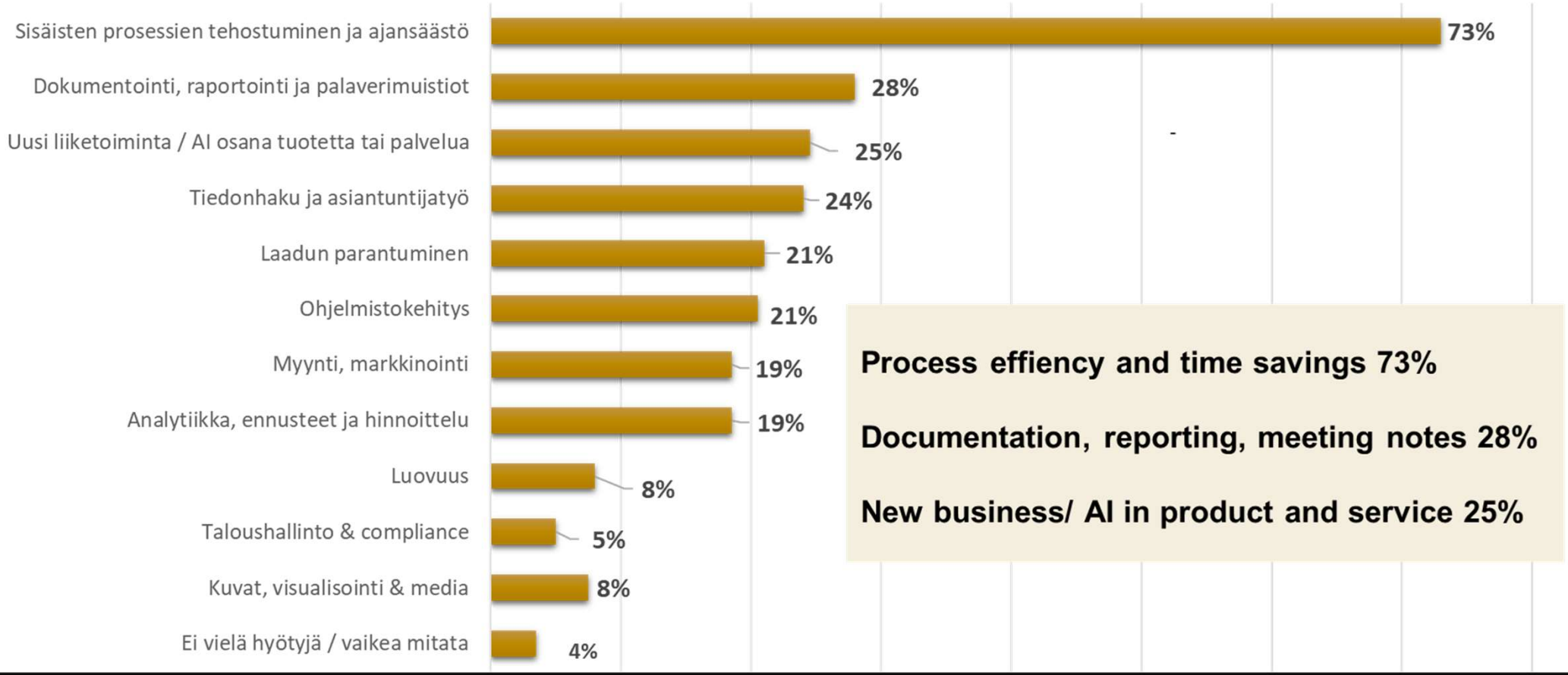
Utilizing artificial intelligence in Finnish companies

Research insight

Taloustutkimus 2026

What business benefits has your company gained from utilizing artificial intelligence?

(percentage of respondents, N=200)



Process effiency and time savings 73%

Documentation, reporting, meeting notes 28%

New business/ AI in product and service 25%

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Euroopan unionin osarahoittama

Barriers in using AI in companies

**Cybersecurity,
data protection, confidentiality,
data residency 29%**

Skills gap, cybersecurity and regulation are among the biggest barriers

- Skills gap **33%**, cybersecurity & data **29%,** regulation **28%**
- Resource and cost challenges significant **26–24%**
- Culture and resistance to change slow progress **21%**
- Technical reliability and tool selection smaller barriers **~10%**
- Customers and integration challenges less significant **<10%**
- IPR and ethical issues least emphasized **4%**

Summary

- Value is not limited to individual use cases: **AI is a means to transform work, services, and business models**
- Adoption is slowed by s**kill gaps, costs, reliability, data issues, and regulation**
- Companies need more than technology: **practical support such as identifying use cases, running experiments, and developing skills**
- **Regulation has become a key challenge** – with significant variation in skills and resources

-> FAIR EDIH can support SMEs 2026-2028

How to get started

Top 5 strategies for SME’s

1. Build a human firewall
2. Implement zero trust gradually
3. Leverage AI-powered Security Tools
4. Prioritize based on the risk
5. Strategic partnerships

Risk assessment -

consider the system's **criticality to core business,**
its r**equired autonomy and complexity**, and the **sensitivity of the data** it handles.

	Matala	Kohtalainen	Korkea	Erittäin korkea
Vaikutus ydinliiketoimintaan	Järjestelmä ei suorita ydinliiketoimintaan liittyviä tehtäviä.	Järjestelmä suorittaa helposti hallittavia ja rajoitettuja osia työnkuluista, jotka ovat osa ydinliiketoimintaa.	Järjestelmä suorittaa osia organisaation ydinliiketoiminnasta.	Järjestelmä suorittaa keskeisiä osia organisaation ydinliiketoiminnasta.
Autonomia ja monimutkaisuus	Järjestelmä ei ole integroitu muihin järjestelmiin tai toisiin agentteihin.	Järjestelmä on integroitu vähäiseen määrään ulkoisia järjestelmiä, jotka eivät ole ydinliiketoiminnan kannalta kriittisiä.	Järjestelmä on integroitu useisiin ulkoisiin työkaluihin ja/tai on moniagenttijärjestelmä. Osa integraatioista kohdistuu ydinliiketoiminnan kannalta kriittisiin järjestelmiin.	Järjestelmä on moniagenttijärjestelmä, jossa on useita rajapintoja ja integraatioita ydinliiketoiminnan kannalta kriittisiin järjestelmiin.
Datan arkaluontoisuus	Järjestelmä käsittelee vain julkista tietoa.	Järjestelmä käsittelee organisaation sisäistä tietoa.	Järjestelmä käsittelee luottamuksellista tietoa.	Järjestelmä käsittelee salaista ja arkaluontoista tietoa.

Source Traficom https://traficom.fi/fi/julkaisut/tekoalyagenttien-kyberturvallisuus

FAIR provides support for your cyber security journey

AI & Cyber advisory from FAIR

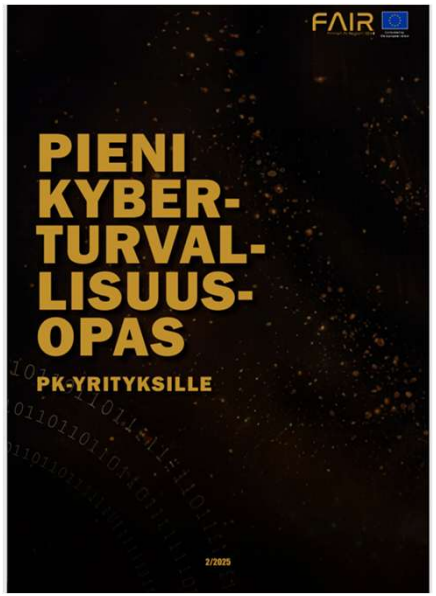
- AI technical,
- Data Stratgy,
- Cyber security advisory

-> Apply to FAIR
https://www.fairedih.fi/

Cyber security guide

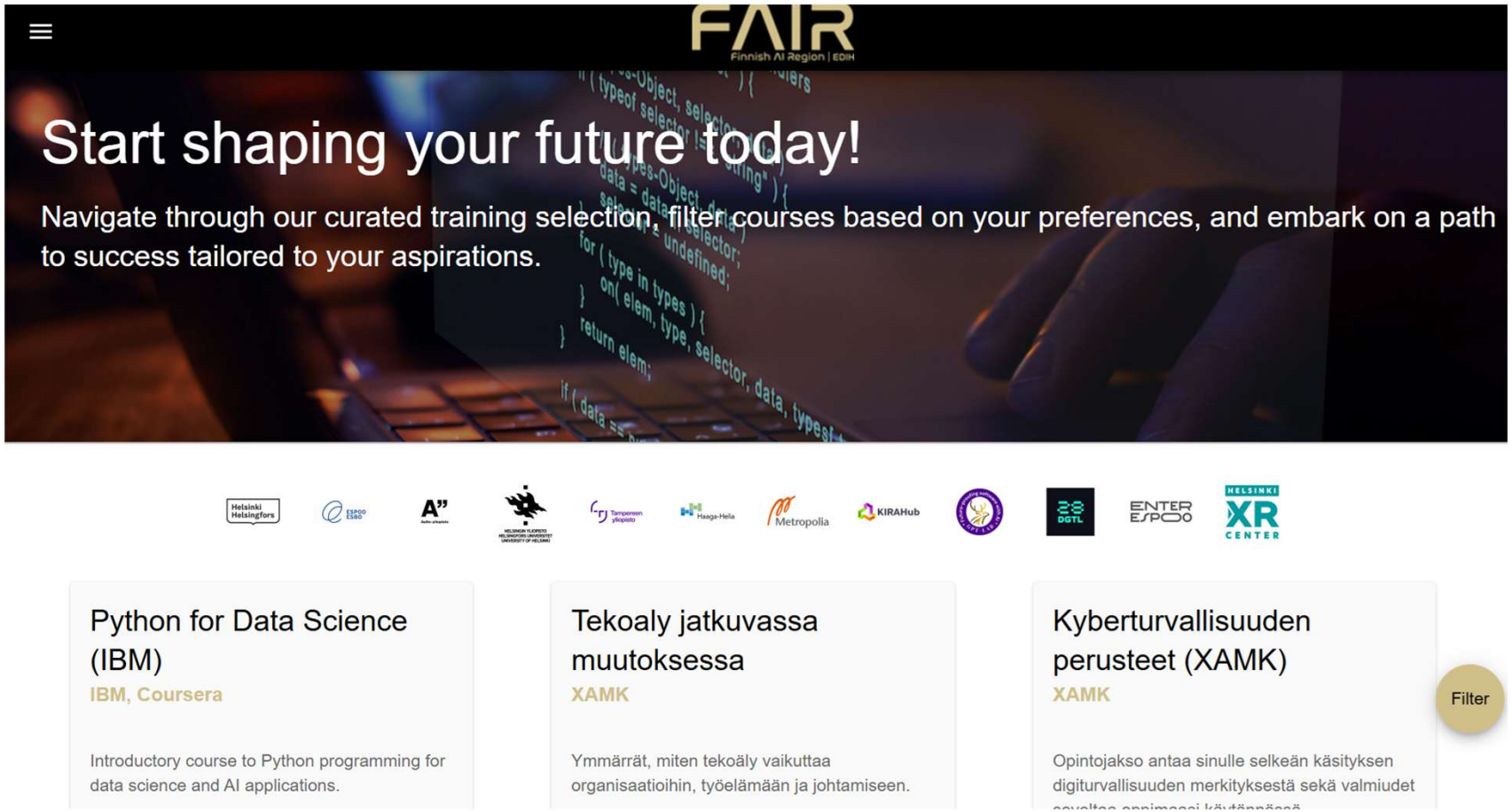
Find it from FAIR web site/ publications

- ENG
- FIN

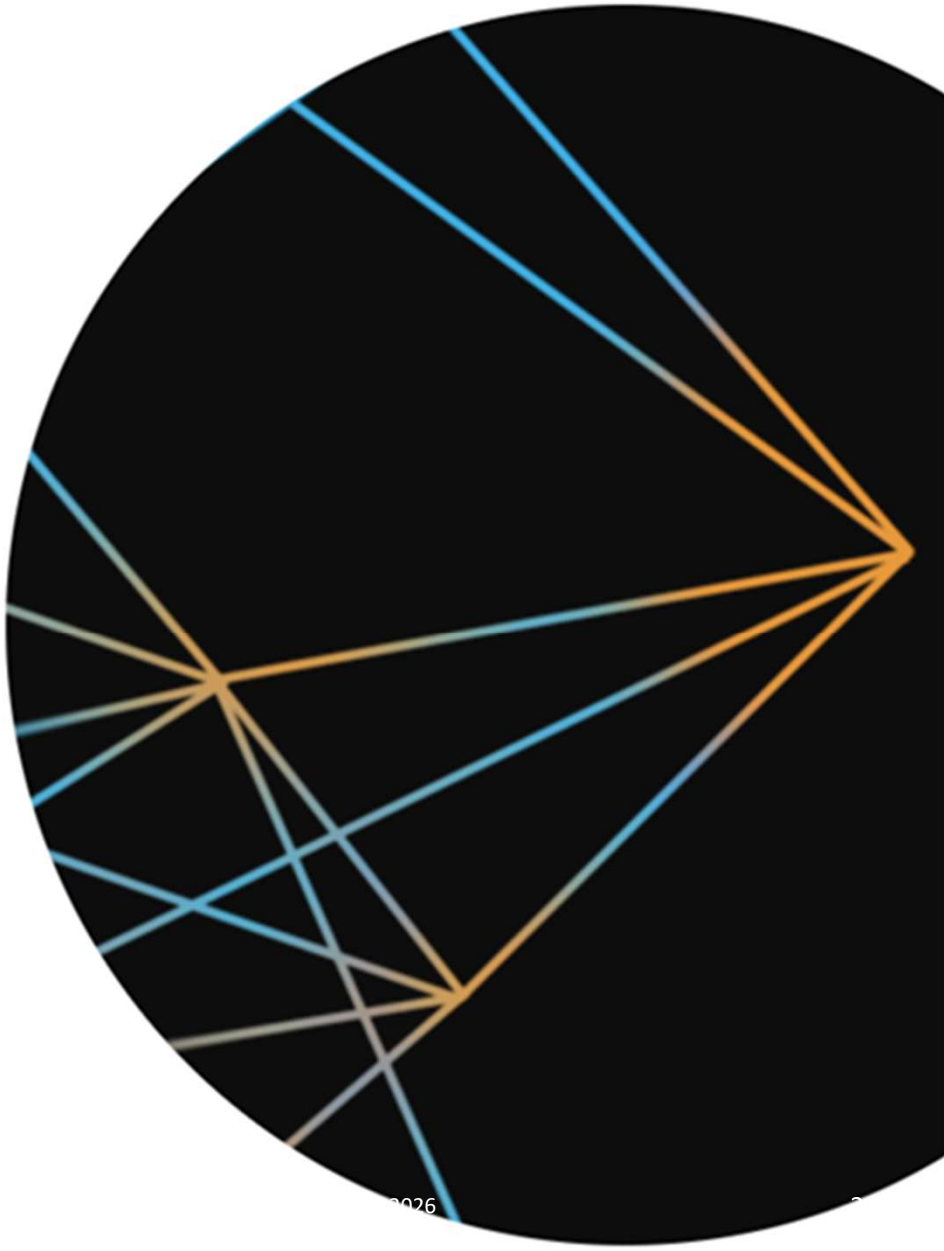


FAIR training selection

Trainings availabe
[FAIR - Skills and training]



House of AI

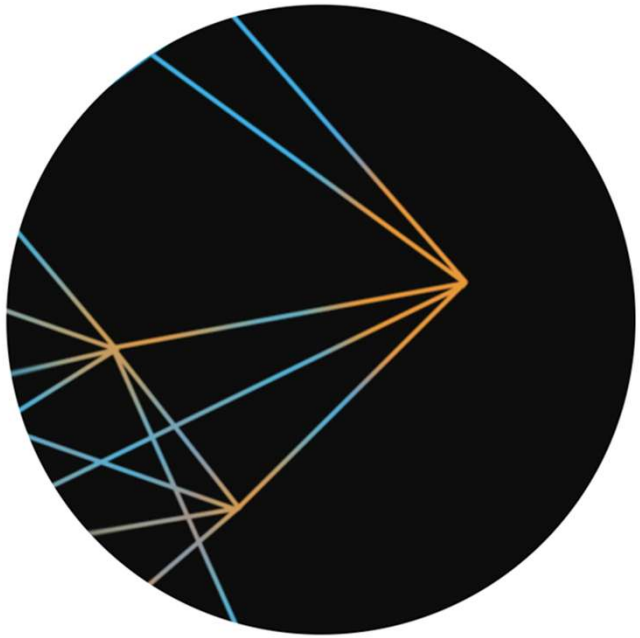


House of AI in Aalto University

Multidisciplinary research for applying and developing AI

House of AI was founded in 2024 with the goal to create collaborative projects with Aalto researchers and industry, where there is

- Strong potential for transformative AI
- Excellent research and societal and industrial impact
- Especially impact on sustainability
- Competitive advantage of Aalto



Not just AI, but AI with other areas of research!

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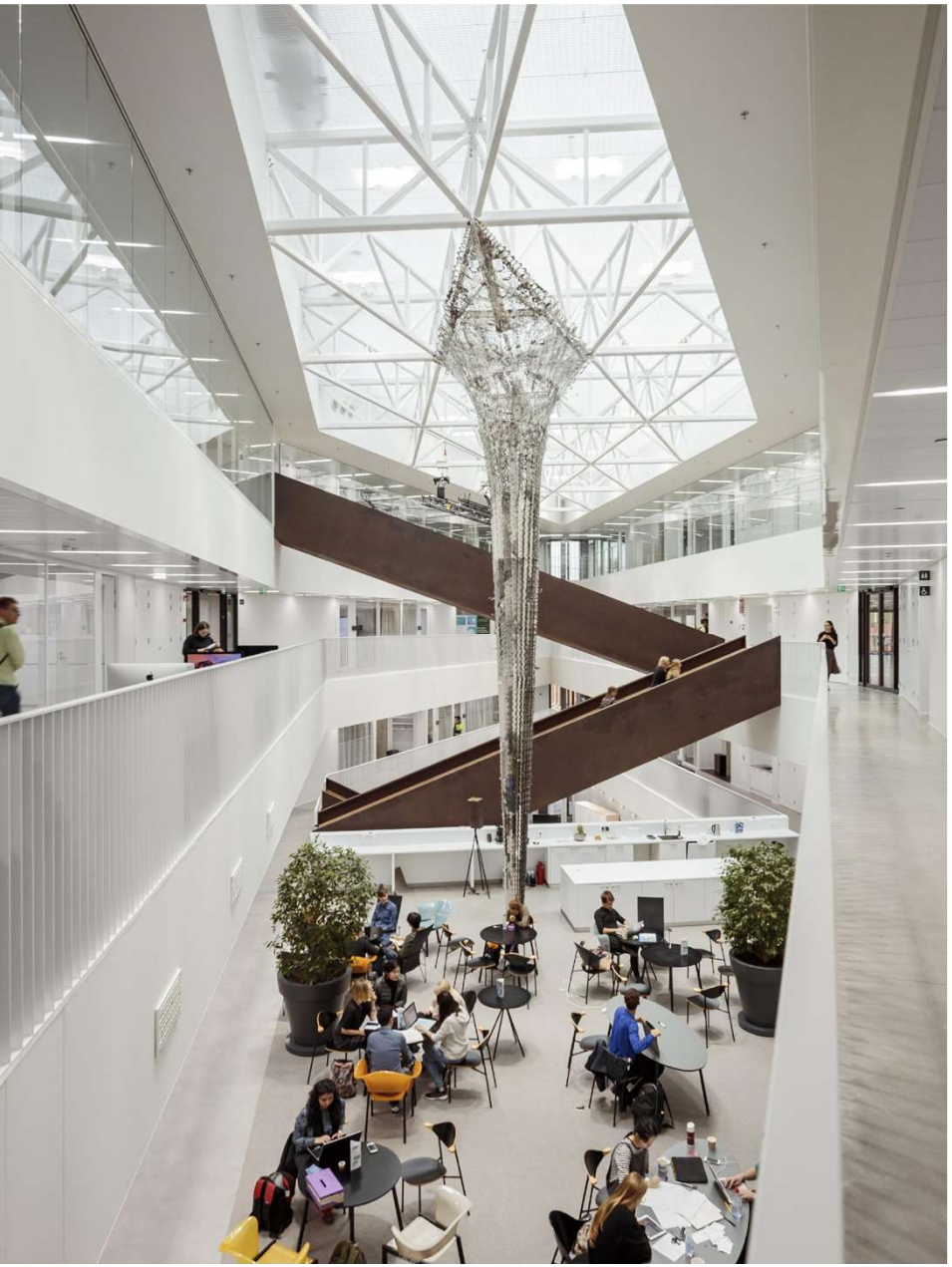

House of AI collaboration themes

Themes spanning over Aalto schools:

- **Energy systems** (AI – electrical engineering – economics)
- **Manufacturing industry**: condition monitoring & predictive maintenance (AI – mechanical engineering – electrical engineering)
- **Health and wellbeing** (starting)

- A Theme is built from sub-projects with different partners and own funding
- Each projects targets specific goals

House of AI has common activities across themes:

- Building new themes, rapid piloting
- Utilizing synergy between the themes
- Multidisciplinary community for PhD students
- Groups of small and medium-sized companies (starting)

House of AI is organizationally a lightweight center (there is no house!)

- Funding comes mainly from foundations, and industry (external funding currently > 5M€)
- Common activities funded by the Technology Industries Finland Centennial Foundation

Companies and Aalto House of AI

MAPPING – PILOTING – RESEARCH COLLABORATION

- Companies whose R&D can benefit from AI
- Own motivation and willingness to collaborate
- Shareable data for joint use
- Preferably a group of companies with similar development needs

- Focus on a (small) sub-problem using one or a few methods
- Collaboration based on a data usage agreement
- Team: university postdoc/Research Software Engineer + 1–2 company experts
- Continue based on experiment results

- Collaborative project agreement; scope defined case by case
- Team: postdocs and research software engineers supervised by professors
- Goal: significant improvement in product development and/or business

Learn more about House of AI - *let's collaborate!*

- **Roundtable 11.06.2026 Aalto university** for representatives of manufacturing industry companies whose business involves autonomous machines and robotics.
- House of AI web site
- Follow us Linkedin

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Kiitos
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