Aalto University

Aalto University Story

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Strategic Support for Research and Education

Regional Cooperation in Higher Education
Challenges and Opportunities
October 7, 2011 in Essen

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Aalto University

Aalto University - Where *Science* and *Art* meet *Technology* and *Business*

A merger of leading Finnish universities in 2010

University of Art and Design Helsinki (TaiK)

Helsinki School of Economics (HSE)

Helsinki University of Technology (TKK)

A community of:

- 75,000 alumni
- 20,000 students
- 4,700 faculty & staff
- with 340 professors

Aalto University

Timeline of Aalto University

Photo by Aino Huovio
Graduate of Aalto University
School of Art and Design

1849 University of Art and Design Helsinki

1871 Helsinki University of Technology

1898 Helsinki School of Economics

1995 Joint teaching & research program IDBM

2005 Preparations for the Aalto university started

2007 Idea and vision for the new university proposed

2009 Student Union formed

2009 President appointed

2010 Aalto University opens

2020 **Vision:** Aalto is among the best universities in the world

What we aim to achieve

1. **Improve quality of research**
2. **Improve quality of teaching**
3. **Help our people to develop**
4. **Clarify focus and strategy of the university**

Actions for Aalto

- **Assess** the quality of current research
- Provide **better framework and infrastructure** for research
- Provide **long term funding** for research
- Focus on **quality of research** in recruiting and evaluations
- Provide better opportunities for **innovation through cross-disciplinary research**

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Actions for Aalto

- Create **inspiring learning centric culture**
- Increase **commitment** from staff and students to teaching and learning
- Focus on **quality of teaching** in recruiting and evaluations
- Improve **student recruiting practices**
- Reduce **student-faculty ratio** and shorten **studying times**
- Provide **multi-disciplinary learning opportunities**

Source: Project team

What we aim to achieve

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Actions for Aalto

- Provide a clear **career path** to personnel
- Provide mentoring and support on **career development** to all faculty and staff
- Offer **strong international partnerships** contributing to Aalto's strategic priorities to provide opportunities for staff development
- Offer **competitive salary and incentive** systems

Source: Project team

What we aim to achieve

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Actions for Aalto

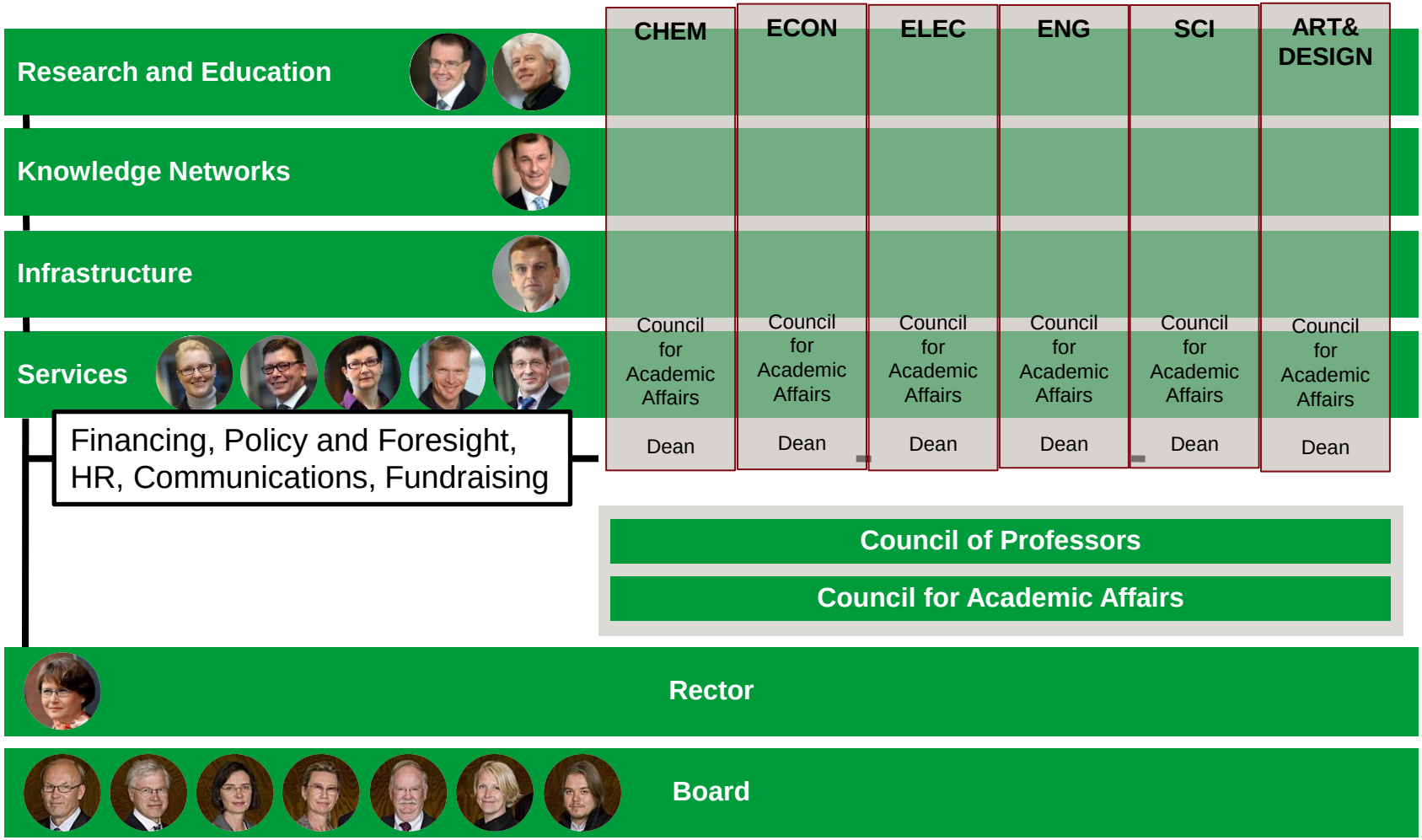
- Focus on **selected spear heads** in research on a world class level
- Focus on **important long term issues and areas of research**
- Encourage risk taking in **potential breakthrough initiatives**
- Put more emphasis on **masters and PhD** level education
- **Integrate** research, teaching and societal interaction across all Aalto's disciplines to create synergies
- Aim for **deep and sustainable social, cultural and economic impact**

Art, Business, Science and *Technology*

School of...

Art and Design	Economics	Chemical Technology	Electrical Engineering	Engineering	Science

Organisation



Vision, mission and values

Vision 2020

The best connect and succeed at Aalto University, an institution internationally recognized for the impact of its science, art and learning.

Photo by Kenneth Bamberg
Graduate of Aalto University
School of Art and Design

Our values

- **Passion**
  for exploration
- **Freedom**
  to be creative and critical
- **Courage**
  to influence and excel
- **Responsibility**
  to accept, care and inspire
- **High ethics**,
  openness and equality

Photo by Aino Huovio
Graduate of Aalto University
School of Art and Design

Mission

Aalto University works towards a better world through top-quality and interdisciplinary research, pioneering education, surpassing traditional boundaries, and renewal.

We educate responsible, broad-minded experts with a comprehensive understanding of complex subjects to act as society's visionaries and change agents.

Photo by Matti Kurkela
Aalto University
School of Engineering

Towards *world-class* 2020

Aalto University

Unique opportunity

Investment in the future

Laws that govern universities changed in Finland as of 2010: Aalto enjoys independent governance as a foundation-based university.

- **Annual budget** 400M€
- **Fundraising goal** 200M€
- **Match funding (x2.5)** 500M€

Vase by Hong Sun-Hwan
Graduate of Aalto University
School of Art and Design

How to get to the top?

Four pillars of the
Aalto University's strategy

1. **Research excellence**
   Original, impactful, interdisciplinary.
2. **Pioneering education**
   Towards flexible employment and responsible leadership.
3. **Trendsetting art**
   Art, architecture and design as key drivers for improving living environments.
4. **Societal impact**
   Adding value through entrepreneurship, business liaisons and societal interactions.

Photo by Heli Sorjonen

National and international impact

Sino-Finnish Centre

WORLD DESIGN CAPITAL HELSINKI 2012

STANFORD UNIVERSITY

AALTOENTREPRENEURSHIPSOCIETY

AALTO VENTURE GARAGE

Aalto University 阿尔托大学

Aalto in Shanghai

Close collaboration with the business world

The Aalto University builds and nurtures long-term strategic partnerships with numerous Finnish and international enterprises.

Aalto *spirit*

Aalto University

Promoting academic entrepreneurship

Aalto Center for Entrepreneurship and **Aalto Venture Garage**

Photo by Lari Haataja

Challenging the visual environment

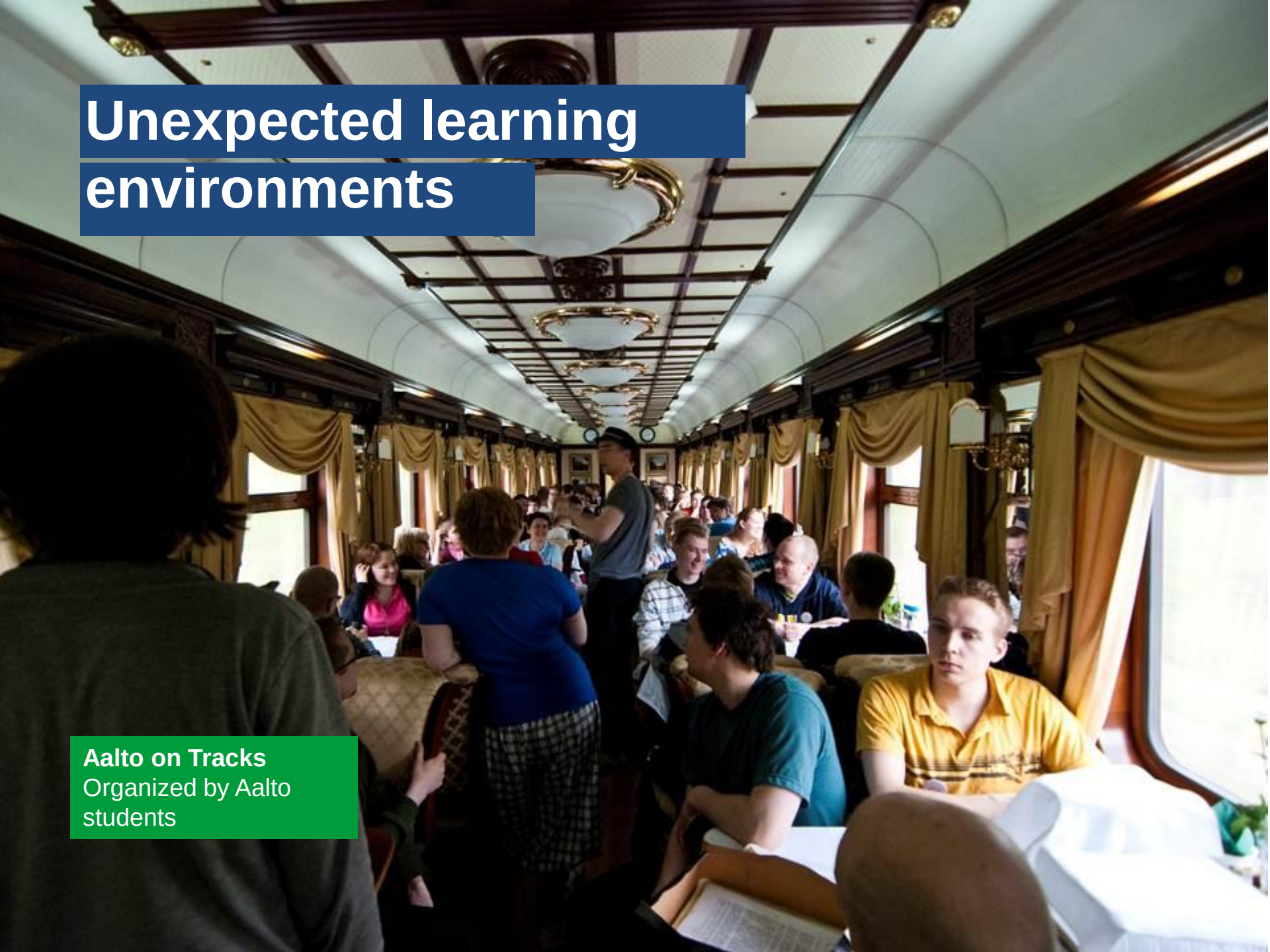
Elissa Eriksson
Graduated from School of Art and Design

Photo by Kira Leskinen/Aino
Student of Aalto University
School of Art and Design

Preventing unemployment of university graduates in fragile countries

Liisa Välikangas
Professor of Innovation Management, School of Economics

Unexpected learning environments



Aalto on Tracks
Organized by Aalto students

New forms of interaction

Aalto Leaders Dialogue
Leaders from across the organization

Lively student union

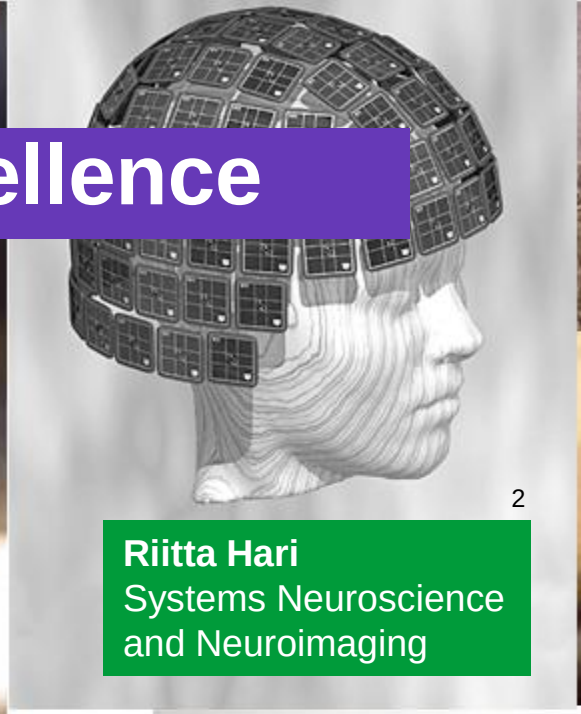
Aalto Student Union
Students are important part of Aalto University

In *focus* now

Areas of excellence

1

Maarit Karppinen
Materials Chemistry of Energy Conversion



2

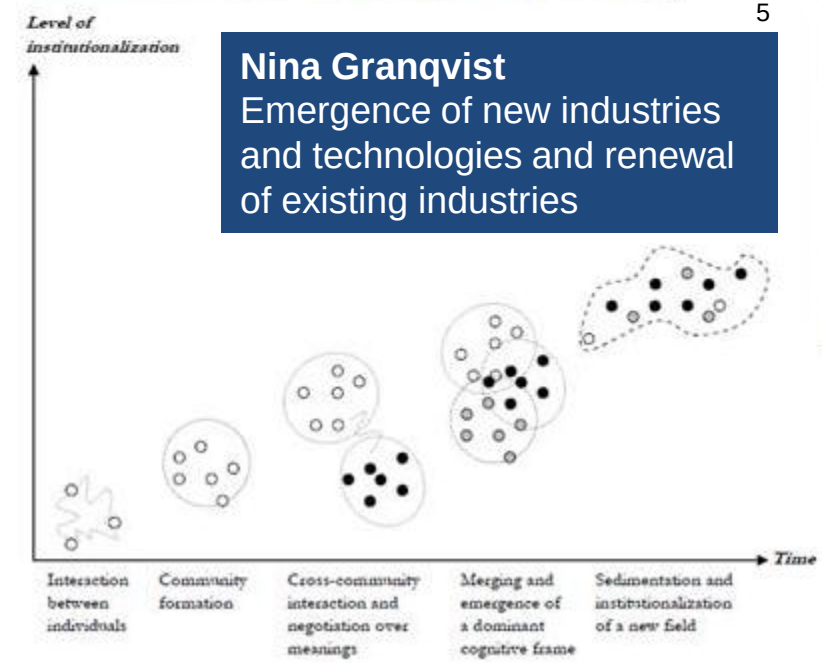
Riitta Hari
Systems Neuroscience and Neuroimaging

3

Olli Varis
Global and international water issues

4

Esko I. Kauppinen
High-performance thin-film transistors on plastic substrate



5

Nina Granqvist
Emergence of new industries and technologies and renewal of existing industries

6

Pekka Heikkinen
the use of wood as a modern building material

1. **Maarit Karppinen, Academy Professor, Laboratory of Inorganic and Analytical Chemistry**
   Photo by Adolfo Vera
2. **Riitta Hari, Neuroscientist, Academician, Academy Professori, Low Temperature Laboratory**
   Illustration by C. Carl Jaffe
3. **Olli Varis, Professor, Water & Development Research Group**
   Photo by Aalto University
4. **Esko I. Kauppinen, Professor, Department of Applied Physics and Center for New Materials**
   Photo by Aalto University
5. **Nina Granqvist, Academy of Finland Research Fellow, Department of Management and International Business**
   Image by Nina Grandqvist
6. **Pekka Heikkinen, Professor, The Wood Program**
   Photo by Aalto University

Project highlights

How to Pick Berries
Documentary film

The Luukku
Zero-energy house

1. **Miten marjoja poimitaan (How to Pick Berries)**
   Documentary film How to Pick Berries by M.A. student Elina Talvensaari from School of Art and Design has received many awards at various festivals, for example Bratislava International Film Festival, San Sebastian International Film Festival and Tromsø International Film Festival. Photo by Mauno Farinas (School of Art and Design).

2. **The Luukku zero-energy house**
   The Luukku house, designed by Aalto University students, was one of the three winners of the Architecture Prize and among the top five in the Solar Decathlon 2010 competition in Madrid.

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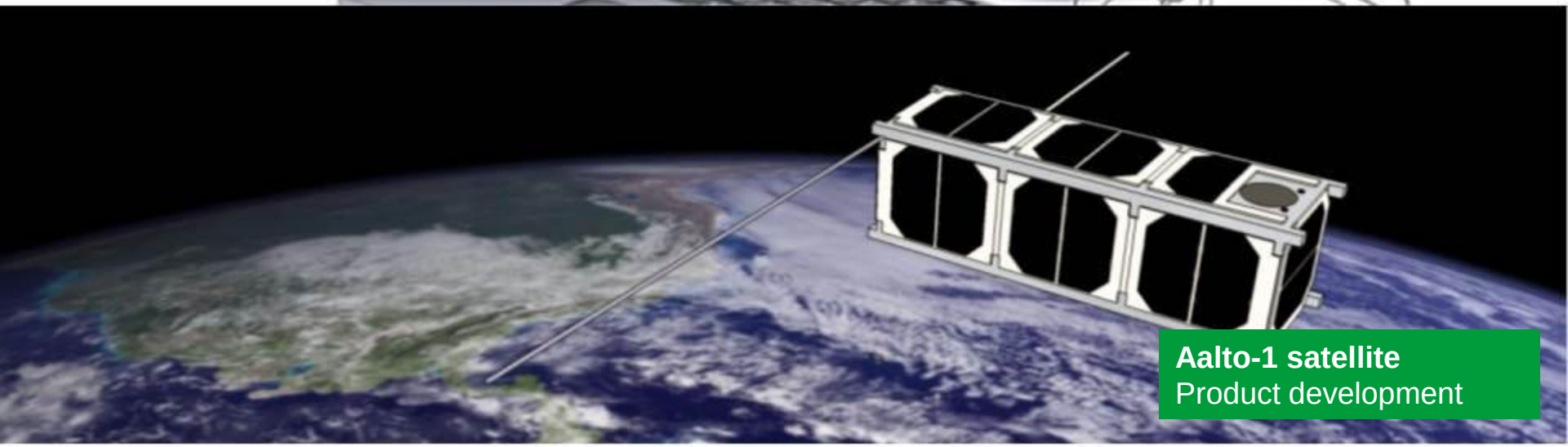
Project highlights

Easily recyclable laptop
Product development



Aalto-1 satellite
Product development

1. **Easily recyclable laptop**
   Aalto University students have developed a recyclable laptop computer together with Stanford University students on a joint ME310 product development course.

2. **Aalto-1 satellite**
   Students at Aalto University are building Finland's first satellite. Aalto-1 is expected to be launched into space in 2013 and the plan is that most of the design, construction and testing of the device will be carried out by students.

Aalto University

Project highlights

Blue1 aircrafts
New appearance

1. **Aalto University students designed a new appearance for Blue1 aircrafts**
   Aalto University students of graphic design came up with a new physical appearance and concept for the planes during their course on corporate identity design.

Thank you for your attention

Photo by Tuuli Sotamaa
Aalto University