

Aalto-yliopisto, Solutions for Sustainability ja ilmastonmuutos

Uusimaa MYR 16.2.2024, Pasila



Aalto-yliopisto
Aalto-universitetet
Aalto University

Meri Löyttyniemi

Erityisasiantuntija, kestävä kehitys

Väitöskirjatutkija / JSBE CEM

Uudenmaan maakuntavaltuuston jäsen





6 schools

6 dynamic schools combining science and art with technology and business

approx.

100 startups

Every year up to 100 startups are born in Aalto's ecosystem



Faculty and staff

4K

Students

12K

#6

Art & design ranked 6th globally (QS 2022)

Professors tenure track recruitments since 2010

300

+100 nationalities

Among Europe's most international universities in with more than 100 nationalities



#24

Business administration ranked 24th globally (ShanghaiRankings 2022)



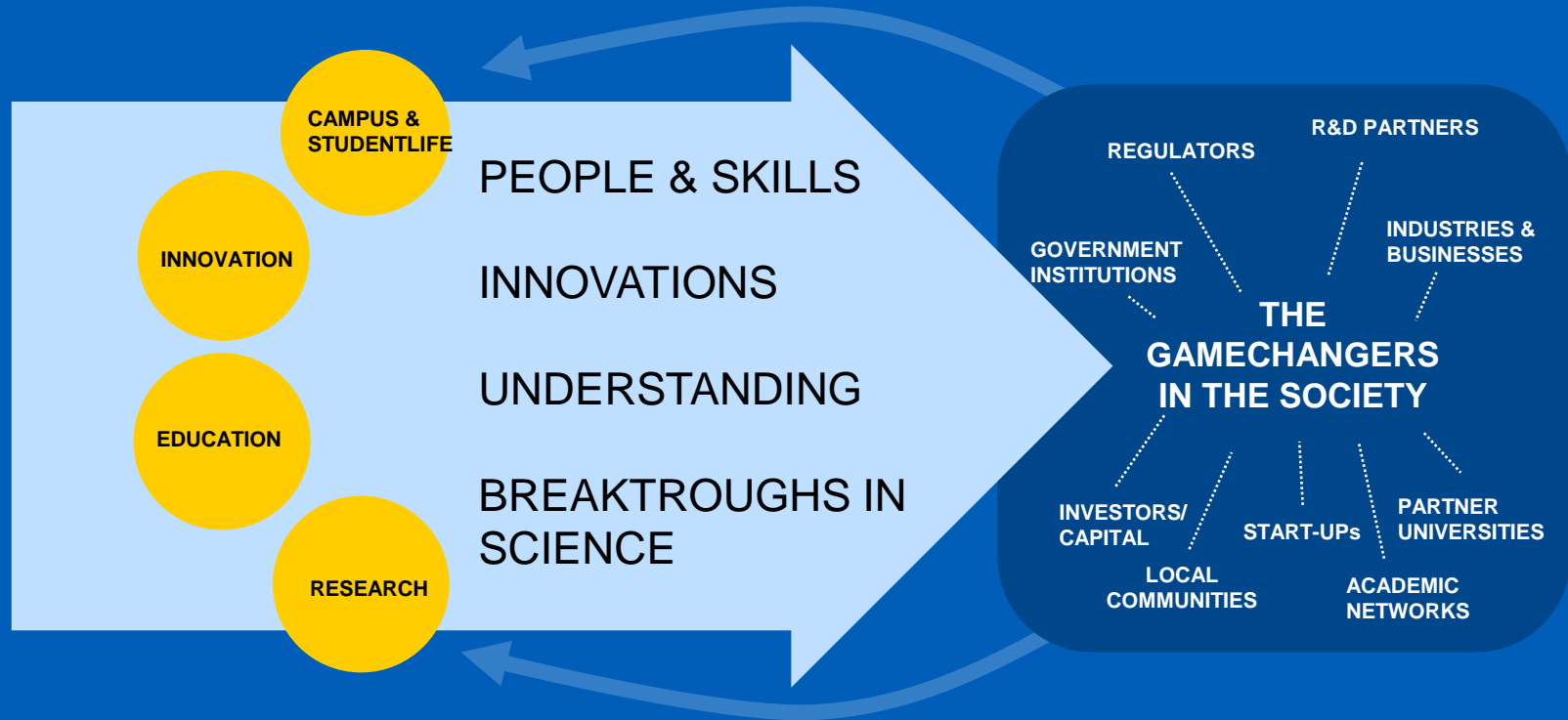
#9

Ranked 9th best young university globally (QS 2021)

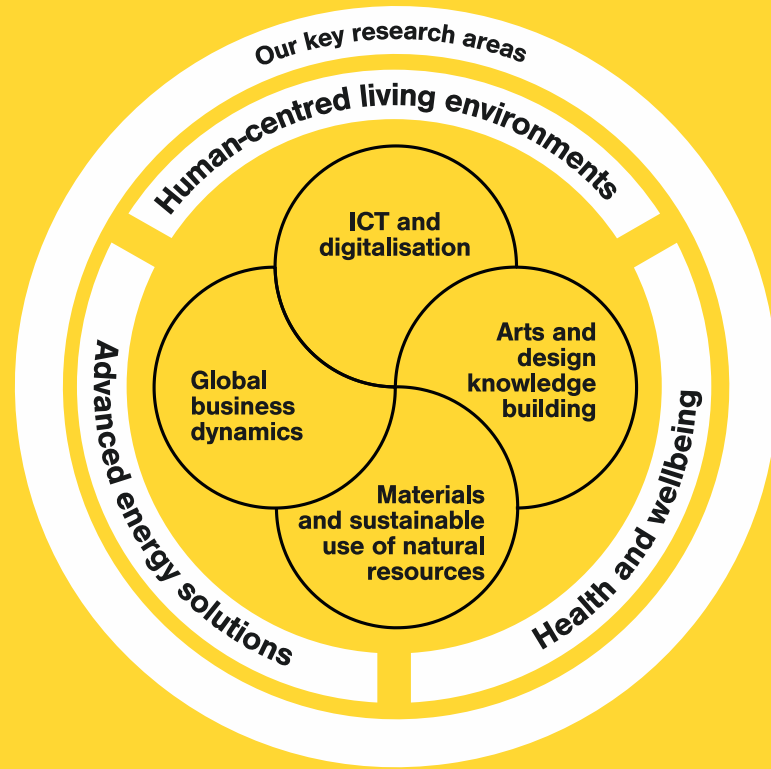


Shaping a sustainable future:

Innovation and Impact through Solutions for Sustainability



Research



We excel and make breakthroughs in and across science, art, technology and business

- 3,418 theses
- 3,073 peer-reviewed scientific publications
- 25,6 % of all publications SDG relevant*

COP28 in Dubai

Aalto at Finnish pavilion, Dec 2023

Aallon tutkijat ilmaisivat huolensa Dubain COP28- ilmastokokouksessa | Aalto- yliopisto

- Hydrogen revolution
- Global food systems
- Changing ice properties

Business Finland: Three things research has to solve before the hydrogen revolution is possible

Professori Mika Järvisen esitys COP28-ilmastokokouksen Suomi-paviljongissa. (Video englanniksi.)

→ [Katso esitys](#) □



Business Finland: Threats and opportunities for global food systems

Vilma Sandströmin ja Mika Jalavan esitys COP28-ilmastokokouksen Suomi-paviljongissa. (Video englanniksi.)

→ [Katso esitys](#) □

Business Finland: Sea ice properties are changing due to climate change. Why should we care?

Professori Jukka Tuhkurin esitys COP28-ilmastokokouksen Suomi-paviljongissa. (Video englanniksi.)

→ [Katso esitys](#) □



Some examples on the current development projects and their goals

Aalto Co-educators

- Graduates of Aalto University are capable of contributing with their field specific expertise to grasping and tackling complex multidisciplinary sustainability challenges
- Teacher training, sustainability modules, integrating sustainability into study tracks

Carbon Neutral Aalto, Aalto sustainable campus

- CNA: Roadmap and implementation, reducing Aalto's GHG footprint
- ACRE (Aalto Campus and Real Estate) responsible for sustainable campus

Sustainability Impact and education

- Aalto alumni companies
- Sustainability Action Booster: Unleashing student's enthusiasm
- AaltoEE and Climate University -courses

Events

- Sustainability Science Days -conference 10.-14.6.2024, Espoo & Helsinki
- Designs for a Cooler Planet –exhibition autumn 2024, Otaniemi

Education

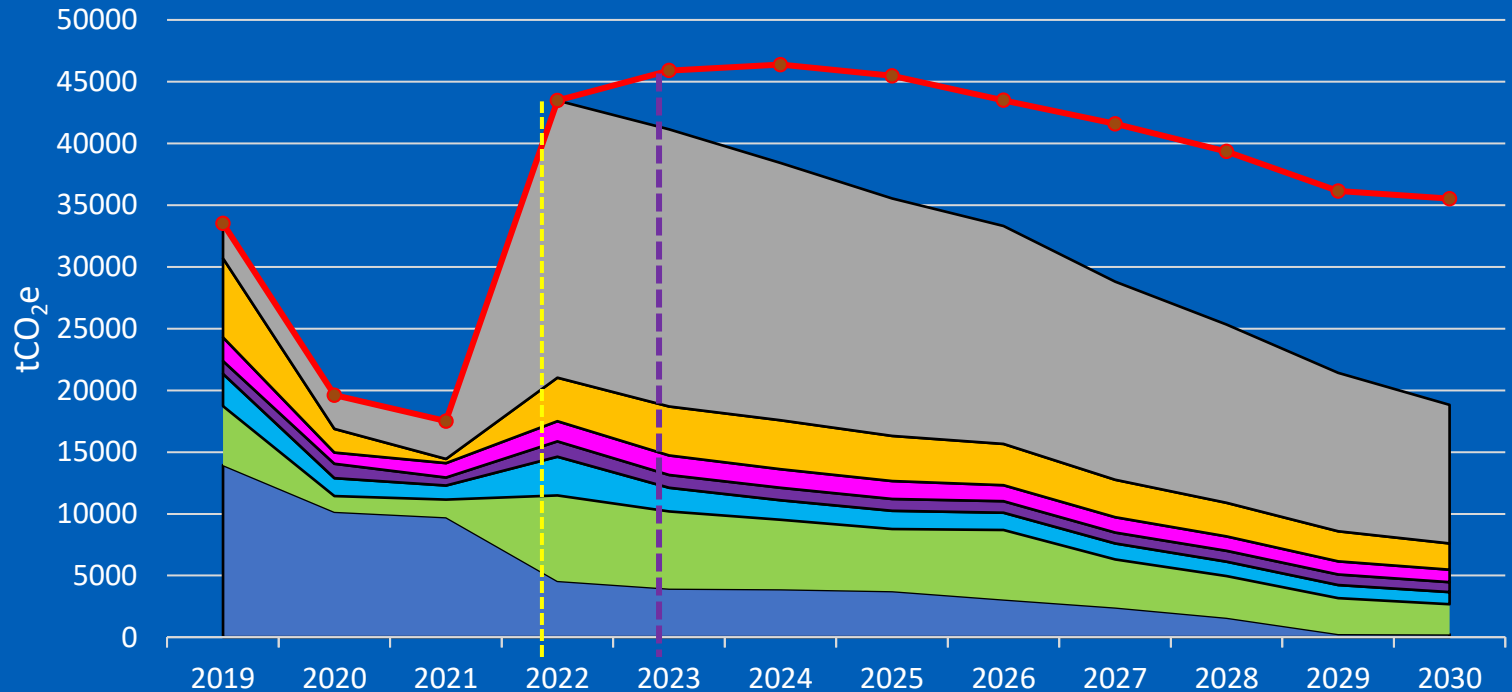


We spark the game changers of tomorrow

+2000 courses at Aalto are SDG relevant



Carbon reduction scenario 2019-2030



Aalto-yliopisto
Aalto-universitetet
Aalto University



Aalto alumni companies: versatile deep tech

KUVA SPACE

Global near real-time hyperspectral insights to effectively manage climate change impact and food security

Founded: 2016
Revenue: 1,2 M€
Funding: 16,6 M€



CANATU

Most advanced nanotubes from sustainable and futureproof carbon.

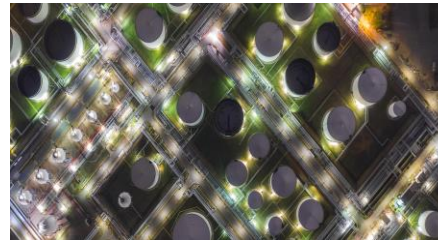
Founded: 2004
Revenue: 8,4 M€
Funding: 74 M€



Elmery

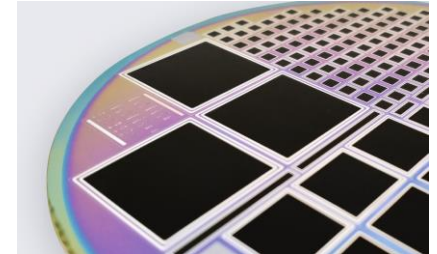
Improving the metal recovery and circulation in the refining process for economicality and sustainability

Founded: 2022
Revenue: 93 K€
Funding: 400 K€



Photodetector sensors catching every ray of light offer unlimited applications from safety to med tech and wearables.

Founded: 2017
Revenue: 315 K€
Funding: 6 M€



loncell disrupting the textile industry

110 million tonnes of textile fibres are produced each year globally. 99 % of the production is linear, which means materials are not recycled into new fibres.

loncell is turning used textiles, pulp or even old newspapers into new textile fibers sustainably and without harmful chemicals.

1915
appr. number
of citations

91
peer-reviewed
research articles

10
on-going +
finished PhD theses

15+
loncell®-made
demo products

140,000 € earmarked for granting student sustainability actions during 2023–2024

Sustainability Action Booster

Action ideas can include, but are not limited to:

- **Sustainability events**, including thematic weeks, festivals, awards, summits, hackathons, or parties
- **Collaborations** with other universities, schools, NGOs, or businesses
- **Projects, including** experiments, pilots, prototypes, or podcasts
- **Artistic interventions** like exhibitions, flash mobs, drama, or performances
- **Nudges** towards more sustainable behavioral patterns
- **Supportive community networks** to share ideas, learn, do, and be together



AaltoEE

ESG: vastuullisuusraportoinnilla läpinäkyvyyttä ja kilpailuetua

Chessa laadittava kotopäätös kestävistä ratkaisuista ja vastuullisista ajattelutavoista.

ESG: vastuullisuusraportoinnilla läpinäkyvyyttä ja kilpailuetua



Vastuullisuus ja liiketoiminta



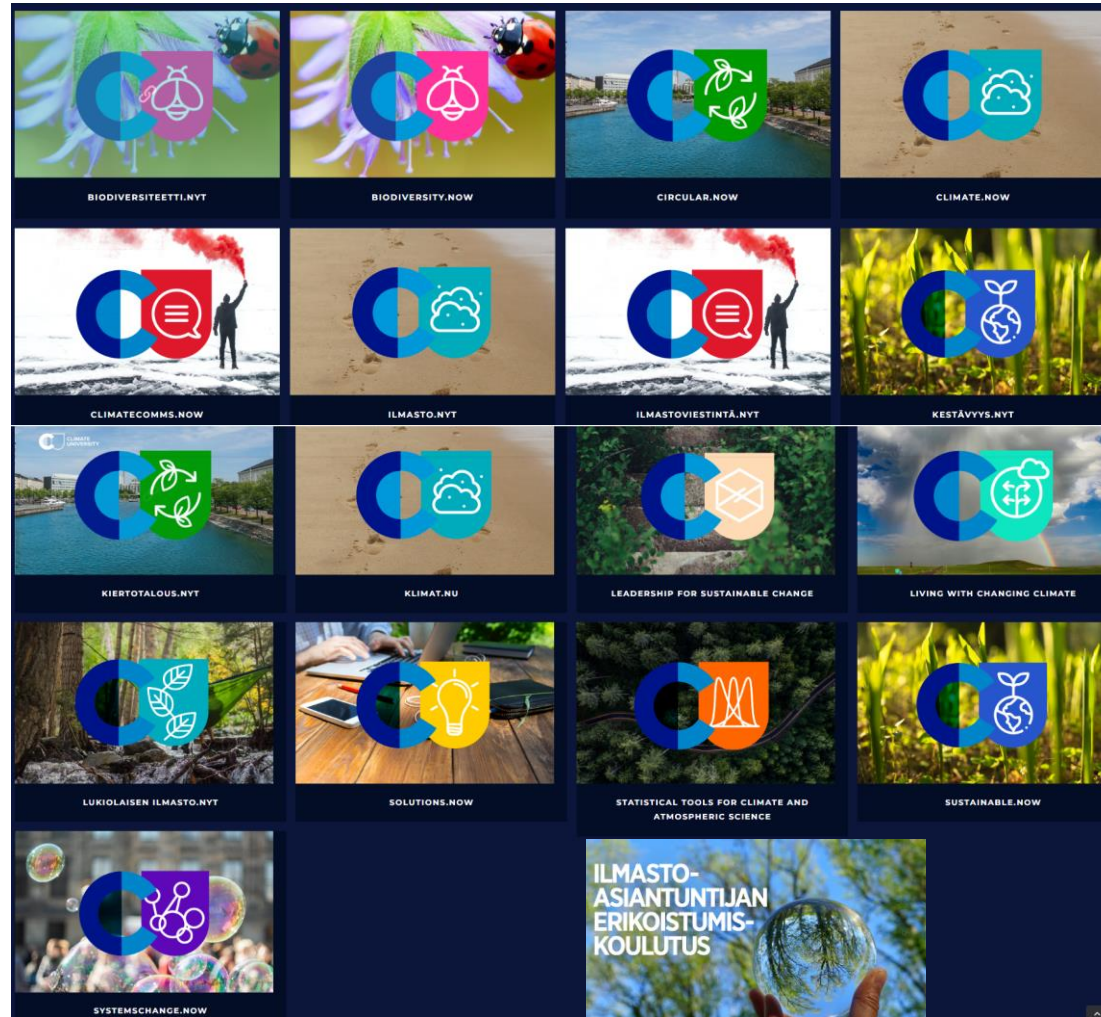
Micro-Certificate in Climate, Health and Cities



Strategic Sustainability for Business

A? Aalto-yliopisto
Aalto-universitetet
Aalto University

ClimateUniversity.fi



Sustainability Science Days 2024

Aalto University together with SRI and Univ. of Helsinki

**Be the progress
toward sustainability**

Finland | 10-14 June 2024

HELSINKI & ESPOO & ONLINE

Get your ticket today for the Sustainability Research + Innovation Congress 2024

in collaboration with Sustainability Science Days

Themes

- Green Transitions
- Technologies & Future of Work
- The Arctic and Beyond
- Powering the World

REGISTER TODAY

sricongress.org

Grand challenges: Designs for a Cooler Planet

Designs for a Cooler Planet exhibition has been arranged in Otaniemi for 5 years. In 2023:

- 4-week exhibition
- Reached **7000+** people with **350 hours** of dialogue
- Featured **22 innovations**
- Offered **30 free events**
- Arranged **20 guided tours**
- Received **6 donations**
- Feedback rating **9.1/10**

“The green shift to a more environmentally conscious and sustainable lifestyle is not merely a technical exercise, but also an important cultural and human endeavour.”

Tuomas Auvinen,
Dean of Arts

Radical Ceramics

A research group is pioneering potentially transformative alternatives to traditional concrete, the world's second largest source of emissions.

Trees and plants in a whole new light

A hyperspectral snapshot captures all the light in a scene, not just colours or infrared light. The extra information is useful for example in agriculture and conservation to food.

Textile revolution

A circular economy will be the new normal in the fashion and textile sector in the near future. It will change the way we design, manufacture and consume textiles and garments as well as business logics.



Designs for a Cooler Planet | Aalto University **Sept-Oct 2024**
in Otaniemi

Kiitos – Tack!



Aalto University
Solutions for Sustainability



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