



Aalto University Annual Report 2014

May 2015

Aalto University

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Dear readers,

Aalto University is five years old. We started out with enthusiastic and ambitious goals. Throughout the community, that enthusiasm has developed into a special kind of Aalto spirit. We have made some big decisions in order to reach the targets set for us. I am delighted to be able to say that we have progressed rapidly and already achieved good results.

When Aalto University was founded, it was given the national mission of boosting Finnish success, making a positive contribution to building of the Finnish society, its internationality and its competitiveness, and promoting the wellbeing of humans and the environment by means of high-standard research and teaching. Aalto University strives to produce solutions to the greatest challenges facing society and to create new opportunities to, for example, broaden the export industry base that is so vital to Finland.

We began by combining three successful and established universities. Rather than clinging to old habits, we began to systematically do things in a new way. Looking back over the past five years, we made the right choices. The visibility of our research in major international publications has continuously increased. We have been able to attract top talents from Finland and abroad. The university's artistic activities have gained respect around the world and won prestigious prizes.

The bold combination of science, art, technology and business was important to us from the very beginning. Different types of encounters make it possible to find new dimensions and achieve even the most impossible-sounding goals – a pioneer always prevails. The work of our researchers to develop areas

like energy production, digitalisation and health technology have produced new knowledge and the seeds for innovations. During the year, our schools have signed new partnership agreements with companies such as ABB, Fazer and Valio.

We have reformed our degree programmes to meet the needs of an evolving working life. Aalto University students are progressing more smoothly in their studies and learning results are improving. We pay close attention to feedback and try to support students in the various phases of their education. The activities of our students to promote entrepreneurship are unique, even on a global scale. Last summer we were recognised for supporting entrepreneurship and innovation activities in a report published by the renowned Massachusetts Institute of Technology (MIT).

Our core functions of research, artistic activities and teaching are supported by an efficient and productive service organisation. A major development programme was implemented in services and, as part of that process, the entire service organisation was restructured at the end of last year.

I would like to warmly thank the whole community – both staff and students – for your valuable work during our first five years of operation. We are also very grateful to our university's many partners, funders and other stakeholders for the cooperation of this past year.

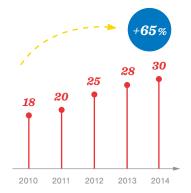
Tuula Teeri President

Aalto University in numbers 2010–2014

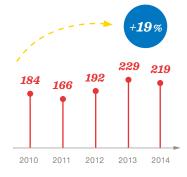


Competitive research funding (M€)

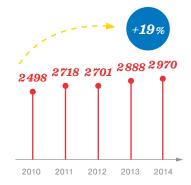
The number includes external competitive research funding from the Academy of Finland, Tekes FiDiPro and EU research funding programmes.



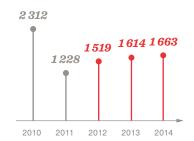
Share of international faculty (%)



Doctoral degrees



Number of refereed articles in scientific publications



Master's degrees

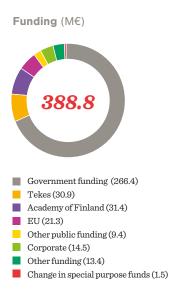
The number of master's degrees was exceptionally large in 2010 and small in 2011 due to the degree reform in the field of science and technology. The normal level is approx. 1 600 degrees per annum.

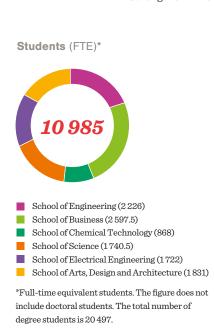
Aalto University supports Finland's success

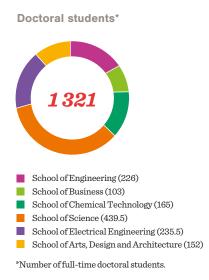
Determined progress towards the strategic targets has produced good results during the first five years:

- Research has focused on the university's strengths, which, on the basis of international evaluations and quality indicators, represent significant expertise and future opportunities.
- Degree programmes have undergone a major reform.
 While the number of bachelor's degree programmes has been reduced, their content has been broadened. The number of optional courses and opportunities for mobility between programmes have been significantly increased.
 Aalto University has seven bachelor's degree programmes, one of which is in English. The results of the reform are already visible and studies are now progressing at a faster pace than five years ago. The new master's degree programmes provide more in-depth competence in the field of specialisation chosen by the student. Doctoral education is implemented in school-specific doctoral programmes.
 Aalto University also participates in national doctoral education networks.
- New types of learning environments provide the Aalto community and its partners with inspiring and innovative ways of working. For example, Design Factory brings together multidisciplinary and practical study possibilities. It encourages students and companies to collaborate and inspires interest among the media and visitors. The concept has also been successfully exported to other countries.

- Aalto University's artistic activities and design competence
 are the cornerstones of the creative economy and produce
 unique added value for sustainably developing a service
 society and living environments. The success stories of
 2014 include major prizes in film and fashion design, as
 well as the combination of design expertise and chemical
 technology in the design of new textiles.
- The tenure track career system for professors has proven
 to be a success. With the implementation of the new
 career system, the professorships have been directed at
 strategic areas of strength. Since 2010, the university has
 appointed more than 200 new professors to the new tenure
 track career system, and approximately one third of new
 professors come from outside Finland.
- University support services have undergone major restructuring. At the end of 2014, a new organisation that supports teaching, research and artistic activities in a costeffective and customer-oriented manner, was in place.
 The development will continue in 2015.
- In 2011, Aalto University decided to locate its main campus at Otaniemi. Bachelor's students in business will move to Otaniemi in autumn 2015 and the School of Arts, Design and Architecture is scheduled to follow in 2017. In collaboration with partners, the area has developed into a vibrant research, student and innovation community that is rapidly becoming more international. Construction of the core area and the opening of the new metro station will further strengthen innovation community activities.









Vision and goals

Vision	The best connect and succeed at Aalto University, an institution internationally recognised for the impact of its science, art and learning.					
Goal	A world-class university by 2020.					
Universal mission	Contributions to a better world National Competitiveness and welfare of Finland					
Core strategies and KPIs	Research excellence Original, Students in focus, a new learning culture and interdisciplinary Pioneering education Art, architecture and design as key drivers for improving living environments For improving living environments Societal impact Adding value through entrepreneurship, business liaison and societal interactions					
Strategic enablers Leadership; Internationalisation; Services; Infrastructure						
Culture built o	Passion: Courage: Freedom: Resnonsibiliti: Integriti					

University's six schools

School of Engineering

Graduates in 2014

29 Doctoral degrees
350 Master's degrees
Bachelor's degrees

The total number of graduates includes 3 Licentiate degrees.

748

Focus areas

- · Arctic technology
- · Mechanics and material technology
- · Multidisciplinary energy technologies
- · Sustainable built environment
- Systems design and production

Strengths

- Renew technologies for industry and built environment based on scientific knowledge and research
- Create innovative solutions in focus areas for sustainable development
- Provide high-quality teaching and educate experts valued by society

Major infrastructures

 Aalto Ice Tank – Aalto University's multipurpose basin

The multipurpose basin is used for researching physical phenomena associated with ice, ships, and marine structures, and for testing theoretical models covering arctic marine technology and ice mechanisms.

Highlights of 2014

Collaboration with the technology industry

A networking event organised by the school in February brought together nearly 70 managing directors from Finnish technology companies and more than 150 Aalto University professors. The opening address was given by **Pekka Lundmark**, President and CEO of Konecranes. In terms of teaching, the collaboration continued in a traditional manner: 75% of master's theses involved cooperation with industry and companies.

Funding for international ice infrastructure

Major funding was received for renewal of the Aalto Ice Tank multipurpose basin. Professor **Jukka Tuhkuri** and Professor **Pentti Kujala** were responsible for the funding applications. The aim is to build a globally unique research environment to assist Finnish and international universities, companies and other partners in researching and developing ships and marine technology structures in extreme conditions.

Equipment for industrial internet innovations

The expansion of the Digital Design Laboratory (ADDLAB) in early 2014 provided significant additional space for 3D printing devices. The school also began using a new friction stir welding machine, which in combination with digital design and manufacturing will enhance the development of industrial internet innovations.

Innovation turns carbon dioxide and slag into a valuable end product

Doctoral Candidate **Arshe Said**, Postdoctoral Researcher **Sanni Eloneva** and Professor **Mika Järvinen** are energy technology researchers who built the world's first pilot plant that can turn the by-products of steel manufacturing into precipitated calcium carbonate. A plant that produces valuable raw material needed by industry is an important phase preceding commercialisation of the innovation.

Science for technology

The task of the school is to scientifically renew technologies related to the technology industry and the built environment. In 2014, the school researchers published twice as many high calibre scientific articles as in 2010. A total of 29 doctors graduated from the school, which is nearly 50% more than in 2010.

School of Business

Graduates in 2014

19 Doctoral degrees
410 Master's degrees
452 Bachelor's degrees

881

Focus areas

- · Microeconomics
- Behavioral finance and financial markets
- · Management systems and decision making
- · Strategic management in the global context
- Customer behavior
- New business creation: entrepreneurship, new business models, and the service economy

Strengths

- Highly ranked internationally due to its teaching and research
- Extensive high-level cooperation
- · Leading international partners
- Triple Crown accreditation

Highlights of 2014

Academy of Finland funding for big data research project

The Academy of Finland awarded a grant of some €400 000 to the *Strategy Work and Big Data* research project. The project will examine how information systems and business analytics change strategy work and management. The project runs from 2014 to 2017 with Professor **Henri Schildt** as Director.

Homecoming Day brought alumni back to campus

In August, a total of 600 alumni and influential business people took part in the first *Homecoming Day*. Participants discussed how to get Finnish society back on track and how Finland's competitiveness could be enhanced. The President of the Republic of Finland **Sauli Niinistö** also spoke at the event. Discussion of the alumni day themes continued actively in social media. The next *Homecoming Day* will be held in 2016.

Fazer and Valio are new partners

Fazer and Valio joined the School of Business partner programme in 2014. Both companies have a long history of close collaboration with the school in research and teaching. The partner programme reinforces the partnership between companies and the School of Business.

Matti Keloharju receives encouragement award from OP-Pohjola Group Research Foundation

OP-Pohjola Group Research Foundation granted an encouragement award of €20 000 to Professor **Matti Keloharju** in recognition of his major achievements in financing research. Keloharju is one of the world's leading researchers in the field of behavioural finance.

School of Chemical Technology

Graduates in 2014

Doctoral degrees

Master's degrees

Bachelor's degrees

323

Focus areas

- · Process technology
- · Industrial biotechnology
- Biomaterials science
- Metals and minerals recovery processes
- · Active and functional materials

Strengths

- · The impact of cutting-edge research on society
- Combining know-how in the natural sciences with expertise in bioscience and engineering

Major infrastructures

• Bioeconomy infrastructure

The research carried out using the school's bioeconomy infrastructure is concentrated on process technology, industrial biotechnology, and new materials.

Highlights of 2014

Two projects included in Tekes' strategic openings

Professors Markus Linder, Heikki Ojamo and Alexander Frey participate in the *Living Factories* project, which combines biological functions with engineering to create new products and processes. The University of Turku and VTT are also involved in the project. Professor Sami Franssila is taking part in the *3i – Innovative Induction Initiative* project, which, if successful, will revolutionise the treatment of coronary thrombosis and brain damage. The research is being conducted in cooperation with the University of Helsinki and HUS.

Stronger bioeconomy collaboration with VTT

The Academy of Finland awarded nearly $\[\in \]$ 770 000 in funding to the *Bioeconomy Infrastructure*. The goal of the joint research infrastructure of Aalto University and VTT is to find new solutions for the technology challenges facing the bioeconomy. Academy Professor **Jukka Seppälä** runs the infrastructure. A total of four joint projects of Aalto and VTT were selected for the *Forest meets chemistry* research programme through an application process carried out last spring.

Domestic birch used to weave fabric for Marimekko

Ioncell fibre is an ecological solution to the growing demand for textiles. As the first evidence of the fibre's new opportunities, a dress was produced in close cooperation with Marimekko, and introduced at the company's March fashion show. The production method has been developed by Professor Herbert Sixta's research group. It is based on a liquid salt developed under the guidance of Professor Ilkka Kilpeläinen at the University of Helsinki. The resulting fibres are carded and spun at the University of Borås in Sweden.

Catalyst can bleach pulp in seconds

Professor **Tapani Vuorinen**'s research group has developed a method for rapid bleaching of pulp. Catalytic bleaching of pulp can achieve the desired outcome in two bleaching stages – or sometimes only one – in less than a second. The method saves time, energy and chemicals. As an invention, catalytic bleaching is so promising that all of the companies that committed to the research three years ago – Stora Enso, UPM, Metsä Fibre, Kemira and Andritz – want to continue the research project.

School of Science

Graduates in 2014

Doctoral degrees

Master's degrees

Bachelor's degrees

The total number of graduates includes 7 Licentiate degrees.

Focus areas

- Computational and mathematical sciences
- · Condensed-matter and materials physics
- · Energy sciences
- Computer sciences
- · Neuroscience and -technology
- Creating and transforming technology-based business

Strengths

- · World-class research in a number of areas, including five Academy of Finland Centres of Excellence
- Degree programmes attract the best science and technology students nationally
- · Strong doctoral education and a high level of internationalisation
- · Cooperation with companies and supporting technology-based entrepreneurship

Major infrastructures

· Low Temperature Laboratory (part of the OtaNano infrastructure)

A dedicated environment for research in low temperatures and nanoelectronics.

· Nanomicroscopy Center

(part of the OtaNano infrastructure)

Features a range of high-resolution microscopes lending support to imaging and examination of soft materials, biological specimens and hard materials.

Aalto NeuroImaging

Specialised in functional brain imaging and composed of three mutually supplementary equipment environments.

Science-IT

Part of the Finnish Grid and Cloud Infrastructure (FGCI), provides computational capacity for different branches of science.

Highlights of 2014

Two new Academy of Finland Centres of Excellence

The Centre of Excellence in $Molecular\ Engineering\ of$ Biosynthetic Hybrid Materials HYBER began its six-year period under the leadership of Professor Olli Ikkala. School researchers are also participating in the Centre of Excellence on Research on Solar Long-term Variability and Effects ReSoLVe, which started up in 2014.

Personalised health care and using biological systems

School's researchers are involved in two strategic openings funded by Tekes: Digital Health Revolution and Living *Factories*. Worth a total of more than €8 million, the projects will develop personalised health care and novel industrial processes using biological systems.

Academy of Finland support for research infrastructures

The School of Science's Otaniemi research infrastructurefor micro- and nanotechnologies and Finnish grid and cloud infrastructure, both included in national roadmap for research infrastructures, received €1.6 million in funding from the Academy of Finland.

Funding from the European Union and Academy of

Professor **Mika Sillanpää** received a five-year Consolidator Grant from the European Research Council to study micromechanical resonators in ultra-low temperatures.

Recognition for Petri Ala-Laurila and Eero Hyvönen

Assistant Professor Petri Ala-Laurila is one of the most promising young biophysicists in Finland. He studies visionrelated data processing in small nerve networks. Ala-Laurila received an Academy of Finland award. Professor Eero Hyvönen received a State Award for Public Information for his work on developing the semantic web.

Information technology succeeded in international rankings

Aalto University was the only Finnish university to make the U.S. News' TOP 100 list in the field of information technology.

School of Electrical Engineering

Graduates in 2014

Doctoral degrees

Master's degrees

Bachelor's degrees

The total number of graduates includes 8 Licentiate degrees.

516

Focus areas

- Information and communication technology ICT
- · Micro- and nanotechnology
- Energy and environment
- · Health and wellbeing

Strengths

- High-level research at the component, device and system levels in the fields of electrical and communications technology
- Combining basic research and technology in the focus areas
- Respected international research environment

Major infrastructures

 Micronova: Aalto Nanofab (part of the OtaNano infrastructure)

Develops innovative, enabling micro- and nanotechnologies and applies them in technology.

Metsähovi Radio Observatory
 Carries out research in radio technology, radio astronomy, and space technology.

Highlights of 2014

Antti Oulasvirta receives €1.5 million for research on user interface optimisation

Professor Antti Oulasvirta was awarded a European Research Council Starting Grant for five years. The goal of his research is to develop a new computational approach to user interface design and to use mathematical algorithms to improve interfaces. The results can be applied, for instance, to the optimisation of keyboards, menu systems and data networks.

Speech synthesis methods researcher Paavo Alku becomes an Academy Professor

Professor **Paavo Alku** was selected as an Academy Professor for a five-year term of 2015–2019. Alku develops new methods of statistical speech synthesis. The results will have extensive application in the ICT sector, particularly in developing more natural speech interfaces.

Hollywood recognised Ville Pulkki for sound technology

Professor Ville Pulkki received the Samuel L. Warner Memorial Medal for his work on behalf of motion picture sound technology. In his doctoral dissertation, Pulkki developed methods that make it possible to play movie soundtracks in different kinds of multichannel speaker systems. Two systems, which are currently being standardised, are based directly on Pulkki's work, while a third method, which has already been commercialised, is based on very similar technology.

Involved in Horizon 2020 projects

Many research projects began as part of the European Union's Horizon 2020 Framework Programme. For example, Professor Jörg Ott runs the Scalable and Secure Infrastructures for Cloud Operations project, the aim of which is to gain new user experiences of cloud services and their effective use. Aalto University continues to be a partner in the European Union's FET Flagship projects. In the Graphene FPA project, Professor Harri Lipsanen is responsible for research on graphene and similar materials in electronics and photonics. Professor Ville Kyrki is responsible for the Neurorobotics subproject in the Human Brain project.

School of Arts, Design and Architecture

Graduates in 2014

Doctoral degrees

Master's degrees

Bachelor's degrees

455

Focus areas

- Design in all scales of human environment and everyday life
- Meanings and expressions, storytelling
- Artistic research practice
- Culture of sharing; new ways of planning, producing and distributing
- · Digital society

Strengths

- · Open and open-minded culture
- Multidisciplinarity
- Internationalisation
- · Desire for change
- · Thinking differently and new ideas

Highlights of 2014

The school's first FiDiPro professor

The School of Arts, Design and Architecture received its first FiDiPro professor, which is funded by the Academy of Finland and Tekes. Professor **Peter McNeil** is involved in the *Costume Methodologies* research run by Professor **Sofia Pantouvaki**. This project combines research in all areas of costume design. Its goal is to build a methodological framework and provide tools for researching costumes.

Media Lab turned 20

Media Lab is a new media research and learning community. Those who graduate from its multidisciplinary degree programme with a master's degree in art work, for example, in design groups at top companies in the media, design and game industries. Students and alumni of the programme are also active in founding new companies. Media Lab research fields include new learning and teaching tools, information visualisation and interactive design.

Urban Academy inspires interest

The Urban Academy, launched last autumn by Aalto University and the University of Helsinki, is a new minor module that examines urban research and design and issues related to urban life. The need for such a module was immediately apparent as there were much more applicants than places available.

Short film about Finnish pavilion shown at Canadian art film festival

Le Pavilion de la Finlande à l'exposition universelle de 1900 à Paris film was selected to be a part of the official programme at the International Festival of Films on Art. Held in Montreal, Canada, the festival is the most important event in the field.

Fashion earns an international reputation

In September 2014, the Department of Design collections were presented at the $Paris\ Fashion\ Week$. They have also been featured in top international fashion publications, such as Vogue and Wallpaper. Designers who have graduated from the school work with well-known fashion houses and brands, including Lanvin and Calvin Klein Collection.

Research provides solutions to major societal challenges

Research at Aalto University is of a high academic standard. The university strives to influence growth in the well-being of society and conditions for business on a national and, to an increasing extent, global basis.

In just a short time, the tenure track career system for professors has changed the university's staff structure and renewed research activities. Since 2010, the university has appointed more than 200 new professors. At the same time, the age structure of professors has changed as a result of recruiting at the early phases of the career path and the 'change of generation' process.

External research funding important

The title of academician is Finland's most respected acknowledgement for scientific and artistic work. The title of academician of science was granted to the dean of the School of Science, Professor **Risto Nieminen**, in February 2014. Professor **Riitta Hari** is the other academician of science working at Aalto University.

University researchers have received a significant amount of Finnish and international research funding. Money granted by the Academy of Finland, European Research Council and European Union Framework Programmes is an increasingly important part of Aalto University's funding. In 2014, this highly competitive research funding totalled 47.6 (49.2) million euros, which is approximately 12% of total funding for the entire university.

The European Union emphasises impact and cooperation with companies in its research programmes. The Aalto University campus is the site of two innovation communities of the European Innovation and Technology Institute (EIT): EIT ICT Labs, which has operated since 2010, and EIT Raw Materials, which received its startup decision in 2014.

Higher quality research

Stronger research activities are most clearly illustrated by growth in academic publishing and the number of doctoral dissertations being completed.

The university has developed the quality of dissertation guidance and funding opportunities for doctoral students so that students are better able to concentrate on their dissertations on a full-time basis. This has increased the number of students graduating with a doctoral degree. In 2010, a total of 184 doctoral degrees were granted, in 2014 that number was 219. The focus of publications has shifted more towards higher quality publication forums. The international visibility of research results has simultaneously increased.

The international Scientific and Artistic Advisory Boards of the Aalto University schools met again in early 2014. They concluded that Aalto University's research had developed in a good direction over the two-year period. The groups also provided a valuable international perspective on continuous improvement of the activities.

Cross-disciplinary cooperation solves challenges associated with energy production and digitalisation

During the university's five years of operation, a national dialogue has been conducted concerning the division of tasks among universities and profiling their roles in certain areas of strength. This work has been particularly active in universities of technology, where the management hold regular annual strategy discussions. The results of these discussions are utilised when, for example, specifying the areas for new professorships and enhancing collaboration in research infrastructure development work.

Figures in parenthesis refer to 2013 unless otherwise mentioned.



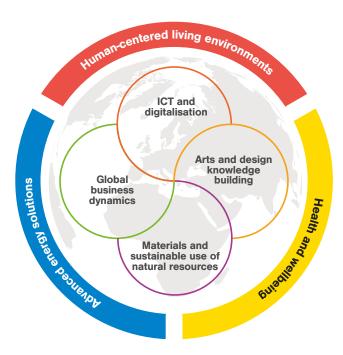
The discussions on cooperation and division of tasks have assisted Aalto University in specifying its own strategy and areas of strength. The work has also involved defining the societal challenges that require multidisciplinary research, and for which the university is best equipped to produce high-quality research information in close cooperation with the end users of that information.

The cornerstones of Aalto University research are four fundamental competence areas:

- 1. ICT and digitalisation
- 2. Materials and sustainable use of natural resources
- 3. Global business dynamics
- 4. Art and design knowledge building.

In addition to these areas, Aalto University invests in three integrative multidisciplinary themes that focus on solving challenges that are important globally and for the Finnish economy:

- 5. Advanced energy solutions
- 6. Health and wellbeing
- 7. Human-centred living environments.



Aalto University's four competence areas and the multidisciplinary themes that link them. As one of its cross-disciplinary spearhead projects, the university invests a total of 12 million euros over five years in an energy efficiency research programme. The programme has already produced important research results on, for example, local production of energy and on-line solutions to control its use.

ICT and the various applications of digitalisation are Aalto University's largest single research entity. Nearly 100 professors and their research groups work in the six schools. DigiPlatform networks professors and research groups and helps them find new research partners. Helsinki Institute for Information Technology (HIIT), which is jointly run by Aalto University and the University of Helsinki, focuses on computational modelling and data analysis, and ubiquitous ICT in the modern networked world as well as development of new digital science methods. A high level and sufficient critical mass (including four Academy of Finland Centres of Excellence) make the Helsinki region very attractive to ICT researchers and the companies that utilise such research.

Infrastructure investments support research work

For a university operating in the fields of technology and arts, research and teaching infrastructures are extremely important and require continuous investments. The annual operating expenses of Aalto University's 10 largest research infrastructures are more than 10 million euros. Renewing the research equipment base involves a lot of investments and external support has also been obtained for this work. For example, a total of 8 million euros was received from the Academy of Finland's FIRI programme and the supplementary government budget for upgrading the Aalto Ice Tank multipurpose basin and its equipment. Seven of Aalto University's research infrastructures are included in the national roadmap for research infrastructures.

Significant infrastructures

- · Aalto Ice Tank multipurpose basin
- Aalto NeuroImaging brain imaging environment
- · Bioeconomy infrastructure
- Low Temperature Laboratory (part of the OtaNano infrastructure)
- Nanomicroscopy Center (part of the OtaNano infrastructure)
- Metsähovi Radio Observatory
- Micronova: Aalto Nanofab (part of the OtaNano infrastructure)
- Science IT

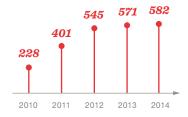
The significant infrastructures serve as projects and separate funding is earmarked for them. In addition to the abovementioned, the School of Arts, Design and Architecture's Media Centre Lume is within the scope of separate funding.

Competitive research funding (M€)



- Academy of Finland (31.4)
- Tekes FiDiPro funding (2.0)
- EU research funding programmes (14.2)

Number of postdoctoral researchers*



*Postdoctoral researchers are recent doctoral graduates who are gaining merits at Aalto University to advance their academic careers.

Excellence in research

	2010	2011	2012	2013	2014
Recipients of European Research Council funding	6	8	12	13	16
Academy of Finland Centres of Excellence	9	9	7	7	7
Academy of Finland Academy Professors	5	5	7	7	7
Academy of Finland Research Fellows	39	38	37	34	34
FiDiPro professors and researchers	15	16	15	14	13

Aalto University professors

	2010	2011	2012	2013	2014
Total number of professors	348	347	365	382	390
Number of new tenure track professors	0	31	94	<i>155</i>	206
Share of international professors in relation to total number of professors (of new professors)	9 % ()	10% (28)	12% (29)	14% (32)	16% (30)
Average age of professors (of new professors)	52.6 ()	53.0 (41.5)	52.4 (42.9)	51.6 (42.4)	51.0 (41.0)
Share of female professors (of new professors)	16 % ()	16% (17)	18% (20)	19% (23)	18% (24)

Artistic activities in new areas

Art, design and architecture combine to form one of Aalto University's four strategic areas along with research, teaching and impact, and serve to promote change in society.

The aim of Aalto University's artistic activities is to find human-centred solutions to socially important issues. It builds a bridge between technology and business, often based on experience.

Artistic activities are strongly multidisciplinary in nature. During its first five years, the university has created a framework where arts, science, technology and economics can meet and in which the importance of creative competence continues to become apparent in more and more new areas.

Aalto University produces well-educated experts with good potential for developing their fields and enriching cultural life generally. Students achieve success, both nationally and internationally, in their respective fields already while studying.

The university was one of the first ones in Europe to create a set of methods for evaluating the quality of artistic activities. The work to build these methods continues.

When evaluating the artistic activities at Aalto University, international experts have found that the activities have high impact and are outstanding at an international level. The impact is increasingly based on multidisciplinary approach and bold breaking of intellectual boundaries.

Multidisciplinary collaboration brings new ideas

ChemArts is a joint project by the School of Arts, Design and Architecture and the School of Chemical Technology and an excellent example of the opportunities presented by natural sciences, technology and creative competence. The project creates new concepts for the future bioeconomy by combining design, brand thinking and natural material sciences, with the focus on students developing new uses for biomaterials.

Results of Aalto University's artistic activities were presented to the European Parliament in autumn 2014.

There is a greater need for creative competence and new design methods. Operating in conjunction with the Department of Architecture, Sotera Institute researches the social and health sector: design and construction of buildings, working environment and instrument technology. Researchers from the institute are involved in, for example, spatial design of the new Central Finland Central Hospital, which is being implemented as multiprofessional collaboration. The goal is to develop a patient's treatment process and the facilities required for it in order to increase the productivity, efficiency and quality of the process.



Highlights of artistic activities

Taide on – Art is installation at ArtHelsinki

On display at the ArtHelsinki fair, the interactive *Art is* installation created by students at Aalto University invites to exchange ideas and opinions about art. The *Art is* project incites a diverse range of contrasting opinions about what art is. Art education student **Heikki Heinonen** is in the photo.





Major financing for *Images of Harmony and Rupture* documentary project

Kone Foundation supported Professor **Susanna Helke's** research group with a major sum of money. The aim of the project is to increase the understanding of social equality and inequality, and address the reasons for the success or failure of the Finnish welfare state. The project will generate a social analysis and a series of films.

A new life for books

Aaltoliike is an interdisciplinary innovative product design course that is open to all master's students. In 2014, the students' assignment was to design art pieces or objects out of upcycled library books. The implementation paid respect to the books' original function as builders of knowledge. A variety of methods, such as laser cutting and folding, were innovatively used in the works. The project concluded with an exhibition on the Otaniemi campus. The works were also on display at the Habitare Fair in September 2014. The photo shows a work by Susanna Junttila.





FINNLAND. COOL.

Finland was the designated Guest of Honour for 2014 at the world's largest book and media fair in Frankfurt. The Finnish pavilion was designed by Aalto University students, who took their inspiration for the pavilion design from the fair slogan: FINNLAND. COOL. Aalto University participated in the fair as a publisher, as well.



Renewed teaching anticipates evolving world

Aalto University has developed a learning-centred culture in which the aim is to give students the best possible skills to function in working life.

The working life of the future will be in a state of constant change and thus require renewal and updating of competence. The life-cycle of companies appears to be shortening and today's students can look forward to a varied career. In order to prepare for this, the university's degree programmes have undergone a major reform.

The School of Arts, Design and Architecture's new bachelor's and master's degree programmes were launched in autumn 2014. After the reform of bachelor's degree programmes, the schools of technology have focused on preparing their new master's degree programmes, which will begin in 2015–2016. The School of Business has carried out reforms of its bachelor's and master's degree programmes.

Development of teaching quality has continued actively, and feedback has been utilised in this work. During the year, two national feedback surveys by the Ministry of Education and Culture were conducted for graduating bachelors. For the first time, the surveys included questions compiled by the university. Aalto's own course feedback system now works well and it provides valuable information about developing teaching and programmes. Feedback has also been received from stakeholders, such as employers.

Shorter study times

Aalto University educates: engineering, business, and arts students studying for doctorates; architecture, landscape architecture, engineering, business, and arts students studying for master's degrees; and business, arts, and engineering students studying for bachelor's degrees.

A total of 219 (229) doctorates were completed in 2014. 1663 (1614) master's degree students and 1592 (1553) bachelor's degree students graduated during the year. The degree targets agreed with the Ministry of Education and Culture were exceeded with respect to doctorates and bachelor's degrees.

A total of 14 206 applicants sought admission to Aalto University in spring 2014, and approximately 16% were admitted. The joint application process in engineering and architecture celebrated its 40th anniversary in the autumn. Aalto University has been involved in the cooperation since the very beginning. The field of business is also part of the national joint application process.

Shorter study times have been encouraged in many ways and these measures have produced results. 25% of students completed more than 55 credits during the year, with the figure for first year students standing at 46%.

Pedagogical education continued to produce good results, with the activities supporting teachers as individuals and as part of the learning community. Support for student wellbeing and their learning were important themes. Progress in these areas was discussed with students in many ways during the year.

Entrepreneurship and MOOCs

The Aalto Ventures Program (AVP) provides entrepreneurship courses and coaching for students of all the schools. AVP aims to offer every bachelor's student a chance to learn more about entrepreneurship and entrepreneurial thinking. Students at Aalto University have shown great interest in entrepreneurship and the university supports this activity in many different ways.

Figures in parenthesis refer to 2013 unless otherwise mentioned.

Creative Sustainability linking fields

Students take a broad-based approach to the design and economy of a sustainable built environment. They gain expertise in the areas of sustainable product and service design, architecture, business and real estate economics. The programme encourages students to look for new roles in their own job descriptions. In 2014, the 16 graduates of the programme earned a master's degree in business or art, technology or architecture, depending on the field of their earlier studies. More than 100 students from 44 countries have started the programme. Graduates work in many fields, for example, as sustainable development experts in companies, as urban designers or as entrepreneurs. acs.aalto.fi



In 2014, the School of Science arranged a so-called MOOC (massive open online course) in programming. The online course was open to everyone and attracted over 3 000 participants, including more than 1 000 from outside the university. The course made it possible to provide students with diverse feedback on the programming assignments and it received excellent feedback.

Students involved in facility design

The right kind of facility solutions enhance learning. Aalto University has piloted future learning facilities by opening some 20 user-centred multipurpose facilities (so-called learning hubs) for studying, group work and relaxation. Students have been closely involved in designing the new facilities.

The last stages of renovation were completed at the new bachelor's centre at Otakaari 1. This will be the home for bachelor's teaching at Aalto University, and it will provide a vibrant meeting place for students from all fields. In 2014, the facility was mostly occupied by technology students. Starting in autumn 2015, the number of users of the building will rise by approximately 1 400 students, when bachelor's teaching in the field of business moves there from the Töölö campus. Bachelor's students on the Arabia campus are scheduled to move to the main Otaniemi campus in 2016. At present, some general art teaching is already provided in Otaniemi.

The renovation of Aalto University's Otaniemi campus library will begin in May and operations will be relocated to temporary facilities. After the renovation is completed, the library will be a modern learning centre in close proximity to the nearby Otakaari 1 bachelor's centre. Project planning for the renovation and new service concepting was done in 2014 by involving the staff, students and other users in a broadranging manner. The learning centre is scheduled to open to customers in 2016.





- Doctoral degrees (219)
- Licentiate degrees (18)
- Master's degrees (1663)
- Bachelor's degrees (1592)

Wellbeing through research and education

Top-quality research and teaching are at the core of Aalto University's mission. The university strengthens Finland's competence base and creates conditions for innovations, economic growth, employment and wellbeing, now and in the future.

Our identified strengths are active entrepreneurship-oriented students and the ability to find the solutions – sometimes very exceptional ones – needed for innovation activities. An estimated 70–100 new companies are established each year as a result of work done at the university. Aalto University's activities to support the creation of entrepreneurship and new companies gained international recognition in a report published by Massachusetts Institute of Technology (MIT). A comparison that assessed emerging entrepreneurial ecosystems ranked the Otaniemi area as one of a group of five 'rising stars'. The survey included approximately 200 international university environments.

Run by students and based at Aalto University, *Startup Sauna* organises some 100 different training and networking events each year. The Startup Life programme gives top students the opportunity to work at startup companies in California's Silicon Valley. *Slush*, the most important growth company event in Europe, brought more than 14 000 participants to Messukeskus in Helsinki. The organisations behind this event are the student-led *Aalto Entrepreneurship Society* and *Startup Sauna*.

Research and business related to health and wellbeing are fast growing areas. The results from Aalto University's brain research and neuroimaging and health technology development have already led to the creation of listed companies. The medical and biosciences and technologies at Aalto University and the University of Helsinki combine to form a competence entity of international significance that has the potential to become an important player in the growing markets of this sector.

Long history of corporate collaboration

Understanding the needs of companies related to research and education is of vital importance to Aalto University, and in 2014 university management met with a large group of corporate leaders from companies operating in Finland. During the many stakeholder events over the year, various forms of cooperation and current university results were discussed.

A traditional research project continues to be the most important way of collaborating by an overwhelming margin. In-depth and long-term corporate collaboration is also visible in Aalto University's publishing activities: 11% of researchers' international publications were produced in cooperation with industry. Aalto University placed 16th in the world in the Leiden ranking that compares joint publications produced by universities and companies. A significant number of student theses are performed in collaboration with industry and companies.

Cooperation with companies is also important financially: in 2014, companies invested 14.5 (21.6) million euros in coprojects, which in combination with Tekes funding accounts for 11.7% of the total university funding. For example, in 2014 negotiations were held concerning cooperation with ABB in the areas of research, teaching and recruiting. An agreement was signed in January 2015 and it will increase collaboration in, for example, finding new technologies.

Aalto University supplements its competence by creating long-term partnerships with other Finnish and international universities. The most important domestic partners in 2014 were the University of Helsinki, Tampere University of Technology and Lappeenranta University of Technology in the field of science and technology, Hanken School of Economics in the field of business and economics, and University of the

Figures in parenthesis refer to 2013 unless otherwise mentioned.



Arts and the Lahti, Satakunta and Vaasa universities of applied sciences in the field of art and design.

Aalto University's strategic partners include Tongji University in China in design and urban planning, and Stanford University in the United States in growth entrepreneurship education and promoting entrepreneurship. Aalto is building an active partnership with Yonsei University in South Korea. The university has particularly close cooperation with the Nordic Five Tech, Cumulus and CEMS networks, and Aalto also coordinates Finnish university partnership with the Indian Institutes of Technology consortium.

Researchers, students and alumni are changing the world

The university is an important part of society and interaction takes place on many levels and through many bodies: among people, in partnerships and collaboration projects, during visits, via the media, and at large and small events. In 2014, Aalto University was visible in domestic online media about 7 000 times and it had some 4 500 hits in international online media.

The highlight of the year's international visits was that of H.M. King Carl XVI Gustaf of Sweden's Royal Technology Mission in November. The government of Finland held a seminar at Aalto University in January, and also other events were attended by ministers. Prime Minister Alexander Stubb invited the prime ministers of eight countries to the Nordic Future Forum, the venue of which was Aalto University.

The Aalto Academic Summit held in November brought experts from the world of science and business to discuss the role of universities in creating economic growth and jobs. One of the speakers at this event was **Edmond H. Fischer**, winner of the Nobel Prize in Physiology or Medicine. The programme also included the awards ceremony for the World Cultural Council science awards.

Design Factory concept spreads around the world

International university collaboration continued actively. The concept of Aalto University's Design Factory, a research and learning environment for product development, has been operating successfully in the facilities of our partner Tongji University in Shanghai since 2010. Design Factory style activities have also been launched in Melbourne, Santiago and at CERN in Geneva. A Design Factory will open in South Korea in April 2015 and activities are planned in Latvia (Riga), Portugal (Porto), and the Netherlands (Leeuwarden).

Cooperation with companies is at the heart of the Design Factory concept. Students work in multidisciplinary teams to solve design challenges assigned by companies. In 2014, 14 companies participated in the Design Factory Product Development Project, including ABB, Philips, Kone, Nokia, Vaisala, Wärtsilä and HUS/Children's Hospital.

The 2014 Millennium Technology Prize was awarded to Professor Stuart Parkin in recognition of innovations that have enabled a thousand-fold increase in magnetic disk drive storage capacity. Aalto University is a strategic partner to Technology Academy Finland, which awards the prize, and took part in the process by proposing the members of the jury. In June, technology events, where Aalto University presented its activities, were held at the Millennium Pavilion built at the Kansalaistori Square in Helsinki. The events attracted thousands of visitors.

Education offered outside the university and Finland

Aalto University actively develops its continuing education and adult education models. A total of 8 100 (7 700) students took part in Open University courses in 2014.

The reorganised Aalto University Executive Education began operations in March. The company offers executive education services (Aalto EE), professional continuing education (Aalto PRO) and enterprise development services (Aalto ENT). The company's turnover in 2014 was approximately 17 million euros, and its activities provide significant income for the university community in a variety of forms, such as dividends, lecture fees and rents. In 2014, the company's financial footprint in the Aalto community was some 2 million euros.

This diverse entity combines practical expertise with the latest research information from Aalto University. In addition to Finland and Singapore, Aalto University Executive Education offers programmes in Poland, Sweden, South Korea, Taiwan, China, Indonesia, Iran, in the Baltic countries and Russia. In 2014, it ranked 48th in the Financial Times Executive Education Ranking, thus putting it in the top 1% of executive educators in the world. Aalto EE already has more than 9 000 alumni around the world.

Building the *future*



Hele Savin was appointed professor at Aalto University in 2012. Savin's research work with solar cells is widely recognised and she has received major European Research Council funding for her work. The group led by Savin mainly researches crystalline silicon solar cells that are already on the market. Her research group has obtained the highest efficiency ever reported for nanostructured solar cells. The result was achieved in cooperation with the Fraunhofer Institute for Solar Energy Systems research institute.



Miki Kuusi became a student at the School of Business in 2009, majoring in finance. In 2011, he was elected president of *Aalto Enterpreneurship Society*. Kuusi and his teams organised the *Slush* event in 2011–2014. This event has become the most important growth enterprise event in Northern Europe. In autumn 2014, he and six other entrepreneurs founded a company called Wolt, which provides applications for ordering and payment.



In June Canatu, a company that got its start from Aalto University research, received the SID Display Component of the Year Silver Award in the United States, and has succeeded in attracting financing from major investment sources. The flexible touch screen film developed by Canatu makes it possible to produce moulded and flexible touch screens. The product is based on a new nanomaterial developed by Professor Esko I. Kauppinen and his research group. According to Kauppinen, the new product would not exist without quality and high-level basic research.



Satu Maaranen is a freelance clothing designer, who does work for companies such as Marimekko and Petit Bateau. She graduated from Aalto University in 2012 with a master of art in textile and fashion design. In 2013, Maaranen's collection of women's clothing won the Grand Prix at the Festival de Hyères in France. Her work has been on display at the Berlin, Paris and New York fashion weeks and featured in a variety of fashion and design magazines ranging from Vogue to Monocle.



Founded by Professor Risto Ilmoniemi,
Nexstim Oyj commercialises brain diagnostic
and rehabilitation technology developed at
Aalto University and the BioMag laboratory in
Meilahti. This is also known as navigated brain
stimulation. Accurate mapping of important
brain areas enables safer tumour and epilepsy
operations, and the method has also showed
promise in the treatment of depression,
tinnitus and chronic pain. Last spring, the
company went public on the Nasdaq First
North exchange in Helsinki and Stockholm.
Nexstim has been selected as one of the most
promising startup companies in Europe.



Sonja Heikkilä earned a master's degree in technology from the School of Engineering in 2014. She majored in transportation and highway engineering. During her studies, she spent six months as an exchange student at the Vienna University of Technology. Her master's thesis *Mobility as a Service* brought Heikkilä world recognition, for example, the American magazine Foreign Policy named her one of the world's 100 most important thinkers. Heikkilä now works at Tekes as an advisor specialising in new business creation, and travels the world to talk about the transportation service that she developed.

Personnel, organisation and investment activities

Academic faculty more international

The tenure track career system for professors was implemented in 2010 and it plays a central role in realising the Aalto University strategy. The first appointments to tenure track were made in spring 2011 and since then more than 200 new professors have been appointed. All in all, nearly 400 professors work at Aalto University. Tenure track offers researchers a clear and well-supported career path towards professor-level tasks. The principle is to have both the university and the individual commit to an academic career.

The professorial positions are allocated to the university's strategic areas of strength, and a professor is appointed to one of the three tenure track levels on the basis of experience and qualifications. Advancement in the tenure track career system is based on criteria agreed in advance and evaluations. In 2014, 12 people advanced to the next phase of the tenure track.

Aalto University has become significantly more international as a result of the tenure track career system. Some 30 (27) % of academic faculty are non-Finns. For example, 65% of applicants for tenure track and 31% of those selected come from outside Finland. Integration of international staff and their families to Aalto and Finland and satisfaction at work are supported in many ways.

Governance and services

Aalto University's governance system was renewed in 2014. Vice President Ilkka Niemelä was appointed as the first provost of the university. He is responsible for academic management and chairs the Academic Affairs Committee. President Tuula Teeri is responsible for managing the university in an efficient and profitable manner, and she leads

the university's long-term planning, fundraising and external relations. The president makes proposals to the university board and chairs its management team.

The five-year terms of the university's first vice presidents ended in autumn 2014. Professor **Tuija Pulkkinen** (research and innovation), Professor **Eero Eloranta** (education) and Professor **Antti Ahlava** (campus development) were selected as new vice presidents. Professor **Hannu Seristö** continues as vice president responsible for external relations. **Anna Valtonen** took over as dean of the School of Arts, Design and Architecture on 1 March 2014 and **Keijo Nikoskinen** as fixed-term dean of the School of Electrical Engineering on 1 October 2014





- Faculty (professors and lecturers) (14%)
- Other teaching and research personnel (18%)
- Doctoral students (24%)
- Support personnel (32%)
- Students (research and teaching assistants) (12%)

Figures in parenthesis refer to 2013 unless otherwise mentioned.

In 2013, Aalto University began a Service Development Programme aimed at improving the cost efficiency and quality of services. The service organisation underwent major restructuring in 2014 in order to support university research and teaching in a better and more customer-oriented manner. This development work will continue in 2015.

As part of the programme, the university held cooperation negotiations with support service staff in 2014. These negotiations involved about 1 600 employees and were held during the period of 25 April–11 June 2014. As a result of the negotiations, the number of staff will decrease by 118 persons by the end of 2015.

Long-term investment activities

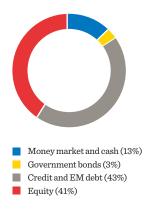
The purpose of Aalto University's investment activities is to provide additional funding for teaching and research. The additional funding generated by investment operations helps the university to remain financially independent and makes it easier to direct resources at strategic focus areas. The aim of investment activities is to maintain and accumulate the real value of capital in the long run as well as to provide a steady and predictable cash flow to fund university operations.

The majority of investment assets are perpetual capital, which was created as a result of the 2008–2011 fundraising campaign and government matching funds. A long-term real income target of 3% has been set for perpetual capital, which is intended to cover approximately 5% of the university's annual operating budget.

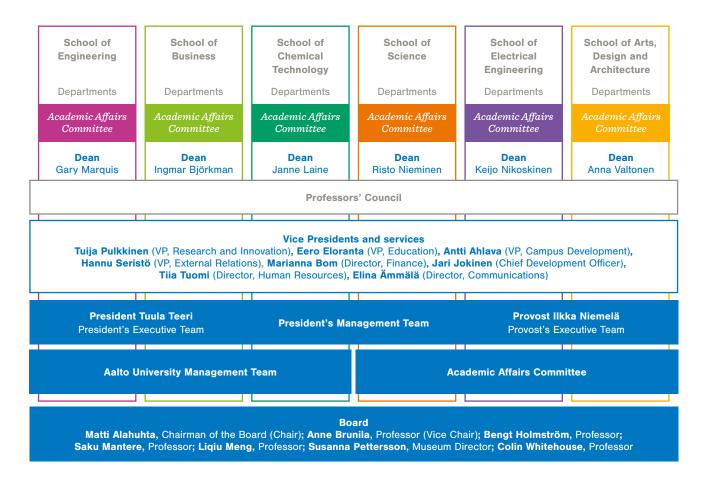
The university has a very long investment horizon and, as a result, the investment activities emphasise a long-term approach, broad diversification and prudent risk-taking. Aalto University has also committed to comply with the principles for responsible investment. Some 98% of investment portfolio is managed by external asset managers that promote the principles for responsible investment. The university is a member of *Finland's Sustainable Investment Forum* (FINSIF).

The market value of the university's investment portfolio as of the end of 2014 totalled 996 million euros, and it yielded an annual return of 6.3%. As of the end of the year, 41% of the portfolio was invested in equities and 59% in fixed income and money market investments. The average annual return on investment activities since the beginning of operations was 4.7%.

Portfolio asset allocation



Organisation



Campus

Aalto University's main campus is situated in the Otaniemi area of Espoo, Finland. Two smaller campuses are located in the Arabia and Töölö districts of Helsinki.

2014 marked the start of an integrating development process in Otaniemi. This means a new type of campus development in cooperation with other actors in the area. The goal is to enhance proximity and cooperation in learning, research, business, and among residents in the area and thus benefit economic and cultural development in Finland as a whole.

A process of improving the efficiency of facility use continued throughout the university. New activity-based office solutions were implemented in office and teaching and research spaces, which enable interaction and an increase in work efficiency. New types of facilities were tested in pilot projects. The renovation of Otakaari 1 into a centre for bachelor's degree studies continued. The third stage was completed according to plans in 2014. The fourth and final stage is estimated to be complete in spring 2015, making the centre ready to welcome bachelor's degree students from the School of Business in Töölö to Otaniemi in the autumn.

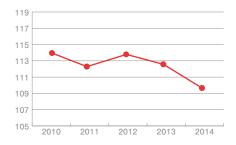
Design of the new building primarily intended for the School of Arts, Design and Architecture, to be built on the Otaniemi campus, is proceeding on schedule. Due to a delay in the modification of the zoning scheme, construction did not yet begin in 2014. The first stage of the building is estimated to be complete by the end of 2017.

A project plan was drafted for the renovation of the library, and the university board made an investment decision on the renovation in December 2014. After its renovation, the library will become a modern learning centre.

The Dipoli building in Otaniemi changed owners from the student union to Aalto University in March 2014. The project planning for its renovation began in summer 2014, and its work will begin in summer 2015. The new Dipoli is intended to be the main building of the entire Aalto University, with flexible spaces for many types of use.

In total, the university has a total space of 302 000 m² (315 000 m²), of which the Otaniemi campus accounted for 225 000 m², the Töölö campus for 28 500 m², the Arabia campus for 42 000 m², and other sites for 6 500 m². Facility costs for the university totalled 68 (71) million euros during the year.

Per capita electricity consumption, Aalto University Properties Ltd (kWh/brm²)*



*90% of Aalto University Properties Ltd facilities are leased to Aalto University, and this is equivalent to around 75% of all facilities used by Aalto University.

Figures in parenthesis refer to 2013 unless otherwise mentioned.



Responsibility and sustainable development

Aalto University strives for responsibility in all its activities. The university is part of the International Sustainable Campus Network (ISCN) and it has signed the universities' Rio+20 declaration. Central responsibility information will be published this year as part of the annual report. The information has been divided into three parts in accordance with the ISCN reporting model.

Environmental impacts of campuses

The main environmental impacts of the campuses are related to energy and water consumption, transport and waste. Aalto University Properties Ltd has committed to a national energy efficiency agreement of property sector and strives to reduce its energy consumption by 6% by 2016. Measures to improve energy efficiency on campus included LED lighting investments at the Maarintalo building in Otaniemi. Aalto University Properties buildings mainly utilise green electricity. Half of the procured electricity was produced by means of wind power and half by bioenergy.

Several evaluations and repairs were made to improve indoor air during the year. The largest measures were implemented on the Arabia campus.

The efficiency of waste processing was improved in 2014 and 90% of the waste created in facilities was recovered. A recycling map was published for the Otaniemi and Töölö campuses. A safety advisor was appointed to improve the procurement and handling of hazardous substances, and users of such substances received training.

Campus planning and indirect impacts

The development of Aalto University's infrastructure complies with the principles of sustainable development. In 2014, biodiversity was strengthened by opening a garden of decaying wood in Otaniemi. Implementation was based on a student competition in cooperation with the University of Helsinki, Finnish Association of Nature Conservation and Aalto University's Department of Landscape Architecture.

The conditions for sustainable transport were improved by launching the Otaniemi smart mobility programme.

University procurements were carried out according to the Act on Public Contracts and with consideration to environmental aspects.

Sustainable development in research, teaching and impact

All of the schools at Aalto University research and teach topics that are related to the theme of sustainable development and responsibility. The university has supported cross-disciplinary projects that address global challenges, such as ecology, a sustainable future and service development.

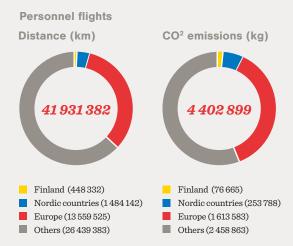
A new operating environment called Energy Garage was opened in Otaniemi in 2014 as a meeting place for students, researchers and stakeholders with an interest in the energy field.

Sustainable development themes were the topic of some 340 research articles or conference papers (11% of all publications). The university is home to numerous research groups with a research theme related to sustainable development. For example, the CESR research group operating in the School of Business organised an international corporate responsibility conference in 2014. Aalto University provides strong support for energy efficiency research in the Energy Efficiency Research Programme.

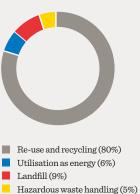
In the Aalto Global Impact project, university researchers and students cooperate with a large group of partners to solve global development problems. The university coordinates the Rio+20 Implementation in the Nordic Higher Education Institutions project, which is funded by the Nordic Council of Ministers, and strengthens the implementation and steering of sustainable development in Nordic universities.

Sustainable development organisation and resources

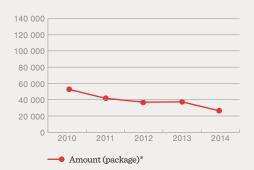
Aalto University's Academic Roundtable for Sustainability and Sustainable Campus Board internal working groups provide the university management with recommendations on setting and monitoring sustainable development targets. The work input of one employee has been resourced for the coordination of sustainable development activities.





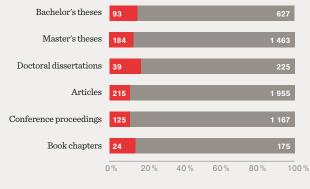


Copy paper consumption



 $^{^* \,} A \, single \, package \, contains \, 500 \, sheets \,$

Publications related to sustainable development, number and share of all publications*



Sustainable development research (no.)All research (no.)

* Aalto University Library has collected the publications figures related to sustainable development on the basis of a search word list.

Electricity, heat and water consumption in facilities

Electr	icity consumption (Mwh)	Heat consumption (Mwh)	Water consumption (m³)
Otaniemi	31 736	42 359	120 556
Töölö	2836	4 995	14 033
Arabia	2 350	6 296	27 598
Other offices	576	488	350
Total	37497	54 138	162 537

Further information about activities, more detailed figures and the sustainable development search word list are available at: aalto.fi/sustainability.

Annual Board Report 2014

(Based on audited Finnish version)

The role of Aalto University

The purpose of the Aalto University Foundation, operating as Aalto University, is to promote free research and scientific and artistic erudition, provide higher education based on research, and educate students to serve their country and humanity. The university is an autonomous, multidisciplinary science and art community which operates in the fields of technology, economics, art and design, and in fields closely related to them. The university works in interaction with the rest of the society and the international scientific and artistic communities, and advances the impact of research and artistic activities on

The national mission of the university is to support Finland's success through high-quality research and education, to make a positive contribution to building of Finnish society, its economy, technology, art and design, internationalisation and competitiveness, and to promote the welfare of humankind and the environment. The university respects the freedom of science, art, and education.

Activities during 2014

Year 2014 was Aalto University's fifth year of operations. The university continued implementation of its strategy. The main priorities during the year were completion of master's degree programmes' plans, that will start during autumn 2015, and continued recruitments under the tenure track academic career system. By the end of the year, a total of 246 (231) new tenure track positions had been opened, 206 (155) of which had been filled. 31% (31%) of the positions were filled by international recruits and 26% (24%) of recruits were women. During the year the number of professors recruited under the tenure track career system exceeded the number of professors recruited before 2010.

In fall 2014, Aalto University's funding for the national mission for year 2015 was cut by further €12 million, which will reduce the funding for the national mission to €58 million instead of the original commitment of $\ensuremath{\mathfrak{C}}100$ million. Despite public funding development is still expected to be challenging Aalto University continues to implement its strategy and especially its tenure track career system during year 2015.

The Service Development Programme that began in 2013 with the aim of cost savings and improved service quality achieved its targets for 2014. The programme continues during 2015.

Research

A total of 2970 (2888) refereed articles were published at the university, showing a 3% increase over the previous year. The number of articles and their impact is expected to develop positively as the university continues to implement its strategy. Highly competitive research funding decreased by 3%, mainly due to exceptionally many Academy of Finland projects ending

during the year. The majority of highly competitive research funding was received from Academy of Finland €31 million (€34 million) and European Union €14 million (€13 million). Highly competitive research funding includes Academy of Finland funding, Tekes FiDiPro funding and EU research funding programmes.

Aalto University participated in seven (7) national Centres of Excellence during 2014 and two (1) Academicians of Science worked at the university. The 16 (13) recipients of European Research Council (ERC) grants, 7 (7) Academy Professors.

34 (34) Academy Research Fellows, and 13 (14) Finland Distinguished Professor Program (FiDiPro) Professors and Fellows also reflect the university's high quality research.

Teaching

The number of bachelor's and master's degrees developed positively during 2014. A total of 1592 (1553) students completed a bachelor's degree, 1663 (1614) completed a master's degree, and 219 (229) a doctorate. The number of full-time equivalent degree students decreased slightly to 10 985 (11 337). The total number of degree students was 18 943 (19 683). Degree students earned a total of 461 753 (476 335) ECTS study credits, equivalent to an average of 35 (35) study credits per every active degree student. Approximately 3 100 (3 000) foreign students studied at the university, and 77% (76%) of them were studying a full degree.

Aalto University's degree programme reform continued with master's degree programmes, and most of the reformed programmes will start during 2015. Preparation work continued in order to centralise bachelor's degree teaching to the Otaniemi campus. Preparation included e.g. close cooperation between different user groups to finalise planning and renovation of learning facilities in the Otakaari 1 building. The university's first MOOC (massive open online course) was carried out in the School of Science, and it received excellent feedback. Two national enquiries were made among bachelor's degree graduates, which provided valuable input for the further development of learning programmes.

Artistic Activities

The university's artistic activities aim for international visibility and combining art with the university's other fields. During 2014 the university received 35 (31) international awards, covering all fields of artistic activities in the university. The School of Arts, Design and Architecture's and the School of Chemical Technology's joint ChemArts project is an excellent example of the potential that exists in science, technology and creativity. The project creates new concepts for the future bioeconomy by combining design, branding, and material sciences. Students are at the centre of the project as they invent new uses for biomaterials.

The results of the artistic activities were presented to European Parliament in connection with its innovation conference last autumn. Wearable Technology Design exhibits represent diversified design, where technology, design and art integrate into novel design concepts and prototypes.

There is an ever increasing demand for creativity and new design practises. Sotera Institute, operating under the Department of Architecture, studies and develops social and health related constructions, work environment functionality, and related technology, telecommunications technology, information technology and aid technology.

Societal Impact

Reflecting Aalto University's impact on and contribution to society, the university received funding from non-academic partners totalling €73 million (€93 million). The decrease was mainly due to the transfer of commercial continuous learning activities to Aalto University Executive Education, and cuts in Tekes funding to University sector.

Aalto University offers a selection of innovation, commercialisation, and start-up services to the university's researchers, students, and other stakeholders. The university processed 145 (150) innovation proposals, filed 30 (53) patent applications, and supported the formation of 6 (6) new companies started by researchers and students. A joint AppCampus project in collaboration with Nokia and Microsoft approved 187 (157) funding grants. In addition, approximately 8 100 (7700) students attended courses arranged by Open Univer-

Aalto University extended the activities of Aalto University Executive Education Oy (Aalto EE) to include the commercial continuous learning activities of both Aalto University Professional Development (Aalto PRO) and the School of Business' Small Business Center (Pienyrityskeskus). The company kept the existing name of Aalto University Executive Education Oy. The merger clarified the position of Aalto University Foundation, with non-profit activities remaining in the university and continuous learning related business activities in a separate company. In addition, the merger enables Aalto EE to offer customers a wider range of solutions to meet the needs of professionals and executives. The merger was effective as of 1 March 2014.

Aalto University's societal impact is expected to expand through its numerous national and international projects, and the university continues to actively seek long term strategic partnerships with key stakeholders.

Governance

The main governing bodies of the university are the board, the president, the provost, the Academic Affairs Committee, and the deans of the schools.

The board consists of seven external members, including the chair and vice chair. The board is responsible for decisions concerning the university's strategy, annual operating plan and budget, and for approving the financial statements and university's regulations. The board also appoints the president, the vice presidents, and staff reporting directly to the president. The board ensures that the university's operations

are organised appropriately and that the university's assets are invested in a safe and productive way. The board had five meetings during the year and additional email-based meetings.

The composition of the board changed in 2014. The Academic Affairs Committee appointed Director Ph.D. Susanna Pettersson as a member of the Aalto University Board as of 1 March 2014. Susanna Pettersson replaced Professor Anna Valtonen in the board.

The president is responsible for leading the university's operations in accordance with the duties set out in the Finnish Universities Act and orders and instructions provided by the board. The president is responsible for managing the university in a financially efficient manner.

The Academic Affairs Committee is a common organ as defined by the Finnish Universities Act and it is responsible for matters such as curricula, degree requirements, the principles used for admitting students, and for establishing the bodies necessary to govern the university's research and teaching. In addition, it appoints the Nomination Committee and the members of the board based on proposals made by the Nomination Committee.

The Nomination Committee consists of five members, two of which represent the university's private founders.

The board appointed Deputy President Ilkka Niemelä as the university's first provost as of 1 May 2014. The provost oversees all processes connected to education, research, innovation, and societal impact. The provost also serves as the line manager to the vice presidents.

The university is organised into six schools and joint service units. The schools are led by deans and each school consists of departments, led by department heads. The schools are responsible for teaching and research in their respective disciplines and are academically independent within the framework established by the university's strategy, guidelines, and annual operating plan and budget. The university's joint service units are organised in a matrix in which joint service processes are defined centrally for the whole university, while services are produced locally in academic units.

Anna Valtonen was appointed as the dean of the School of Arts, Design and Architecture as of 1 March 2014. Keijo Nikoskinen was appointed as the dean of the School of Electrical Engineering as of 1 October, and he will hold the post until 31 July 2015.

The university and its subsidiaries form the Aalto University Group. The university's subsidiaries are Aalto University Properties Oy (66.7% holding), Aalto Holding Oy (100% holding), and the property company, Kiinteistöosakeyhtiö Helsingin Pohjoinen Hesperiankatu 23A (50% holding). The board and the president are responsible for the governance of the Aalto University Group. The president appoints the university's representatives to the annual meetings of subsidiaries, in which the board members of these companies are elected. The boards of subsidiaries elect their CEOs, who are responsible for the operations of these companies.

Personnel

During 2014 the average faculty and staff decreased from previous year, and totalled 4739 (5171). A total of 57% (53%) of the faculty and staff were employed in teaching and research positions, 11% (14%) were degree students working as research and teaching assistants and 32% (33%) were employed in other positions. In addition, 25% (24%) of personnel were doctoral students.

A total of 40% (39%) of personnel held a permanent employment contract and 82% (81%) worked full-time. Women accounted for 38% (39%) of personnel. A total of 16% (15%) of personnel will reach the age of 65 within the next 10 years. The share of non-Finnish personnel increased to 20% (19%) which indicates the strong international focus of the university.

At the end of 2014, the university had 390 (382) professors, of whom 162 (159) had fixed-term contracts. In total, 18% (19%) of professors were women. Approximately 42% (43%) of professors will reach the age of 65 within the next 10 years.

In connection with the Service Development Programme, that begun in 2013, the university completed statutory employer-employee negotiations in June 2014. The negotiations resulted in a personnel reduction of 118, out of which 77 will be covered by retirement arrangements and fixed-term contracts and 41 by redundancies. The implementation will be carried out during the years 2014–2015.

Campus and infrastructure

In June 2011, Aalto University Board decided to locate the university's main campus in the Otaniemi district of Espoo. All bachelor's degree programmes will gradually move to the Otaniemi campus and during 2015 almost all bachelor's degree programmes will be centralised to the renovated Otakaari 1 building. During 2014, the university's investment programme progressed to zoning and outlining the School of Arts, Design and Architecture's new building (Väre). The campus development programme also included project planning for the new learning centre and the renovation of Dipoli.

The university aims at more efficient use of its facilities in order to release more resources for teaching and research. In 2014, the university decreased its facility usage by 4%. The university had three campuses and other facilities totalling 302 000 m² (315 000 m²), of which the Otaniemi campus accounted for 225 000 m² (233 000 m²), the Töölö campus for 28 500 m² (29 000 m²), the Arabia campus for 42 000 m² (43 000 m²), and other sites for 6 500 m² (11 000 m²). University facility costs totalled €68 million (€71 million).

Figures in parenthesis refer to 2013 unless otherwise mentioned.

Endowment

Aalto University has a long-term endowment strategy designed to enhance the university's financial independence and support the implementation of its strategy. The main goals of the endowment management are to preserve and accumulate the real value of the endowment capital in the long term and to provide a stable and predictable income to fund the university operations. Preserving the real value of the endowment capital secures equality between generations by ensuring that the purchasing power of the endowment capital and the funding generated for the university can be maintained over time. The market value of the endowment portfolio was $\ensuremath{\in} 996$ million ($\ensuremath{\in} 936$ million) at year-end and its annual return was 6.3% (3.3%). At year-end 41% (33%) of the portfolio was held in equities and 59% (67%) in fixed-income and money market investments.

Aalto University is committed to the principles of responsible investing. Approximately 98% of endowment portfolio is managed by external asset managers that adhere to the principles of responsible investing. Aalto University is a member of the *Finland's Sustainable Investment Forum* (FINSIF).

Sustainable development

Aalto University strives for responsibility in all its operations. Aalto University is a member of the *International Sustainable Campus Network* (ISCN). Sustainable campus activities aim at e.g. an energy self-sufficient Otaniemi by 2030, improving the conditions for sustainable transportation, and strengthening biodiversity. Aalto University implements its Rio20+ commitment by leading the Nordic universities' sustainable development network (NSCN). The national *Gulf of Finland Year* was celebrated by running the Aalto-kymppi 10 km race on behalf of the Baltic Sea and clean water.

Operating environment and risks

The main risk in the university's operating environment concerns securing the university's funding in the long run. Public sector cuts create uncertainty as they may negatively affect funding in the university sector. Additionally uncertainty in financial markets may have a negative impact on university's investment returns and thus have a detrimental effect on the university's funding.

Financial pressure affecting the public sector has a major impact on the environment in which Finland's universities operate. This pressure has had a concrete impact on funding for 2013–2015. During 2013, the index-based increase in university funding was frozen, which resulted in a real-term funding cut for universities. For 2014, Aalto University's funding for the national mission was cut from €80 million to €70 million euros and in 2015 the funding for the national mission will decrease to €58 million, with the original commitment being €100 million euros.

In the line with the public sector challenges also public funding for research and innovation activities is also expected to decrease, which in turn is expected to impact on the major research funding agencies of Aalto University: Tekes and the Academy of Finland. Pressure to decrease public sector funding constitutes the university's most significant strategic risk and its probability is still considered elevated.

Development of the university's investment portfolio can contain financial risks associated with the uncertainty of the financial markets, which may have a negative impact on the university's long-term funding.

The targets set for the new campus call for a solid investment plan covering the next 15 years and a reduction of some 25% in current spatial usage. Uncertainty in the financial markets may make it more difficult to fund the investment programme, delay its implementation and thus have a negative impact on the university's ability to carry out its teaching and research strategy. As the majority of the buildings in Otaniemi are of historical significance and protected by the National Board of Antiquities, it may prove impossible to achieve spatial efficiency targets in some areas, subsequently increasing the university's costs.

The principle underlying the university's property insurance cover is to insure key assets with a relatively high level of own risk and secure all assets that are essential and material for the university's operations. Aalto University also has liability insurance cover with respect to possible damage caused by its operations to third parties, as well as management liability insurance cover for financial damage that might result from the actions of the university's management and the members of the board and the boards of its subsidiaries.

Financial position

The university's pro forma operative income totalled €389 million, down 7% from the €418 million in 2013. The main sources of income were government funding, which totalled €266 million (€275 million), and research grants from Tekes €31 million (€38 million), Academy of Finland €31 million (€34 million), and European Union €21 million (€20 million).

The university's pro forma operative expenses were €400 million, down 5% from the €420 million in 2013. The majority of operative expenses comprised personnel and facility expenses, of which the former accounted for 64% (63%) and the latter for 17% (17%). Personnel costs fell by 3.6% due to decreased personnel, while facility costs decreased by 3.6%, mainly due to spatial efficiencies.

The university's pro forma operative deficit was €11 million (deficit of €2 million).

Income from investment and financing activities was €44 million (€42 million), primarily from profits on the sale of investments as a result of portfolio allocation changes and exchange between investment funds. Impairments related to investment and financing activities totalled €3 million (€11 million). Investment and financing activities recorded a

total surplus of €39 million (€31 million). In accordance with Finnish Accounting Standards, unrealised gains are not shown as profit in the income statement.

The net surplus for the year was €33 million (€33 million), corresponding to 8% of operative income (8%).

The university's balance sheet totalled €1 075 million at the beginning of the year and €1 101 million at the end of the year.

The book value of Investments increased by €72 million from €934 million in 2013 to €1 005 million. During the year part of investments were sold for a price higher than the book value, which generated profits on sale of investments. These profits were re-invested back to Investments, which led into increased book value. Additionally a bigger share of Cash and bank was invested through funds, and thus needed to be included in Investments.

All investments are valued at purchase value or market value, if the latter is lower. Cash and bank decreased to €11 million (€50 million). Short-term receivables decreased by €2 million to €53 million, driven by the decrease in received

Short-term liabilities primarily consisted of advance payments and accrued payroll expenses and totalled €71 million (€76 million). The decrease was mainly due to a drop in research funding coordinated by Aalto University and decreased holiday pay accrual.

Cash flow from operations decreased to -€5 million (€10 million) mainly due to decreased government funding and decreased interest-free debts. Cash flow from investments totalled -€41 million (-€45 million), of which -€33 million (-€39 million) was associated with investment activities and -€8 million (-€5 million) with investments in research and teaching infrastructure and IT infrastructure. Cash flow from financing was €5 million (€4 million) as additional capital was received to the special purpose fund with separate assets. The university's total cash flow was -€41 million (-€30 million).

Aalto University Group

Aalto University Group's total income was €451 million (€477 million), total expenses were €415 million (€438 million), and it recorded a surplus of €36 million (€39 million).

The group's balance sheet totalled €1 405 million (€1 376 million) at year-end. The increase in the balance sheet was mainly due to changes in the university's investment portfolio. The group's equity ratio was 80% (79%). Cash flow from the operations of the Aalto University Group totalled €26 million (€42 million) and cash flow from investments was -€80 million (-€70 million). Cash flow from financing was -€1 million (€38 million). Total cash flow for the year was -€54 million (-€10 million).

The largest subsidiary, Aalto University Properties, owns and manages the majority of the facilities used by the university. The turnover of the sub-group was €49 million (€48 million) and it recorded a profit of €11 million (€13 million). The balance sheet totalled €382 million (€381 million). Aalto University Properties acquired Dipoli Congress Centre (Kiinteistö Oy Jämeränjälki) during March 2014.

Aalto Executive Education, owned by Aalto Holding, recorded a turnover of €17 million (€13 million) and a net profit of €0.2 million (€0.8 million).

All Aalto University Group companies have prepared their own financial statements for the financial year.

Auditors

For the fiscal year Leif-Erik Forsberg (APA, CPFA) and Jorma Nurkkala (APA, CPFA) of KPMG Oy Ab acted as the university's auditors.

Major events after the financial year

Senate Properties will sell its 33% minority share in Aalto University Properties, Aalto University Group's largest subsidiary. Aalto University will make a bid for these shares during the spring. The acquisition is not expected to have a material impact on Aalto University Group's short-term liquidity or solidity. If the acquisition materialises it is expected to have a positive impact on group's long-term solidity.

No other events of a material nature affecting the financial status of the Aalto University Group and its financial statements for 2014 took place between the end of the financial year and the preparation of the financial statements.

Financial Statements 2014

(based on audited Finnish version)

Aalto University Foundation Pro Forma Income Statement, 1M€

(not audited)

OPERATIVE INCOME	2014	%	2013	%	2012	%	2011	%	2010	%
Government funding	266	69%	275	66%	271	64%	272	64%	245	61%
Tekes	31	8%	38	9%	41	10%	43	10%	42	11%
Academy of Finland	31	8%	34	8%	32	8%	29	7%	27	7%
European Union	21	5%	20	5%	20	5%	17	4%	12	3%
Corporate	14	4%	22	5%	26	6%	29	7%	31	8%
Other	23	6%	29	7%	30	7%	29	7%	38	10%
Change in special purpose funds	1	0%	2	0%	0	0%	3	1%	4	1%
TOTAL	389	100%	418	100%	421	100%	423	100%	400	100%
OPERATIVE EXPENSES										
Academic personnel	174	44 %	179	43 %	181	43 %	168	42 %	161	43%
Service personnel	82	21%	87	21%	86	20 %	80	20 %	75	20%
Facilities	68	17 %	71	17 %	66	16 %	62	16 %	59	16%
Service purchases	28	7 %	35	8 %	36	9 %	33	8 %	33	9%
Depreciations	7	2 %	7	2 %	7	2 %	6	2 %	6	2%
Other	40	10 %	42	10 %	48	11 %	46	12 %	39	10%
TOTAL	400	100 %	420	100 %	424	100 %	395	100 %	374	100%
OPERATIVE SURPLUS	-11		-2		-4		28		26	
Surplus / deficit from investment operations	39		31		29		-14		2	
Surplus / deficit from fundraising	5		5		4		0		0	
NET SURPLUS	33		33		29		14		28	

FOUNDATION INCOME STATEMENT, 1 000 €

ORDINARY OPERATIONS	Note	1.131.12.2014	1.131.12.2013
Income Income from grants	2	98 628	109 368
Income from business activities	6	12 171	20 864
Other income	U	10 097	12 003
Other meome		120 897	142 235
		120 697	142 233
Expenses			
Personnel expenses	4	256 582	266 052
Depreciation and amortization	7	7 269	7 460
Other expenses	5	136 031	146 889
		399 883	420 401
SURPLUS/DEFICIT FROM ORDINARY OPERATIONS		-278 986	-278 166
FUNDRAISING			
Income			
Donations		265	269
Other income		4 560	4 369
Fundraising total		4 825	4 638
SURPLUS/DEFICIT AFTER FUNDRAISING		-274 161	-273 528
INVESTMENT AND FINANCING ACTIVITIES			
Income			
Dividend income		4 961	4 731
Interest income		40	291
Profit on sale of investments		32 203	31 232
Reversal of investment impairment		4 167	2 944
Other income		2 672	2 527
outer meetic		44 044	41 726
Expenses			
Loss on sale of investments		1321	23
Investment impairment		3 481	11 056
Other expenses		283	142
Other expenses		5 085	11 222
Investment and Financing activities total		38 959	30 504
modulish and i maionig activities total			
GENERAL GRANTS			
Universities Act based government grant		266 403	274 502
SURPLUS BEFORE CHANGE IN SPECIAL PURPOSE FUNDS	AND TAX	31 201	31 478
CHANGE IN SPECIAL PURPOSE FUNDS			
Change in special purpose funds		2	2 149
Change in special purpose funds w separate assets		1492	-565
TAX	8	32	212
SURPLUS OF THE FINANCIAL YEAR		32 663	32 850

FOUNDATION BALANCE SHEET, 1 000 €

ASSETS	Note	31.12.2014	31.12.2013
FIXED ASSETS			
Intangible assets	9		
Intangible assets		647	104
Other long-term expenditure		14	36
Advance payments		606	14
		1 268	154
Tangible assets	10	004	004
Land and water areas Buildings and constructions		324 27	324 39
Machinery and equipment		21 077	22 249
Other tangible assets		35	35
Advance payments and work in progress		2 391	1129
		23 853	23 776
Investments	13		
Shares in Aalto group companies		102 305	102 305
Shares in associated companies Shares in jointly owned companies		2 737 3 215	2 573 3 215
Other shareholdings	12,14	897 109	825 706
Other shareholdings	12, 11	1 005 366	933 800
TOTAL FIXED ASSETS		1 030 488	957 730
CURRENT ASSETS			
Inventories			
Inventories		355	336
		355	336
Receivables			
Long-term receivables	4.0	0.070	F 000
VAT compensation	16	2 258 2 000	5 883 2 000
Other receivables, associated companies		4 258	7 883
Short-term receivables		4 230	7 003
Accounts receivable		33 685	40 162
Accounts receivable, group companies		375	316
Accounts receivable, other associated companies		84	0
Other receivables		750	396
Prepaid expenses and accrued income	15	18 579 53 473	14 930 55 803
Cash and bank Special purpose funds with separate assets, cash and bank		10 725 1 704	49 846 3 277
TOTAL CURRENT ASSETS		70 515	117 145
TOTAL ASSETS		1 101 003	1 074 875
		1 101 003	1074073
EQUITY AND LIABILITIES			
EQUITY Endowment capital	17	280 000	280 000
Operating equity		154 644	280 000 154 644
Capital reserve		412 477	412 477
Special purpose funds		34 877	34 879
Special purpose funds with separate assets		1633	3 125
Other equity			
Surplus from previous years		114 059	80 539
Surplus of the financial year TOTAL EQUITY		32 663 1 030 353	32 850 998 514
		1 000 000	300 014
LIABILITIES Chart Agent Habilities			
Short-term liabilities Advance payments		30 867	29 578
Accounts payable		5 670	29 578 6 917
Liabilities to group companies		7	7
Liabilities to other associated companies		20	5
Other liabilities		12 000	15 440
Accrued expenses	18	22 016	24 261
Special purpose funds with separate assets accrued expenses	18	71	152
Total short-term liabilities TOTAL LIABILITIES		70 650 70 650	76 361 76 361

FOUNDATION CASH FLOW STATEMENT, 1 000 €

CASH FLOW FROM OPERATIONS	1.131.12.2014	1.131.12.2013
Surplus/Deficit from ordinary operations	-273 014	-274 362
Depreciation included in the above	7269	7 460
Change in net working capital	1 200	, 100
Change in inventories	-19	-24
Change in interest-free receivables	5 955	9 979
Change in interest-free debts	-5 469	-3 562
Total cash flow from ordinary operations	-265 278	-260 510
Cash flow from fundraising	345	269
Received general grants	266 403	274 502
Paid direct taxes	-193	-348
Special purpose funds with separate assets	-5 972	-3 804
TOTAL CASH FLOW FROM OPERATIONS (A)	-4 694	10 109
CASH FLOW FROM INVESTMENTS		
Investments in tangible and intangible assets	-8 981	-6174
Received investment grants	510	758
Proceeds from sales of tangible and intangible assets	11	8
Investments in financial assets	-360 057	-302 693
Proceeds from sales of financial assets	322 731	258 393
Other net proceeds from investments activities	4 718	4 880
TOTAL CASH FLOW FROM INVESTMENTS (B)	-41 069	-44 828
CASH FLOW FROM FINANCING		
Increase in equity	670	0
Special purpose funds with separate assets	4 480	4 369
TOTAL CASH FLOW FROM FINANCING (C)	5 150	4 369
CHANGE IN CASH AND BANK (A+B+C)	-40 613	-30 350
Cash and bank beginning of year	49 846	80 863
Cash and bank end of year	10 725	49 846
Cash and bank, Special purpose funds with separate assets beginning of year	3 125	2 610
Cash and bank, Special purpose funds with separate assets end of year	1633	3 277
CHANGE IN CASH AND BANK	-40 613	-30 350

GROUP INCOME STATEMENT, 1 000 €

98 858 32 026 10 411 141 295 265 153 21 609 114 866 401 628	38 151 12 376 159 935 271 992 19 460 124 617
32 026 10 411 141 295 265 153 21 609 114 866 401 628	12 376 159 935 271 992 19 460 124 617
32 026 10 411 141 295 265 153 21 609 114 866 401 628	38 151 12 376 159 935 271 992 19 460 124 617
10 411 141 295 265 153 21 609 114 866 401 628	12 376 159 935 271 992 19 460 124 617
141 295 265 153 21 609 114 866 401 628	159 935 271 992 19 460 124 617
265 153 21 609 114 866 401 628	271 992 19 460 124 617
21 609 114 866 401 628	271 992 19 460 124 617
21 609 114 866 401 628	19 460 124 617
114 866 401 628	124 617
401 628	
	416 069
pany 32	9
-260 300	-256 125
265	269
4 560	4 369
4 825	4 638
-255 475	-251 487
40 479	38 133
9 909	15 944
30 571	22 189
266 403	274 502
41 498	45 204
2	2 149
1492	-565
3 478	3 372
-3 662	-4 407
35 852	39 009
	265 4560 4 825 -255 475 40 479 9 909 30 571 266 403 41 498 2 1492 3 478 -3 662

GROUP BALANCE SHEET, 1 000 €

	Note	31.12.2014	31.12.2013
ASSETS			
FIXED ASSETS			
Intangible assets	9	1357	297
Tangible assets	10	22.001	00.010
Land and water areas		33 881 299 864	29 313 289 780
Buildings and constructions Machinery and equipment		37 513	38 425
Other tangible assets		1904	1096
Advance payments and work in progress		2 391	1129
Travario payments and worms progress		375 552	359 743
Investments	13		
Shares in associated companies		2 955	2764
Other shareholdings	12	897 109	825 706
Finnish goverment's bonds		0	0
		900 064	828 470
TOTAL FIXED ASSETS		1 276 972	1 188 510
CURRENT ASSETS			
Inventories		376	364
Receivables		0.0	•
Long-term receivables		3 258	6 883
Short-term receivables			
Accounts receivable		35 549	41 623
Other receivables		853	491
Prepaid expenses and accrued income	15	23 458	19 392
		59 859	61 506
Securities		43 335	57 135
Cash and bank		19 544	58 083
Special purpose funds w separate assets, cash and bank		1 704	3 277
TOTAL CURRENT ASSETS		128 076	187 248
TOTAL ASSETS		1 405 048	1 375 758
		1 400 040	1070700
EQUITY AND LIABILITIES			
EQUITY	17		
Endowment capital		280 000	280 000
Operating equity		154 644	154 644
Capital reserve		412 477	412 477
Special purpose funds		34 877	34 879
Special purpose funds with separate assets		1633	3125
Surplus from previous years Surplus of the financial year		144 012 35 852	104 259 39 009
TOTAL EQUITY		1 063 494	1 028 393
TOTAL EGOTT		1 003 494	1 020 333
MINORITY INTERESTS		63 557	61 550
LIABILITIES			
Long-term Cong-term			
Loans from financial institutions		181 990	186 371
Advance payments		265	340
Other long-term liabilities		0	2 000
Total long-term liabilities		182 256	188 711
Short-term			
Loans from financial institutions		5 931	5 668
Advance payments		33 257	31 559
Accounts payable		10 602	11 133
Accrued tax		6 953	6 3 2 4
Other short-term liabilities	10	14 763	15 696
Accrued expenses	18	24 164	26 571
Special purpose funds with separate assets, accrued expenses	18	71 05 741	152
Total short-term liabilities TOTAL LIABILITIES		95 741 277 997	97 104 285 815
TOTAL EMPILITIES			203 013
TOTAL EQUITY AND LIABILITIES		1 405 048	1 375 758

GROUP CASH FLOW STATEMENT, 1 000 €

CASH FLOW FROM OPERATIONS	1.131.12.2014	1.131.12.2013
Surplus/Deficit from ordinary operations	-254 361	-252 330
Depreciation included in the above	21 609	19 460
Change in net working capital	21000	15 100
Change in inventories	-12	-26
Change in interest-free receivables	5 271	11 012
Change in interest-free debts	-2 717	-4 535
Total cash flow from ordinary operations	-230 209	-226 419
Cash flow from fundraising	345	269
Received general grants	266 403	274 502
Paid direct taxes	-4 280	-2 277
Special purpose funds with separate assets	-5 972	-3 804
TOTAL CASH FLOW FROM OPERATIONS (A)	26 287	42 271
CASH FLOW FROM INVESTMENTS		
Investments in tangible and intangible assets	-38 998	-23 295
Received investment grants	510	758
Proceeds from sales of tangible and intangible assets	11	8
Investments in financial assets	-71 594	-69 646
Other net proceeds from investment activities	30 571	22 189
TOTAL CASH FLOW FROM INVESTMENTS (B)	-79 501	-69 986
CASH FLOW FROM FINANCING		
Changes in equity	-980	-1288
Change in loans		
Withdrawed short-term loans	264	133
Paid long-term loans	-4 381	0
Withdrawed long-term loans	0	34 465
Special purpose funds with separate assets	4 480	4 3 6 9
TOTAL CASH FLOW FROM FINANCING (C)	-618	37 679
CHANGE IN CASH AND BANK (A+B+C)	-53 831	9 964
Cash and bank beginning of period	115 218	105 920
Cash and bank end of period	62 879	115 218
Cash and bank, Special purpose funds with separate assets beginning of period	3 125	2610
Cash and bank, Special purpose funds with separate assets end of period	1633	3 277
CHANGE IN CASH AND BANK	-53 831	9 964

Aalto University Foundation

Aalto University Foundation forms a group, domiciled in Helsinki.

The annual statements and financial reports of the Aalto University Foundation are available at Aalto University Foundation, Lämpömiehenkuja 2. 02150 Espoo.

Accounting principles

Aalto University Foundation's accounting complies with the principles laid down in the Finnish Accounting Act (1336/1997) and the Accounting Code for Universities (1/500/2013) issued by the Ministry of Education and Culture (MoE).

Valuation of fixed assets

Fixed assets have been valued at the original acquisition cost deducted by accumulated depreciation according to plan. Depreciation according to plan has been calculated from intangible assets according to straight-line depreciation and from tangible assets based on straight-line depreciation or declining depreciation. Minimum value for activating fixed asset to balance sheet is 10 000 euro.

Depreciation according to plan categories are:

Asset group	Depreciation method	Period
Intangible assets	$Straight\mbox{-line depreciation}$	$4-10\mathrm{years}$
Buildings	$Straight\mbox{-line depreciation}$	23-40 years
Longstanding		
teaching and research	1	
equipment, heavy		
machinery	Straight-line depreciation	15 years

Equipment, machinery and

furniture Straight-line depreciation 4–5 years/

or declining depreciation 25%

Valuation of inventories

Inventories are valued in the balance sheet at acquisition cost or at replacement cost or at probable selling price, whichever is the lowest.

Valuation of financial assets

Financial assets are valued in the balance sheet at acquisition cost or net realizable value if lower.

Value added tax compensation receivables

According to the University Act the Ministry of Education and Culture shall compensate to the universities the value added tax included in the cost incurred by the universities in the provision of educational services and in procurement and facility rents relating to research other than commercial research.

During the financial year the foundation has followed net procedure as regards to the VAT. The receivables relating to the VAT compensation from the MoE is recorded in long-term receivables and has been calculated according to the principles set in the Accounting Code for Universities.

Revenue recognition

The revenue from ordinary operations of the university is recognized as a percentage of completion using cost to cost method. The non-invoiced turnover of the subsidiaries involved in business transactions is recorded in the accounts according to estimated level of completion of the deliverable. The corresponding receivable is recorded in the accrued income. Received advance payments are recorded in the balance sheet as short-term debts. The revenue from educational programmes is recorded as income in proportion of number of training days provided.

Business activities

Business activities are operations that according to tax authorities are subject to corporate income tax. In accounting all projects that fulfill the business activity characteristics defined by tax authorities have been classified as business activities.

Statutory pension

Statutory pension for employees born before January 1st, 1980 and transferred from the three earlier universities has been arranged through Keva and for other employees in an external pension insurance company. Pension fees are expensed according to accrual basis.

Items in foreign currencies

Receivables and payables in foreign currencies have been translated into euro at the average exchange rate in force on the last day of the financial year.

Management compensation

The management compensation includes salaries and other compensation paid to the members of the Foundation Board of Trustees and the President and for the Board members and CEO's of the Group subsidiary companies.

Pro forma income statement

A Pro forma income statement is included in the Financial Statements. In order to give a better overview of the financials. Pro forma income statement does not follow the official income statement structure. Pro forma income statement is not audited.

Accounting principles and extent of the consolidated accounts

The Group consolidation is done according to the acquisition cost method. In addition to the parent organization Aalto University Foundation, the accounts of the subgroups Aalto Holding Oy and Aalto-Yliopistokiinteistöt Oy have been consolidated.

In addition, the proportion of Aalto University Foundation's shareholding in the associated real estate company Kiinteistö Oy Helsingin Pohjoinen Hesperiankatu 23A (50.0%) and the associated housing company Asunto Oy Eteläinen Hesperiankatu 4 (26.98%) are consolidated in the group accounts.

Associated companies Otaverkko Oy (47.37%) and Otahalli Oy (25.0%) have not been consolidated in the group accounts as consolidation is not necessary to give true and fair view of the financial situation of the Aalto University Foundation group.

Internal business operations, internal receivables and liabilities, mutual ownership as well as internal profit sharing have been eliminated.

Goodwill's depreciation plan is five year straight-line.

The income statement of the foreign group company has been converted into euros with ECB's average exchange rate for the financial year. Balance sheet has been converted into euros with the exchange rates at the end of the financial year. Differences in exchange rates and elimination of shareholding caused by conversions are recorded in Surplus of the financial year.

NOTES TO INCOME STATEMENT, 1 000 €

1. TOTAL INCOME AND EXPENSES	Foundation 2014	Foundation 2013	Group 2014	Group 2013
Total income	437 663	463 101	450 867	477 218
Total expenses	405 000	430 251	415 015	438 208
Difference	32 663	32 850	35 852	39 009
2. GRANT INCOME	Foundation 2014	Foundation 2013	Group 2014	Group 2013
Tekes grants	30 905	37 507	31 135	37 547
Academy of Finland grants	31 427	34 229	31 427	34 229
European Union grants	21 285	20 166	21 285	20 166
Other grants	15 012	17 466	15 266	17 466
Total	98 628	109 368	99 112	109 408

3. INCOME STATEMENT BY FIELD OF OPERATION Foundation 2014 Foundation 2013

Income		
Income from grants	6 497	7 218
Income from business activities	1383	9 982
Other income	3 321	2 766
	11 202	19 966
Expenses		
Personnel expenses	39 697	38 600
Depreciation	799	844
Other expenses	10 143	12 866
Share of common expenses	63 698	66 420
	114 337	118 729
Education total	-103 135	-98 762
Research		
ncome		
Income from grants	91 101	101 101
Income from business activities	10 417	10 702
Other income	6 582	8 901
	108 100	120 704
Expenses		
Personnel expenses	99 364	103 838
Depreciation	3 507	3 292
Other expenses	21 076	23 616
Share of common expenses	155 909	166 016
	279 855	296 762
Research total	-171 755	-176 059
Artistic activities		
ncome		
Income from grants	7	0
Income from business activities	2	0
Other income	10	10
_	19	10
Expenses		
Personnel expenses	311	184
Depreciation	8	6
Other expenses	303	265
Share of common expenses	782	579
	1 404	1 035
Artistic activities total	-1 385	-1 025

Societal impact				
Income				
Income from grants	1023	1049		
Income from business activities	369	180		
Other income	184	326		
	1 577	1 555		
Expenses				
Personnel expenses	1168	1 153		
Depreciation	25	24		
Other expenses	706	530		
Share of common expenses	2 388	2 168		
	4 286	3 875		
Societal impact total	-2 710	-2 320		
Common expenses				
Personnel expenses	116 042	122 276		
Depreciation	2 930	3 294		
Other expenses -transferred to functions	103 804 -222 777	109 612 -235 182		
Total common expenses	0	0		
4. PERSONNEL EXPENSES	Foundation 2014	Foundation 2013	Group 2014	Group 2013
4. FERSONNEL EXPENSES	Foundation 2014	Foundation 2013	Group 2014	Group 2013
Salaries and other compensations	209 575	220 615	216 516	225 503
Pension expenses	38 655	37 122	40 006	37 946
Other social expenses	8 351	8 315	8 630	8 543
Total	256 582	266 052	265 153	271 992
5. OTHER EXPENSES	Foundation 2014	Foundation 2013	Group 2014	Group 2013
Materials and supplies	11 169	12 257	18 910	20 169
Rents and facility expenses	68 092	70 614	22 771	25 805
Travel expenses	11 560	13 635	11 785	13 892
Services	28 074	34 516	36 443	42 346
Other expenses	17 136	15 867	26 002	22 405
Total	136 031	146 889	115 911	124 617
6. PROFIT AND LOSS STATEMENT FOR BUSII Subject to corporate income tax	NESS ACTIVITIES	Foundation 2014		Foundation 2013
NET SALES		12 171		20 864
				570
Materials and supplies		423		
Materials and services Materials and supplies External services		423 1 010		3 309
Materials and supplies External services		423		3 309
Materials and supplies		423 1 010		3 309 3 879
Materials and supplies External services Personnel expenses		423 1 010 1 433		3 309 3 879 4 831
Materials and supplies External services Personnel expenses Salaries and other compensations		423 1 010 1 433 3 009		3 309 3 879 4 831 845
Materials and supplies External services Personnel expenses Salaries and other compensations Pension expenses		423 1 010 1 433 3 009 559		3 309 3 879 4 831 845 1 452
Materials and supplies External services Personnel expenses Salaries and other compensations Pension expenses Other social expenses		423 1 010 1 433 3 009 559 942		3 309 3 879 4 831 845 1 452 7 128
Materials and supplies External services Personnel expenses Salaries and other compensations Pension expenses Other social expenses Depreciations		423 1 010 1 433 3 009 559 942 4 511		3 309 3 879 4 831 845 1 452 7 128
Materials and supplies External services Personnel expenses Salaries and other compensations Pension expenses	NS	423 1 010 1 433 3 009 559 942 4 511		3 309 3 879 4 831 845 1 452 7 128 57 8 916
Materials and supplies External services Personnel expenses Salaries and other compensations Pension expenses Other social expenses Depreciations Other expenses	NS	423 1 010 1 433 3 009 559 942 4 511 57 6 081		570 3 309 3 879 4 831 845 1 452 7 128 57 8 916

7. DEPRECIATION AND AMORTIZATION	Foundation 2014	Foundation 2013	Group 2014	Group 2013
Depreciation according to plan				
Intangible assets	49	63	49	63
Goodwill	0	0	92	70
Other long-term expenditure	22	27	64	48
Buildings	12	12	10 431	9 836
Machinery and equipment	7 179	7 279	8 949	8 777
Other tangible assets	0	0	27	0
Additional depreciation	8	79	463	0
Amortization	0	0	1 5 5 6	666
Total	7 269	7 460	21 631	19 460
8. TAX	Foundation 2014	Foundation 2013	Group 2014	Group 2013
Tax	32	212	2850	3 605
Change in deferred tax	0	0	628	-233

32

212

3 478

3 372

NOTES TO BALANCE SHEET, 1 000 €

9. INTANGIBLE ASSETS	Foundation 2014	Foundation 2013	Group 2014	Group 2013
Intellectual property rights				
Acquisition value 1.1.	585	530	587	532
Increases	592	54	609	54
Acquisition value before depreciation 31.12.	1 177	585	1 195	587
Total depreciation 1.1.	-481	-418	-481	-418
Depreciation for the financial year	-49	-63	-49	-63
Total depreciation 31.12.	-530	-481	-530	-481
Book value 31.12.	647	104	665	106
Goodwill				
Acquisition value 1.1.	0	0	352	352
Increases	0	0	109	0
Acquisition value before depreciation 31.12.	0	0	461	352
Total depreciation 1.1.	0	0	-211	-141
Depreciation for the financial year	0	0	-92	-70
Total depreciation 31.12.	0	0	-303	-211
Book value 31.12.	0	0	158	141
Other long-term expenditure				
Acquisition value 1.1.	216	329	216	329
Increases	606	0	606	0
Decreases	-14	-113	-14	-113
Acquisition value before depreciation 31.12.	808	216	808	216
Total depreciation 1.1.	-166	-139	-166	-139
Depreciation for the financial year	-22	-27	-22	-27
Total depreciation 31.12.	-187	-166	-187	-166
Book value 31.12.	621	50	621	50
TOTAL INTANGIBLE ASSETS	1 268	154	1 444	297
10. TANGIBLE ASSETS	Foundation 2014	Foundation 2013	Group 2014	Group 2013
Land and water areas				
Acquisition value 1.1.	324	324	29 313	29 308
Increases	0	0	4 568	5
Acquisition value before depreciation 31.12.	324	324	33 881	29 313
Book value 31.12.	324	324	33 881	29 313
Buildings and constructions				
Acquisition value 1.1.	59	43	327 627	314 539
Increases	0	17	22 525	13 088
Acquisition value before depreciation 31.12.	59	59	350 153	327 627

Total

Total depreciation 1.1.	-20	-9	-37 847	-27 425
Depreciation for the financial year	-12	-12	-10 431	-9 836
Additional depreciation	0	0	-2 010	-587
Total depreciation 31.12.	-32	-20	-50 289	-37 847
Book value 31.12.	27	39	299 864	289 780
Machinery and equipment				
Acquisition value 1.1.	47 516	42 502	69 529	61 168
Increases	7 237	8 795	9 267	12 144
Investment grants from years 2011-2012	0	-2 112	0	-2 112
Investment grants, year 2014	-510	-758	-510	-758
Decreases	-713	-910	-713	-912
Acquisition value before depreciation 31.12.	53 530	47 516	77 573	69 529
Total depreciation 1.1.	-25 267	-18 904	-31 104	-23 242
Depreciation for the financial year	-7 179	-7 279	-8 949	-8 778
Write-offs' cumulative depreciation	0	929	0	929
Additional depreciation/amortization	-8	-12	-8	-12
Foreign exchange difference	0	0	0	-1
Total depreciation 31.12.	-32 454	-25 267	-40 061	-31 104
Book value 31.12.	21 077	22 249	37 512	38 425
Other tangible assets Acquisition value 1.1.	35	35	1138	439
Increases	0	0	877	698
Acquisition value before depreciation 31.12.	35	35	2 015	1 138
Total depreciation 1.1.	0	0	-42	-21
Depreciation for the financial year	0	0	-70	-21
Total depreciation 31.12.	0	0	-111	-42
Book value 31.12.	35	35	1 904	1 096
Advance payments and work in progress				
Acquisition value 1.1.	1129	1690	1129	1690
Increases	2 227	0	2 227	0
Decreases	-965	-561	-965	-561
Acquisition value before depreciation 31.12.	2 391	1 129	2 391	1 129
Book value 31.12.	2 391	1 129	2 391	1 129
TOTAL TANGIBLE ASSETS	23 853	23 776	375 551	359 743
11. INVESTMENT GRANTS	Foundation 2014	Foundation 2013		
Academy of Finland	510	729		
Other	0	29		

11. INVESTMENT GRANTS	Foundation 2014	Foundation 2013
Academy of Finland Other	510 0	729 29
Total	510	758

12. VALUE OF MARKETABLE SECURITIES	Foundation 2014	Foundation 2013	Group 2014	Group 2013
Market value	994 101	896 073	1037968	951 911
Book value	893 606	820 672	936 941	877 807
Difference	100 494	75 401	101 027	74 104

The value of marketable securities is included in the balance sheet in Other shareholdings. In addition of value of investments, other shareholdings include also ca. $3\,503\,000$ worth of shares in housing companies and other shares related to university's ordinary operations.

13. CHANGES IN INVESTMENTS	Foundation 2014 Foundation 2013		Group 2014	Group 2013
Shares in Aalto Group companies				
Book value 1.1.	102 305	102 305	0	0
Increases	0	0	0	0
Book value 31.12.	102 305	102 305		
Shares in associated companies				
Book value 1.1.	2 573	2 374	2764	2577
Increases	175	199	191	187
Decreases	-11	0	0	0
Book value 31.12.	2 737	2 573	2 955	2 764

Shares in jointly owned companies				
Book value 1.1.	3 215	3 215	0	0
Book value 31.12.	3 215	3 215	0	0
Other shareholdings				
Book value 1.1.	825 706	755 641	825 706	755 907
Increases	363 692	307 966	363 692	70 105
Decreases	-292 289	-237 900	-292 289	-305
Book value 31.12.	897 109	825 706	897 109	825 706
Finnish Goverment bonds				
Book value 1.1.	0	340	0	340
Decreases	0	-340	0	-340
Book value 31 12	0	0	0	0

14. ENDOWMENT PORTFOLIO

	Aquisition value	Market value	Book value
	31.12.	31.12.	31.12.
Acadian Emerging Markets Local Debt	10 000	9 619	9 619
Aktia Emerging Market Local Currency Bond+	10 004	10 133	10 004
Bluebay Emerging Market Investment Grade			
Corporate Bond	27 269	29 237	27 269
Capital Four Invest European High Income A	10 000	9 974	9 974
Danske Invest Europe Enhanced Index	75 212	84 022	75 212
Danske Invest North America Enhanced Index	34 727	51 437	34 727
eQ Emerging Markets Stock Index	46 532	49 034	46 532
eQ Euro Investment Grade Bond Index	17 362	22 012	17 362
eQ European Stock Index	60 922	77 035	60 922
eQUS Stock Index	31 413	53 044	31 413
EVLI Likvidi	86 621	88 825	86 621
EVLI Suomi Pienyhtiöt	15 026	18 901	15 026
Invesco Asia Consumer Demand Fund	19 783	21 615	19 783
Investec Emerging Markets Local Currency Debt	46 334	47 143	46 334
iShares Euro Corp bond Interest Rate Hedged ETF	63 517	62 877	62 877
JP Morgan Emerging Markets Debt Fund	50 300	49 261	49 261
Muzinich Enhanced Yield Short Term	73 963	76 614	73 963
Muzinich Short Duration High Yield Fund	28 235	29 834	28 235
Nordea 1 - European High Yield Bond Fund	14 539	20 485	14539
Odin Finland	26 179	24 769	24 769
OP-Likvidi	42 359	42 795	42 359
OP-Obligaatio Prima	24 298	25 704	24 298
PineBridge Latin America Small&Mid Cap	15 448	12 352	12352
Robeco Investment Grade Corporate Bonds	25 442	28 949	25 442
Robeco Investment Grade Corporate Bonds (duration hedged)	35 999	36 257	35 999
SEB Nordic Small Cap Fund	8717	12 172	8 717
Fixed-term deposit and cash	1719	1719	1719
	901 918	995 820	895 325

Endowment portfolio is included in Other shareholdings and Cash and bank.

15. PREPAID EXPENSES AND ACCRUED INCOME	Foundation 2014	Foundation 2013	Group 2014	Group 2013
Accrued interests	0	0	38	33
Accrued income	15 784	13 535	16807	2 282
Other prepaid expenses and accrued income	2 795	1395	6 613	17 077
Total	18 579	14 930	23 458	19 392

16. VAT COMPENSATION

TO. VAI COMPLISATION		
	Foundation 2014	Foundation 2013
Gross expenses entitled to VAT compensation		
Expenses in profit and loss statement	113 135	125 667
Expenses activated into fixed assets	9 963	11 123
Total	123 098	136 789
VAT compensation		
On expenses	22 547	23 827
On fixed asset activations	1923	2 127
Total VAT compensation	24 469	25 954
Received compensation from MoE	-24 920	-23 821
VAT compensation for the year	-451	2 133
Received compensation clearance from MoE	-3 174	-3 287
VAT compensation receivable 1.1.	5 883	7 037
VAT compensation receivable 31.12.	2 258	5 883

17. EQUITY

Equity	Foundation 2014	Foundation 2013	Group 2014	Group 2013	
Endowment capital 1.1.	280 000	280 000	280 000	280 000	
Endowment capital 31.12.	280 000	280 000	280 000	280 000	
0.11	ALO ANN	410.488	410.488	410 400	
Capital reserve 1.1. Capital reserve 31.12.	412 477 412 477	412477 412477	412 477 412 477	412 477 412 477	
ouplear reserve of .15.	110 111	112 111	112 111	110 111	
Operating equity 1.1.	154 644	154 644	154 644	154 644	
Operating equity 31.12.	154 644	154 644	154 644	154 644	
Special purpose funds 1.1.	34 879	37 028	34 879	37 028	
Annual return less expenses	-2	-2 149	-2	-2 149	
Special purpose funds 31.12.	34 877	34 879	34 877	34 879	
Special purpose fund with separate assets 1.1.	3 125	2 560	3 125	2 560	
Annual return less expenses	-1492	565	-1 492	565	
Special purpose fund with separate assets 31.12.	1633	3 125	1633	3 125	
Retained earnings 1.1.	113 389	80 539	143 268	104 378	
Changes in income and expenses in previous	113 303	00 000	140 200	104370	
accounting periods	670	0	725	-126	
Foreign exchange difference	0	0	19	7	
Surplus of the financial year Retained earnings 31.12.	32 663	32 850	35 852	39 009 143 268	
Total equity	146 722 1 030 353	113 389	179 864 1 063 494	1 028 393	
Total equity	1 030 353	998 514	1 063 494	1 028 393	
Depreciation difference included in equity	0	0	0	24 652	
SPECIAL PURPOSE FUNDS					
	Fund equity 1.1.2014	Special purpose fund's fixed	Received donations	Fund usage during financial	Fund equity 31.12.2014
	1.1.2014	annual return	donations	year	31.12.2014
Special purpose funds in economics		annaan rotann		you	
Helsingin kauppakorkeakoulun stipendirahastot	15 392	462	25	-14	15 866
Matti Lehden nimikkorahasto Helsingin kauppakorkeakoulun	119	4	0	0	123
palvelutoimintarahasto	4 920	148	0	0	5 067
Helsingin kauppakorkeakoulun yliopistorahasto	106	3	0	0	109
Special purpose funds in science and technological	av				
Professori E. J. Nyströmin rahasto	1705	51	0	-8	1748
Vuorineuvos Sundbergin laaturahasto	106	3	0	-3	106
Yritystoiminnan tukirahasto	1287	39	0	0	1326
Fabian Ahvenaisen rahasto Professori Hanneliuksen rahasto	624 29	19 1	0	-11 -1	631 29
Teräsbetoni Oy:n rahasto	71	2	0	-1	73
Insinöörien matka-apurahasto	96	3	0	-3	96
Oy Atlas Diesel Ab:n rahasto	85	3	0	-3	85
Arkkitehti Väinö Vähäkallion stipendirahasto	998	30	0	-30	998
Arkkitehti Annikki Paasikiven stipendirahasto	1914	57	0	-57	1914
Teknos Winter Oy:n rahasto Oiva Allan Pölkkysen rahasto	88 99	3	0	-2 -2	89 100
Aleksander ja Lucie Lampénin rahasto	2 139	64	0	-42	2 161
Oy Strömberg Ab:n rahasto	42	1	0	-1	42
Yhdistetty opiskelijarahasto	75	2	0	-2	76
Kansallis-Osake-Pankin rahasto	96	3	0	-2	97
Julius Tallbergin rahasto Ernst Wirtzenin rahasto	154 149	5 4	0	-4 0	155 154
DI Marja-Terttu Tanttisen rahasto	149	0	0	0	14
RAPAL-apurahat	22	1	0	-5	17
Paloturvallisuustekniikan professuuri	515	15	0	0	530
Helsinki University of Technology fund					
Mide	1942	58	0	-1038	962
Talotekniikan rahasto	88	3	0	-5	86
Maa- ja vesitekniikan tuki ry Puurakentaminen	509	15 0	0	-74 0	450 0
Alumnirahasto	17	1	0	0	17
Energiatekniikan professuuri	44	1	0	0	45
Tuotantoteollisuuden professuuri	17	1	0	0	18
Kaute	41	1	0	0	42
Tapani Järvisen Ympäristötekniikan rahasto Puunjalostustekniikan Prof. Maloney	82 61	2 2	0	-11 0	74 63
1 dangarostasteminiman 1 101. Watericy	01	۵	O .	J	03

Special purpose funds in art and design					
Helmi Grönlundin rahasto	407	12	0	-4	415
Professori Nils Erik Wickbergin rahasto	779	23	0	-14	788
Arkkitehtien matka-apurahasto	48	1	0	-1	48
Fundraising eligible to government capitalisation Teknistieteellisen koulutusalan rahasto,	on during the years 2014	1-2017			
pääoman käyttävä	0	0	15	0	15
Kauppatieteellisen koulutusalan rahasto,					
pääoman käyttävä	0	0	250	0	250
Special purpose funds total	34 879	1 046	290	-1 338	34 877

SPECIAL	PURPOSE FUN	D WITH SFPARATE	ASSETS

	Fund equity 1.1.2014	Received donations	Fund usage during financial	Fund equity 31.12.2014
AppCampus-rahasto	3 125	4 478	year -5 970	1633
18. ACCRUED EXPENSES	Foundation 2014	Foundation 2013	Group 2014	Group 2013
Accrued salaries and wages	19 995	21690	21 043	22 268
Accrued tax	0	31	267	779
Other accrued expenses	2 092	2 693	3 793	3 677
Total	22 087	24 414	25 104	26 724

OTHER NOTES, 1 000 €

19. LEASE CONTRACTS	Foundation 2014	Foundation 2013	Group 2014	Group 2013
Lease payments due within one year	681	697	816	795
Lease payments due later	752	945	950	1038
Total	1 433	1 642	1 766	1 833
20. RENTAL AGREEMENTS (incl. VAT)	Foundation 2014	Foundation 2013	Group 2014	Group 2013
Rental agreement liabilities due within one year	73 559	70 291	18 403	18 814
Rental agreement liabilities due later	580 365	351 201	37 324	50 986

 $Rental\ agreement\ liabilities\ towards\ A alto\ University\ Properties\ Oy\ due\ next\ accounting\ period\ are\ 56\ 261\ 024\ \epsilon\ and\ due\ later$ 553 067 864€. Rental agreement liabilities include contractual index increases up to 1.1.2015.

21. DERIVATIVE CONTRACTS

 $Derivatives \ in \ the \ Aalto \ Group \ consist \ of \ commodity \ (electricity) \ and \ interest \ rate \ swap \ agreements \ as \ well \ as \ interest \ rate \ and$ $currency\ exchange\ swaps.\ Commodity\ swap\ agreements\ provide\ protection\ against\ fluctuation\ of\ electricity\ prices.\ Swap\ agreements\ provide\ protection\ against\ fluctuation\ of\ electricity\ prices\ of\ electricity\ of\ electricity\ of\ electricity\ of\ electricity\ of\ electricit$ ments extend to years 2015–2019.

Interest rate swaps will protect against intetest rate fluctuation by swapping the variable interest rate of bank loans to fixed rate. The contracts existing at the end of the fiscal year provide approximately 81% protection rate of the total interest-bearing loan portfolio.

	Foundation 2014	Foundation 2013	Group 2014	Group 2013
Electricity derivatives				
Protected amount, MWh	0	0	116 106	135 835
Current value of contracts	0	0	-907	-1033
Interest rate swap agreements				
Nominal value of contracts	0	0	184 838	212 929
Current value of contracts	0	0	-11 757	-6708
Interest and exchange rate swap agreements				
Nominal value of contracts	0	0	99 870	103 522
Current value of contracts	0	0	-1 118	1567
22. LIABILITIES WITH PROPERTY COLLATERAL	.s			
		Foundation 2013	Group 2014	Group 2013
Bank loans	0	0	183 272	187 289
Other loans	0	0	3 750	4 750
Total collateral loans	0	0	187 022	192 039
Total property collaterals	0	0	245 350	257 397

23. LIABILITIES WITH SHARES AS COLLATERALS

	Foundation 2014	Foundation 2013	Group 2014	Group 2013
Bank loans	0	0	36 750	38 500
Book value of shares deposited as collaterals	0	0	5 943	5943
24. LOANS WITH MATURING PERIOD OVER F				
	Foundation 2014	Foundation 2013	Group 2014	Group 2013
Bank loans	0	0	181 421	167 746

25. VAT REFUND LIABILITIES

Companies owned by the foundation have deducted VAT from their property investments and this involves liability to revise the deduction in case of alteration of use of the property. In 2009 the VAT refund liability relating to the property that was transfered from the Senate Properties was not transferred to the Group company (except Metallimiehenkuja 10 that was under renovation).

	Foundation 2014	Foundation 2013	Group 2014	Group 2013
VAT Refund liability 31.12.			•	•
Completed projects (10 year revision period)	378	454	14 434	14 666
Work in progress	0	0	4 973	2 554
Total	378	454	19 407	17 221
Total VAT relating to the investments under				
revision liablility				
Completed projects (10 year revision period)	756	756	19 705	18 269
Work in progress	0	0	4 973	2 554
Total	756	756	24 678	20 823

26. LEGAL PROCEEDINGS AND OTHER COMPENSATION CLAIMS

The foundation had one dispute matter in process at 31.12.2014. Total estimated risk relating to these disputes is 250 000 \mathfrak{C} .

27. OTHER CONTINGENT LIABILITIES

Other short term debts

Group company Aalto-yliopistokiinteistöt Oy has made an agreement with city of Espoo on land area usage. Agreement covers Otaniemi's city plan, which came into effect in July 2010. Contractual compensation od $640\,000\mathfrak{C}$ was paid in December 2012. Remaining compensation of $2\,000\,000\mathfrak{C}$ will due after receiving the building permit, or latest at the end of 2015.

Income taxation

The tax authorities have deviated from Aalto-yliopistokiinteistöt Oy's tax declaration for years 2009 and 2010. According to the tax authorities company's taxable income for 2010 was $13\,457\,674,73\mathfrak{C}$. Company has appealed to the administrative court, but the matter is still open. Income tax for the year 2010 is $3\,498\,955,43\mathfrak{C}$, which company has paid in full. Out of the paid tax a total of $3\,299\,125,18\mathfrak{C}$ is shown as tax receivable.

Covenants

Group-company Aalto-yliopistokiinteistöt Oy's collateral loans include covenants. Agreed terms cover for example company's ownership structure and financial solidity. Covenant terms are fulfilled and followed.

Share of mortgage

Foundation owns a 27% share of Asunto Oy Helsingin Eteläinen Hesperiankatu 4 housing company, which entitles to the use of 7 apartments. Housing company's mortgage relating to these 7 apartments is &2,32 million (&2,46 million).

28. AUDITOR FEES	Foundation 2014	Foundation 2013	Group 2014	Group 2013
Audit fees	56	69	121	137
Tax advisory fees	0	1	8	3
Other fees	0	11	8	36
Total	56	81	137	176
29. AVERAGE PERSONNEL	Foundation 2014	Foundation 2013	Group 2014	Group 2013
Teaching and research	3 225	3 469	3 225	3 469
Other personnel	1 514	1702	1635	1796
Total	4 739	5 171	4 860	5 265

30. MANAGEMENT COMPENSATION	Foundation 2014	Foundation 2013	Group 2014	Group 2013
*includes members of boards, the President and CEOs of group companies	360	355	1 052	998

31. SHARES IN OTHER COMPANIES

OT. STIAILES IN STITEL COMPANIES				
		Shares owned	Shares owned	
Company	Domicile	by Foundation	by group	Total equity
Aalto Holding Oy	Helsinki	100,00%	100,00%	(consolidated to group)
Aalto-yliopistokiinteistöt Oy	Espoo	66,67%	66,67%	(consolidated to group)
Asunto Oy Hgin Eteläinen Hesperiankatu 4	Helsinki	26,98%	26,98%	(consolidated to group)
Kiinteistö Oy Hgin Pohj. Hesperiankatu 23A	Helsinki	50,00%	50,00%	(consolidated to group)
Otahalli Oy	Espoo	25,00%	25,00%	1045
Otaverkko Oy	Espoo	47,37%	47,37%	899

