

Universitetssamarbete med näringslivet: Case Aalto-universitetet

University-Corporate Collaboration: Case Aalto University

Merger of three leading Finnish universities

1849

Helsinki University of Technology

1871

University of Art & Design Helsinki

1911

Helsinki School of Economics

A''

Aalto University

2010

A?

Aalto University

Aalto University Schools

School of Arts, Design and Architecture

architecture; art; design; media; film, television and scenography

School of Business

accounting; economics; finance; management studies; marketing; information and service management

School of Chemical Engineering

bio products and bio systems; chemistry and materials science; chemical and metallurgical engineering

School of Electrical Engineering

communications and networking; electronics and nanoengineering; electrical engineering and automation; signal processing and acoustics

School of Engineering

built environment; civil engineering; mechanical engineering

School of Science

applied physics; computer science; industrial engineering and management; mathematics and systems analysis; neuroscience and biomedical engineering

Mission and Vision

MISSION

**Shaping the future:
science and art together with
technology and business**

VISION

An innovative society

Breakthrough discoveries deeply integrated with design and business thinking enable systemic solutions and accelerate innovation.



Aalto University

Activities & Resources: Key points

Activities & Outcomes:

Teaching/learning: Strengthened focus on real-life cases (experiential learning) & multidisciplinary teaching/learning

Startups: Development of entrepreneurial eco-system around Aalto U

Research: From largely applied work to much more internationally cutting-edge & ground-breaking + striving to increase multi-disciplinary research

Key Resources used to support industry collaboration:

- **Faculty:** Radical change towards talent portfolio inspired by US role models
- **Students:** Supporting our students to do great things
- **Campus:** Creation of "real" multi-disciplinary campus, with university activities at the center with collaborative spaces, facilities for start-ups, etc.
- **Partnerships & Alumni** engagement
- **Multidisciplinary Research Platforms**

Student Learning through Real-World Challenges

Focus on experiential learning, analyzing and solving real-world corporate and societal challenge (with sponsors from industry, public sector, NGOs):

- Real live cases
- Hackathons
- Business projects
- Internships
- Theses



>100 real live cases, hackathons & business projects/year
(many multi-disciplinary) in the **School of Business**

➔ Students Learning + Real-World Impact!

Multi/interdisciplinary Studies

Reform of the BSc and MSc Studies

- University-wide studies: Art, Business, Technology – some for "others", some for all
- Multidisciplinary minors
- Next step: Mandatory Art & Tech studies for all business students(?)

Co-location of BSc studies partly in the same building

Real live cases with industry/public/NGO partners in multi-disciplinary teams

Entrepreneurship program for students across disciplines

Interdisciplinary MSc programs

- *International Design Business Management, Creative Sustainability*
- Students and faculty members from different schools doing them together

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- Understanding across disciplines → Innovative analyses & solutions
- Ability to work in multi-disciplinary teams
- Social capital building among students across disciplines → Startups, Careers

Promoting entrepreneurship

The background image shows a modern interior space with large windows and blue armchairs. Two women are sitting in the armchairs, one using a laptop and the other reading a book. The space is bright and airy, with a wooden floor and a white wall.

70 to 100

companies
are founded every year
in our ecosystem

50%

of Finnish start-ups
that originate from
universities come from
the Aalto community

Success in global research rankings

43th

Computer science
(US News)

9th

Art & design
(QS Ranking)

28th

Telecommunications
engineering (ARWU)

34th

Business administration
(ARWU)

93rd

Chemical
engineering (NTU)

39th

Marine & ocean engineering
(ARWU)



Success cases in research-based innovation

Jenni Haukio, with President Sauli Niinistö, in the evening gown made of 100% birch-based loncell fabric on the Finnish Independence Day.

A multidisciplinary team at Aalto University designed and produced the gown, using a sustainable technology called loncell that won the H&M Global Change Award in 2015.

loncell creates quality textile fibres from a range of raw materials, including wood, recycled newspaper or cardboard, and old cotton textiles.



Aalto U 2013-17

729 invention disclosures, 333 patents, 157 tech transfers,
and 1,041 commissioned projects with corporations

Key Resources

Suitable Academic Faculty Portfolio: School of Business*

84 Professorships (tenure track):
assistant, associate, full professors

20 lecturer
positions

Fixed-term, usually part-time

18 professors
of practice

6 executives
in residence



Myrto Chliova
*Assistant
Professor in
Entrepreneurship
PhD, ESADE
Business School*



Nina Granqvist
*Associate
Professor in
Management
PhD, Helsinki
School of
Economics*



**Marko
Terviö**
*Professor of
Economics
PhD, MIT*



Johanna Bragge
*Senior University
Lecturer,
Information System
Science
DSc (Econ.),
Helsinki School of
Economics*



Lasse Mitronen
*Professor of
Practice,
Marketing,
former VP,
Development at
Kesko
(major retailer)*



Bruce Oreck
*Executive in
Residence,
former US
Ambassador
to Finland*

+ 1 Adjunct & 15 Visiting Professors

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Practice,
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+ 1 Adjunct & 15 Visiting Professors

Aalto U: 175 Adjunct Professors / Professors of Practice / Executives/Artists in Residence

* Number of faculty positions in May 2018

Entrepreneurship *as cross-cutting theme*

Entrepreneurship
research

Entrepreneurship
education

Entrepreneurship
programs

Student-led **entrepreneurship**
activities

External stakeholders facilitating
entrepreneurship

University campus built to support **entrepreneurship** *activities*

Students as **co-creators** and leaders

Startup event SLUSH became world-renowned in the hands of Aalto students, attracting over 20 000 global participants annually.

Now also in Shanghai, Singapore and Tokyo



The Aalto entrepreneurial ecosystem

Students as co-creators & leaders (supported by Aalto U)

**AALTO
VENTURES
PROGRAM**

MSc Program in
Entrepreneurship
& Innovation

Aaltoes

KIUIAS



 **Startup Sauna**

startuplifers

SLUSH

JUNCTION

Otaniemi Campus as an Innovation Hub

An aerial architectural rendering of the Otaniemi campus. The image shows a dense cluster of modern, multi-story buildings with various rooflines and colors (bricks, greys, browns). The campus is interspersed with green spaces, trees, and walking paths. A large body of water is visible on the right side, with a marina area featuring several boats. The overall scene is bright and clear, suggesting a sunny day.

**Relocation of Schools of ARTS & BUSINESS to the main Aalto campus
... comprising Aalto researchers, staff, students, other research institutions,
corporate partners, as well as private, public and third sector actors
... now reached from downtown by the new metro line to the Aalto U station**

The Aalto Design Factory



Physical environment for multidisciplinary teaching & learning, research and co-creation between students, researchers, companies, and society.

Today the inspiration of a growing global network of 19 design factories world-wide

A Grid

A 25,000 m2 creative community for 120 startups and partners (ESA lab, UNTIL...) on the Aalto campus

Multi-party collaboration (not full list)

National
Research
Collaborations

Aalto multidisciplinary
Research Platforms

International
University
Networks

International
Innovation
Networks

- EIT Digital
- EIT InnoEnergy
- EIT Climate KIC
- EIT Raw Materials
- EIT Urban Mobility
- EIT Manufacturing

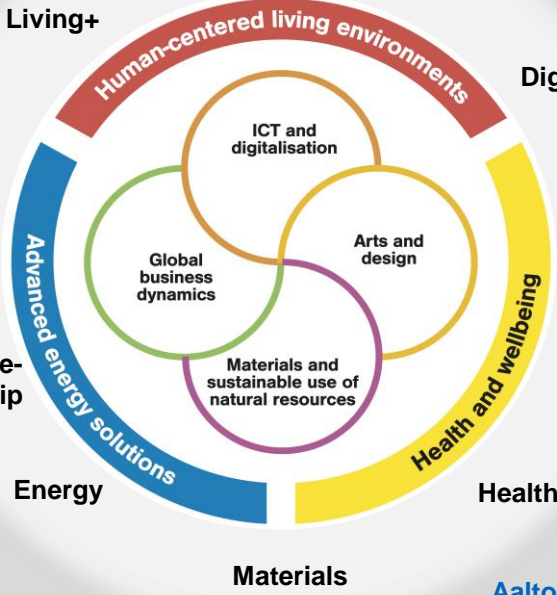
- Urban academy (UH, Helsinki)
- Helsinki Graduate School on Economics (HelsinkiGSE; UH, Hanken)

VTT Centre for Nuclear Energy

- Sustainability Hub
- Entrepreneurship

Bioeconomy Infrastructure (VTT)

Helsinki Institute of Physics (UH, TUT, LUT, JYU, STUK)



Aalto Industrial Internet Campus

Helsinki Institute of Information Technology (HIIT; UH)

Helsinki Center for Artificial Intelligence (FCAI; UH)

AaltoStudios (UniArts)

Health Capital Helsinki (HCH; UH, Helsinki, HUS)

Aalto Center for Quantum Engineering

Nordic Five Tech

Cluster

CEMS

Cumulus

DFGN

Corporate
Partnerships

Alumni Networks

Key elements of the Aalto U case

Suitable **faculty** composition with appropriate roles: Research / Learning / Outreach

Supporting and letting our **students** do great things

Creation of "real" multi-disciplinary **campus**, with university activities at the center with collaborative spaces, facilities for start-ups, etc.

Partnerships and strong **alumni** relationships

Multidisciplinary research platforms

But it is still early days and we have a long way to go!

The logo consists of a large, stylized white letter 'A' followed by a double quote symbol, set against a dark background.

A"

Aalto University

The background image shows a group of four students walking through a modern glass door. A young man in a purple shirt is in the foreground, looking out. Behind him, a young woman in a striped shirt is also looking out. To the right, another young woman in a striped shirt and a red jacket is walking away. The scene is brightly lit, suggesting an indoor-to-outdoor transition.

Towards a better world.



aalto.fi