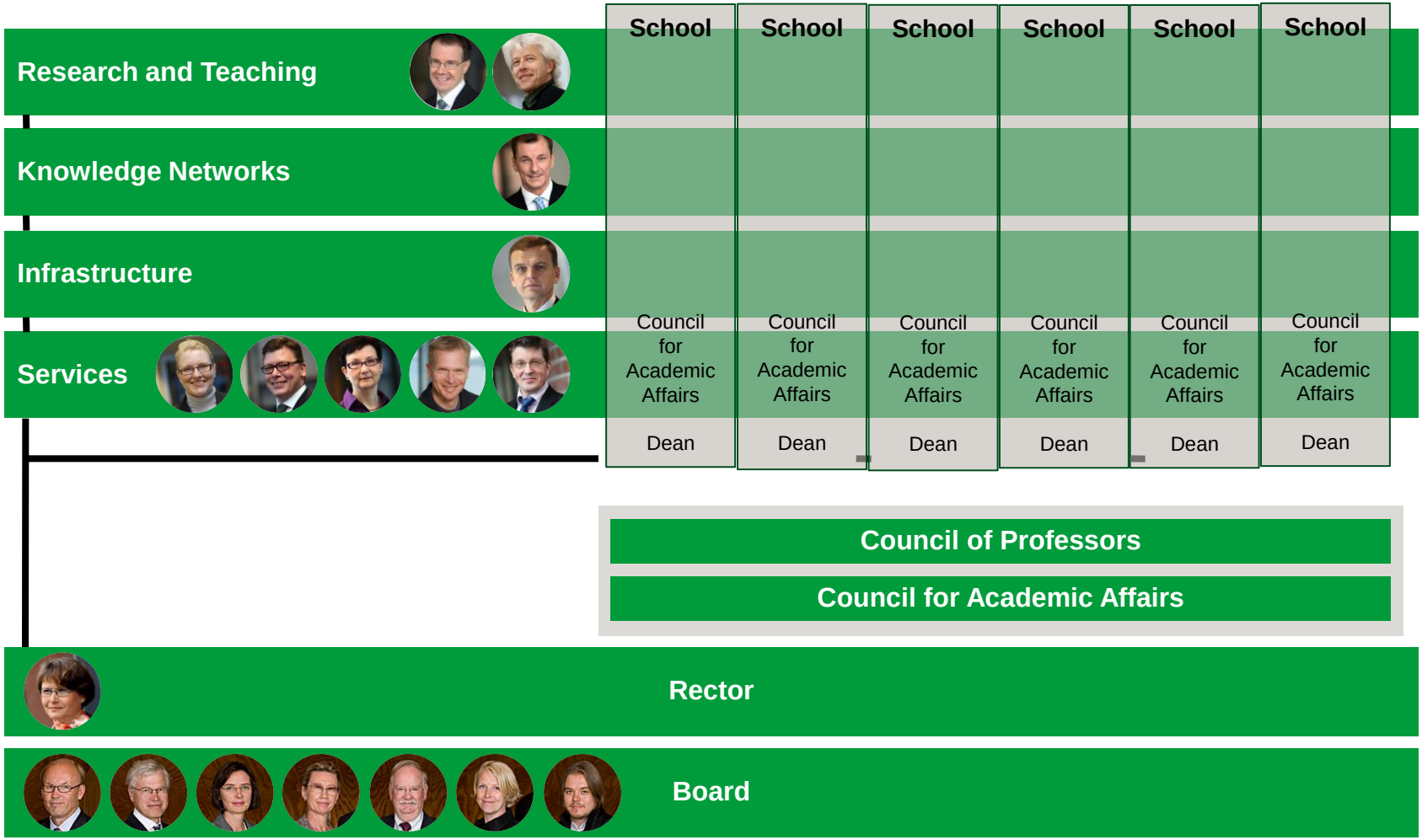
Strategic Support for Research and Education

Lauri Saarinen

Aalto University

Organisation



Tasks

Strategic Support for Research and Education

- supports the President and the Vice-Presidents in Academic Affairs in strategic planning regarding research and teaching at Aalto University
- participates in implementing the strategy.

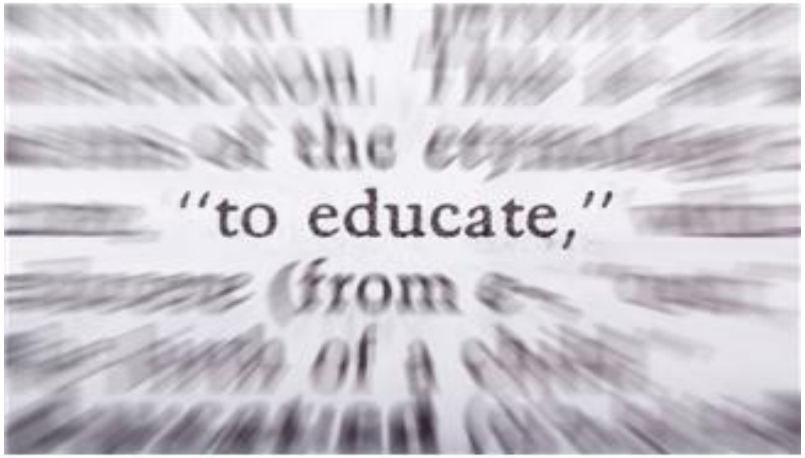
The unit

- enables and promotes high-quality research, doctoral education and teaching
- plans and organizes pedagogical education for teachers and supports schools and departments in their teaching development activities, incl. ICT in education.
- provides student support, and develops tutoring, pedagogical leadership and mentoring programs
- planned and implemented the Teaching Evaluation Exercise, TEE in 2010-2011

Organisation

There are four areas in the service:

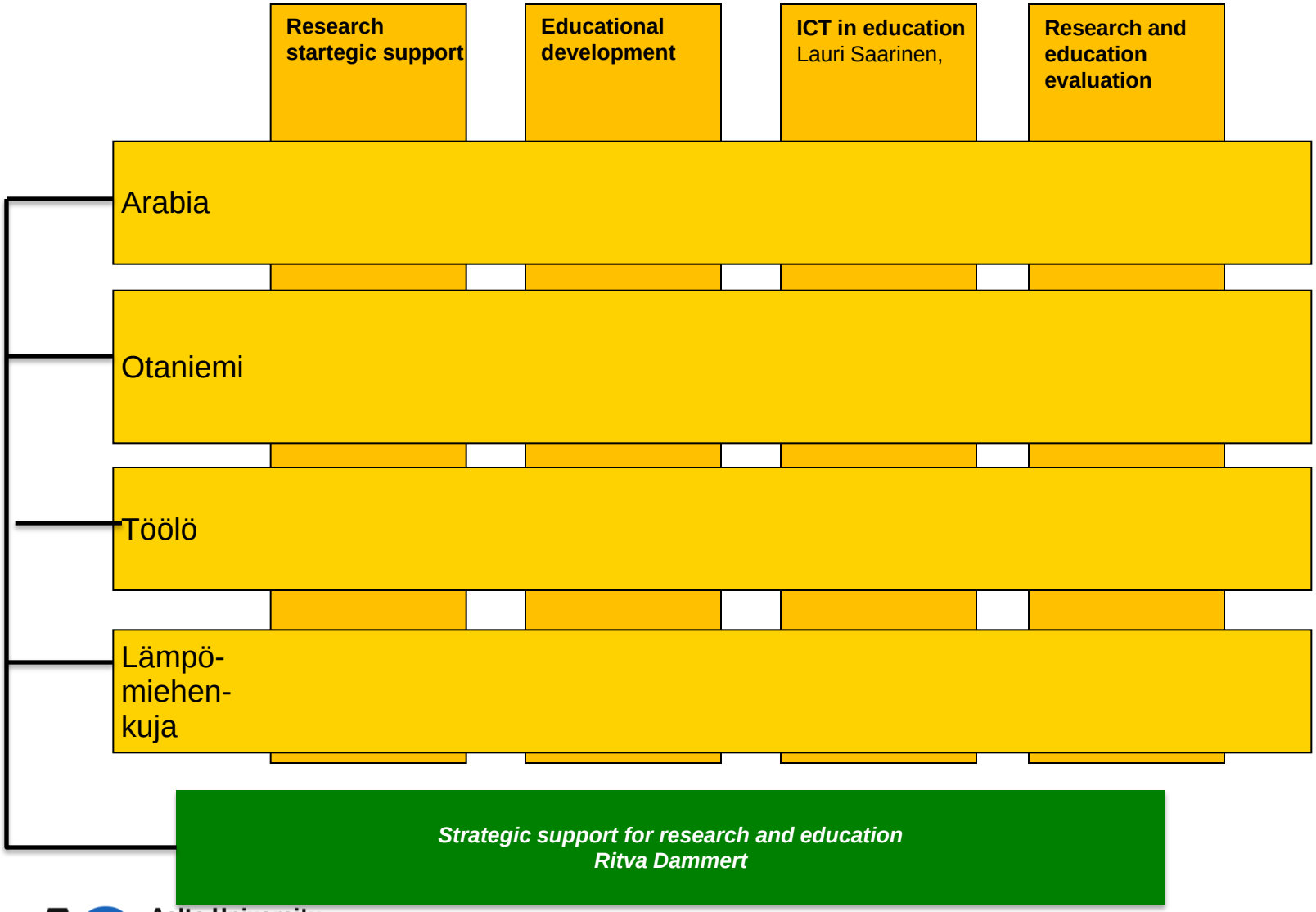
- strategic support for research
- educational development
- ICT in education
- evaluation of research and teaching



Organizationally the unit functions under direct supervision of the Vice Presidents of Academic Affairs.

The support services for development of education, and ICT in education are provided by teams and their staff located on campuses.

Strategic support for research and education- Personnel in 2011



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* Psyhcologists (4 FTE)
** supporting staff (2 FTE)

Strategic Support for Research and Education

Strategic Support for Research

High quality research environments and excellent prerequisites for research

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Tasks

- To support the planning of research strategy: President and Vice Presidents; schools
  - Preparing research funding allocations
- To enable and promote high quality research:
  - New instruments for supporting research and doctoral education
- To prepare general guidelines and principles for Aalto University
  - Doctoral education, Centres of excellence, FiDiPro etc.
- To manage tenure track process together with HR
- To coordinate doctoral programmess and assist in their management
- To manage prioritizing funding proposals (doctoral programs, FiDiPro)

Strategic Support for Research and Education

Educational Development Team

High quality learning environment building and development to support high quality learning

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Goals

The team serves, and develops teaching and studying at Aalto University by:

- Offering pedagogical training and development programs, courses and opportunities for teachers
- Offering support for students in their study efforts
- Offering support for study programs and programs leaders to help their development efforts
- Offering local support for programs and teaching personnel in their educational development efforts.
- Participating and starting educational development projects

The aim is to help staff and students to have a high quality teaching and learning environment to enable high quality *learning*.

Current activities *2012*

- Action plan of the team for 2013 and beyond
  - Continuing Aalto Pedagogical training programs (25 ects + 35 ects)
  - Continuation of supporting program leaders in their work
  - Continuation of supporting students in their study effort (study psychologists services)
  - Supporting study programs in development efforts based on results from Aalto Teaching Evaluation Excercise
  - Participating locally in study program and course development efforts

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ICT in Education Team

Blended **approach in enhancing *teaching,* studying and *research***

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Goals

The team evaluates, develops and supports ICT usage in teaching, studying and research by

- Offering and developing *appropriate* tools and services for teaching, studying and research
- Encouraging, supporting, training and guiding our *academic staff* in using ICT in teaching and research
- Supporting and coordinating internal *education development projects* in Aalto University

The aim is to *perfect the teachers* in being able to *choose* the appropriate methods and tools in different contexts to reach their *pedagogical goals* in teaching.

In *practise*

- Pedagogical development of blended learning in collaboration with *teachers*
  - Appropriate and useful blending of ICT in teaching and studying – context based tailoring of the learning environment to enhance learning
  - Instruction, consultation, education, workshops – support availability on campuses
  - Guides, exemplars, examples and training – cultural change through gradual development steps
- Learning and related *system's* evaluation, definition, testing, implementation, support and consultation
  - Benchmarking, support through helpdesk, research collaboration – professional development work in academic environment
- Developing work and support *processes*
  - Networking, collaboration, service production – comprehensive focus
  - Quality enhancement – process development in eLearning

Current activities *2012*

- Action plan of the team for 2013 and beyond
- Roadmap for ICT-based learning environment development
- Adoption of university wide systems (ie. course portal Noppa, LMS's (Optima, Moodle), blogs, wikis, Second Life, …).

- Producing guides and pedagogical exemplars of ICT in Education (ICT systems and learning methods).
- Developing templates (in LMS's and wikis) for courses and collaboration.
- OpenCourseWare planning – consortium membership and working processes of the university
- Offering local support for teachers on all three campuses.
- Networking with teachers and other support units (wiki, mailings and meetings and a roadshow).

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Teaching Evaluation Exercise

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Goals of the TEE

- To identify strengths and weaknesses in teaching and education programmes
- To find out and share best practices, to develop next practices and create new innovative teaching approaches.
- To recognise areas that require specific action for improvement.
- To obtain information that can be used for enhancing students' learning.
- To obtain information that can be used for sustaining teachers' work.
- To support the building of Aalto University quality assurance system.
- To develop a support system for future evaluations.

What, when and who?

- Degree programmes
- Issues such as planning and managing the degree programme, implementing courses, developing the degree programme
- During the academic year 2010-2011
- Each Aalto School has its own external panel (6 panels)
- Student involvement important during all stages

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Challenges and opportunities

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Challenges

- A new unit creating its profile and visibility
- Good ”services” to be offered
- Good examples and experiences needed
- Decentralized organisation => a challenge for a director and personnel of the unit

Opportunities

Possibilities to

- create something new
- share and disseminate good practices
- develop multi/interdisciplinary/educational collaboration
- increase appreciation of teaching
- utilise the expertise and know-how of the personnel across the schools
- use staff of the unit more effectively

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Today's Agenda 23.4.2012

To study Finnish innovation system, particularly best practices in incorporating e-learning into the educational processes within the nanotechnology field.

Aalto University as a showcase.

1. Principles of formation of educational content for distance learning
2. Process analytics and evaluation, and their influence on the optimization of the educational content
3. Motivation factors in students' participation in the process of distance learning

Principles of formation of educational content for distance learning

Examples of different approaches

- MIT - http://ocw.mit.edu
  - MIT OpenCourseWare (OCW) is a web-based **publication** of virtually all MIT course content. OCW is open and available to the world and is a permanent MIT activity.
- Open University UK - http://www.open.ac.uk/
  - The Open University is a world leader in modern distance **learning**, the pioneer of teaching and learning methods which enable people to achieve their career and life goals studying at times and in places to suit them.
- Aalto - http://www.aalto.fi/en/about/strategy/
  - Aalto University is a new multidisciplinary university, where science and art meet technology and business.
  - Blended learning, and the production and open sharing of teaching and learning materials will become key **aspects** of the learning community's operations.

Principles of formation of educational content for distance learning

AALTO in practise

- Campus-based activity on three locations
- Blended Learning as a strategic development goal
- Most teachers create their own material
- Material is delivered through several systems – https://wiki.aalto.fi/display/AaltoPilvi/
  - Moodle / Optima,
  - Wiki, Blogs,
  - Adobe Connect / Webex
  - Social media
- Support units
  - IT Helpdesk (infrastructure and technical support)
  - ICT in Education team (applications to support pedagogical solutions)

Process analytics and evaluation, and their influence on the optimization of the educational content

- Quality management in general
  - RAE-project followed by TEE-project – external panel evaluations
  - The Finnish Higher Education Evaluation Council (FINHEEC) audits all Finnish Universities
  - External Programme Accreditations and other evaluations of the School of Economics (AACSB, EQUIS, AMBA, CEMS, PIM) - http://econ.aalto.fi/en/about/accreditations/
  - University's Annual Resource Dialogue – resource allocation.
  - Personal Development Discussions – rewards?

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Process analytics and evaluation, and their influence on the optimization of the educational content

- Current Situation @Aalto
  - Teachers own and are responsible for their material
  - Copyright and IPR policy in the future?
  - Opennes is teacher's choice
- Aalto Open Courseware Project
  - OCW – Open CourseWare – 10th anniversary
    - Course Material Delivery/Publication
    - Not including teaching
    - Seldom self-study oriented
    - Includes all (multi)media.
    - Portal in the future? Quality evaluation process?
    - OCW Consortium Membership?
- OER – Open Educational Resources
    - Not course related. "Anything goes".
- Online Courses
    - Stanford University and the Massachusetts Institute of Technology (MIT), are experimenting with free online courses that give thousands of motivated students around the world the opportunity to learn sophisticated skills and earn informal credentials.

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Motivation factors in students' participation in the process of distance learning

- Problems in participation
  - Class-room lectures sometimes skipped > exchange of notes
  - Worries about reduced participation due to lecture capture and other online services
- Learning centered culture a strategic development goal
  - A learning-centred culture challenges teachers and researchers to readdress their teaching methods, improve their performance in mentoring students and strengthen the link between education andresearch. Students are guided towards a strong commitment to their studies and to taking responsibility for their own development. The University is a true learning community and its environment encourages and inspires the active development of new ways of learning and building expertise.

General factors in in the process of distance learning

- Interaction through discussion boards demands activation of the discussion.
- Online processes require extra effort on process planning, scheduling and communication
- The use of online activities on a course can best be motivated when
  - The students are not within the same geographical area.
  - Students cannot assembly easily for other reasons.
  - Extra possibilities for discussion support the learning process.
  - In some cases the numbers of participants is not large.
  - It saves costs for organizing teaching and learning (without hindering learning).
  - Students are familiar with ICT technology.
  - The maintainer is able to publish materials and managing the course (or support functions are well resourced and organized).