

A model of Aalto University – future oriented multidisciplinary university with centuries of experience

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The Aalto University in Finland is building a new university concept, where art and science meet technology and business. Aalto is creating new models for multi-disciplinary research and education to strengthen its role in national innovation system. Aalto is a merger of three universities: The Helsinki School of Economics, Helsinki University of Technology and The University of Art and Design Helsinki, and is implemented as a part of Finnish university reform launched 2010.

Case Aalto University: new models in learning and education for innovations

Mankind is facing major challenges. Multidimensional global changes, particularly rapid population growth and its impacts on energy consumption, food production, urbanisation, traffic solutions, environmental pollution and the resulting climate change are matters that concern all of us. Many western countries, Finland at the forefront, are also dealing with the consequences of population ageing. We do need new social, design, technological and business innovations that allow us to find answers that are effective both locally and globally.

Universities have the chance to play a key role in this change. However, this will require a radical reform of operating models, degree programmes and research at universities. They should encourage and promote multidisciplinary co-operation and students centred learning. Risk taking, mixture of diverse expertise and students active co-creator role should be taken as resources in higher education. Courses and study projects in all degree programmes should challenge students, future professionals, from different fields to meet and collaborate. Crossing boundaries, open sharing and respect for different types of expertise are the keys to innovations, and to find functional solutions to the challenges of the future.

And learning doesn't only happen through courses and study projects. The strong impact of digital culture on everyday life - opportunities to communicate, obtain, share and build new knowledge along with new ways to act and influence – challenge universities to reform their academic teaching and learning on a broad scale. Universities have to take advantage of these opportunities.

The Aalto University (<http://www.aalto.fi/en/>) in Finland is building a new university concept, where art and science meet technology and business. Established in 2010, the Aalto is a new university with centuries of experience. The university was created from the merger of three universities - The Helsinki School of Economics, Helsinki University of Technology and the University of Art and Design Helsinki – and implemented as a part of wide university reform in Finland. One of the reform's main objectives is to strengthen the role of universities in national innovation system.

Aalto University has an ambitious goal to make the needed reforms happen within couple of years. High-level research as well art and design artistic activities, excellence in education and strong international focus supported by professional leadership and services and close collaboration with companies and society are the key factors to make the quality steps come true.

The combination of technology, art, design and business and the new structure of six schools open up inspiring possibilities for high-quality and multi-disciplinary research and education. The University is strongly future-oriented and will create an internationally attractive environment for learning and research. The tenure track, academic career system, with strong international recruitment is the foundation for the key Aalto's objectives.

Curricula reform of Bachelor and Master programmes based on future scenarios, visionary leadership of degree programmes and pedagogical studies for teachers related with advance on tenure track are tools to promote rethinking and innovating courses and teaching. A student-centred culture that encourages people to cross borders and passionately learn new things is fostered. Entrepreneurial spirit joint with students' active role will enhance reforms in degree programmes and build new learning and teaching culture. Students are seen as co-creators and stimulated by trust, support, freedom and responsibility.

As a vice president of academic affair (learning and education), I'm in charge of leading reforms in learning, teaching and degree programmes. My presentation focuses on key ideas, action points, experiences and results of the first three inspiring years of Aalto University.

Below some examples of spearhead schemes, projects and openings to implement learning, teaching and education reforms (faster):

New platforms

- **Design Factory** - <http://www.aaltodesignfactory.fi>

See also DF networks with Tongji University in Shanghai China and Swinburne University of Technology in Melbourne, Australia

- <http://www.aaltodesignfactory.fi/network/>

- newest Design Factory opened in November 2012 in Chile, hosted by Duoc UC (part of Pontifica Catholic University of Chile)

- <http://www.aaltodesignfactory.fi/next-step-south-america-the-creation-of-df-chile-at-duoc-uc/>

- **ADDLab**, Aalto Digital Design Laboratory - <http://addlab.aalto.fi>

- **LabLife3D learning environment** for biotechnology and chemistry education situated in Second Life

- <https://sites.google.com/site/lablife3d/>

Multidisciplinary Master Degree programmes

- International Design Business Management - <http://idbm.aalto.fi>

- Creative Sustainability - <http://acs.aalto.fi>

- Aaltonaut programme - interdisciplinary studies for Bachelor's level students in the fields of Arts and Design, Business and Engineering. A launch for creating independent interdisciplinary Bachelor Degree programme

- <http://blogs.aalto.fi/aaltonaut/>

Student based and led activities and projects

- Aalto Entrepreneurship Society - <http://aaltoes.com>

- Start-up Sauna - <http://startupsauna.com/en/>

- Aalto Global Impact - <http://aaltoglobalimpact.org>
- Aalto on Tracks - <http://aaltoontracks.com>
- Aalto on Waves - <http://www.aaltoonwaves.com>