

2018 annual board report and financial statements



Aalto University

Annual Board Report 2018

Based on the audited Finnish version

The role of Aalto University

Aalto University is an autonomous, multidisciplinary science and art community, which operates in the fields of technology, business, art and design, and closely related fields.

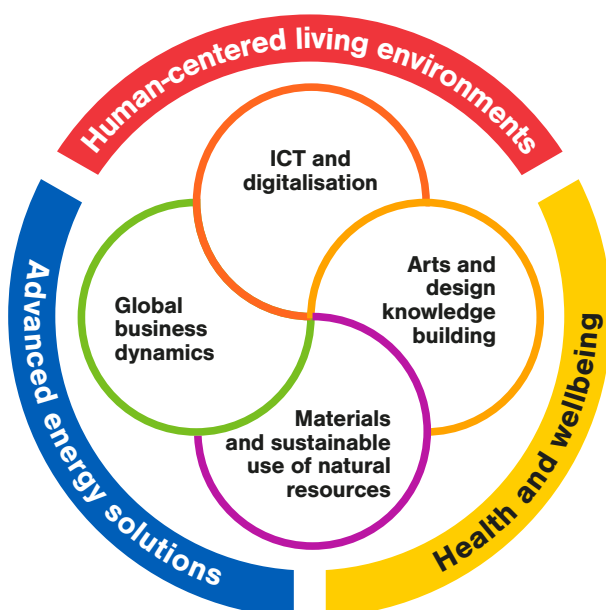
The university's mission and its activities seek to promote free research in addition to scientific and artistic education, provide research-based higher education, and educate students to serve society and humanity. In carrying out its mission, the university promotes life-long learning, interacts with society, and promotes the societal impact of research findings and artistic activities.

The national mission of the university is to promote Finland's success and make a positive impact on Finnish society, its economy, technology, art, design, internationalisation and competitiveness, as well as promote the welfare of humankind and the environment through high-quality research and education.

The university abides by the ethical principles of a world-class university in all its activities, while following the principles of good administration, safeguarding academic autonomy and the independence of the academic community all of which are prerequisites for the freedom of education, research and art.

Activities during 2018

2018 marked Aalto University's ninth year of operations. The university continued its research in seven key areas of particular strength and of prime importance for many of the big challenges facing society. These seven areas are ICT and digitalisation, materials, art and design, business, energy solutions, living environments, and health and wellbeing. In 2018, the university strengthened its activities in these areas, particularly in research on quantum technologies, smart transport, the future of work, and experiential practices for supporting the creative economy.



Key research areas of Aalto University

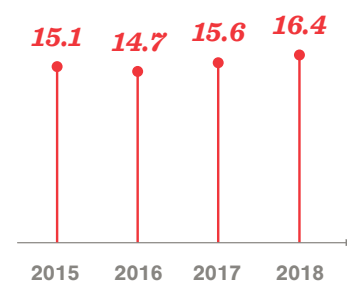
Development of the Otaniemi campus and the concentration of the university's core activities on this one campus has taken major steps in 2018. In the summer, the School of Arts, Design and Architecture left Arabia and relocated to the Väre building, at the heart of Otaniemi. The School of Business's new building was completed at the end of 2018, and the move from Töölö to the new location took place in February 2019. The start of 2018 saw the opening of A Grid, one of Europe's largest centres for growth companies. A Grid offers startups a direct channel for connecting with the Aalto University campus ecosystem, services and research infrastructure. The new shopping centre A Bloc, connected to the metro station and Väre building also opened its doors in 2018.

Aalto University continued to do well in international rankings in 2018. Aalto was ranked the 55th most international university in the Times Higher Education's World University Rankings, which lists the top 1 000 universities in the world. The university was ranked 22nd (27th) worldwide and 13th (16th) in Europe in the Times Higher Education's Young University Rankings, which includes 250 universities aged less than 50 years old. The QS World University Rankings Top 50 Under 50, which features the world's 150 best universities under 50 years old, placed Aalto 9th (7th) worldwide and 3rd (1st) within Europe. In total, depending on definition, there are 17 000 to 22 000 universities in the world.

Significant investments to professorships in the tenure track system also continued in 2018. At the end of 2018, there were 268 professors (243 in 2017) who had been appointed in the tenure track career system since the foundation of the university. Of these, 33% (31%) were international recruits and 26% (26%) were women. The number of professors who had been appointed before the year 2010 was 121 (143).

Research

In 2018 the quality of Aalto University's research advanced significantly. The number of most cited top 10% publications rose by 12% to 1 493 (1 332). In total, the university published 2 166 (2 165) international refereed articles in scientific journals. Competitive research funding obtained by the university rose by 7% to €91 (85) million, mainly due to an increase in funding acquired from the Academy of Finland to strengthen the profiling of universities and competitive EU funding.



Quality of publications

Share of Aalto University publications that belong to the top 10% most highly cited publications in the world in the same subject area. This indicator has been used since 2015.

Figures in parenthesis refer to 2017 unless otherwise mentioned.

Aalto University participated in six (7) national Centres of Excellence during 2018, and two (2) Academicians of Science worked at the university. The quality of research conducted at the university is also reflected in the fact that the university has 26 (26) recipients of research grants from the European Research Council (ERC), five (5) Academy professors, 41 (40) Academy researchers, and seven (9) Finland Distinguished Professor programme (FiDiPro) professors and fellows.

In the Aalto University Research, Art and Impact Assessment (RAI2018), international experts stated that the departments of Aalto University are of excellent international standard. They highlighted in particular the enthusiastic and pro-development approach, research and teaching infrastructure, the tenure track career system and the student-driven entrepreneurship ecosystem.

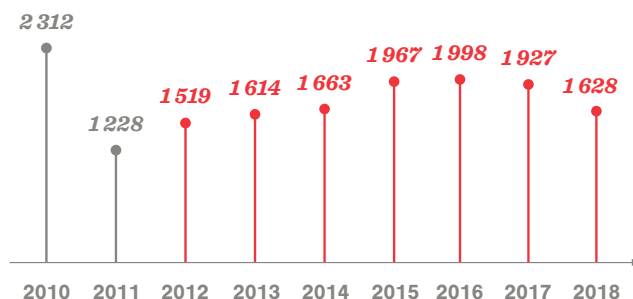
According to the Academy of Finland's 'State of scientific research 2018' report, the level of scientific research has risen in Finland during the 2010s. In national comparisons, Aalto University's research stood out in regards to internationalisation and impact of scientific publications.

The university received funding to develop five research infrastructures through the Academy of Finland's FIRI application process in 2018. Academy of Finland granted infrastructure funding to Bioeconomy, RawMatTERS Finland, Future Wireless Communication Networks, micro- and nanotechnologies infrastructure OtaNano, and Aalto Ice Tank.

During 2018, the Academy of Finland launched a Flagship Programme that promotes excellent research and supports future knowledge and sustainable solutions to societal challenges and advances economic growth by developing new business opportunities. The Academy of Finland selected six competence clusters to be funded under the programme. Aalto University coordinates the Finnish Centre for Artificial Intelligence and the Competence Centre for the Materials Bioeconomy flagships and participates in the Photonics Research and Innovation flagship.

Education

In 2018 a total of 1 218 (1 178) students completed a bachelor's degree, 1 628 (1 927) a master's degree, and 263 (256) a doctorate. The number of full-time equivalent bachelor's and master's degree students was 10 881 (10 646). The total number of degree students was 17 450 (17 345). Degree students earned a total of 483 979 (478 090) ECTS study credits, equivalent to an average of 33 (33) study credits per every active degree student. Foreign students totalled 3 645 (3 555), of which 73% (72%) were studying for a full degree. There was an increase in the university's applicant numbers for both bachelor's and master's studies. The number of international applicants for bachelor's studies increased significantly due to new English degree programmes in technology.



Master's degrees

The number of master's degrees was exceptionally large in 2010 and small in 2011 due to degree reform in the field of science and technology.

The number of doctorates exceeded the target set by the Ministry of Education and Culture, while the numbers of bachelor's and master's degrees were below the target. The exceptionally large number of bachelor's degrees completed in 2016, due to degree reform, continued to affect on the number of degrees completed in 2018. The proportion of students who completed at least 55 credits during the year saw another slight increase. The systematic work done to improve teaching quality was reflected in the improved results obtained in the national bachelor feedback.

The strategic development of Aalto University's teaching and learning continued with four main themes. The study programmes development project focused on qualitative development and promoting multidisciplinary in the university's study programmes. The student wellbeing project implemented low-threshold service solutions, such as Starting Point of Wellbeing, as well as tools and courses for promoting learning skills. For developing worklife skills, challenge-based learning solutions were tested out in all academic fields of Aalto University. In the online learning project A!OLE, the teacher network for fully or partially digitalised course implementations saw further expansion, and the courses have now reached a significant portion of Aalto students. In addition to strategy projects, the university has continued its long-term work to streamline study paths and promote on-time completion of studies.

Artistic activities

QS World University Rankings ranked Aalto University seventh (9th) in the field of art and design and 42nd (46th) in the field of architecture.

In 2018, the range of university-wide art studies were expanded: a total of 25 (21) courses were held during the year, with 1 152 (1 340) credits being earned by students. The courses are open to all Aalto University students.

Aalto University's international prominence in the fields of art, design and architecture continued, with the university receiving a number of awards and recognitions. The international success of the university's students was seen again in a range of fields, including fashion and textiles, game design and new media.

Figures in parenthesis refer to 2017 unless otherwise mentioned.

Impact

The education of new professionals and extensive collaboration with companies and other stakeholders are central elements of Aalto University's societal impact. There continues to be high demand for Aalto University graduates in the Finnish labour market. The university has intensified collaboration with its strategic partners and has sought new forms of collaboration after reductions were made in Business Finland funding. Collaboration with companies brought funding to the university amounting to €12 million (€12 million).

During the year, the university processed 151 (138) innovation proposals, filed 46 (52) patent applications, and realised 34 (50) transfers of technology or competence to businesses. Patent applications have increased during the past years, and in 2017 the amount was exceptionally high due to patent process improvement. An active innovation ecosystem has formed around Aalto University, which has been recognised as both nationally significant and internationally competitive. Numerous new companies are founded every year by students and faculty alike. Examples of Aalto University's student-driven entrepreneurship activities include Kiuas, selected as Finland's best business accelerator, the internationally renowned startup event Slush and Junction, Europe's leading hackathon event, with a global concept JUNCTIONx, that was launched in early 2018.

Aalto University's strategic partners also include public sector actors such as other universities and research institutes, and international innovation networks. One example of these is the Knowledge and Innovation Communities of the European Institute of Innovation and Technology, through which the university took new steps forward as Aalto was a founding partner of two winning consortia to establish Urban Mobility and Manufacturing Communities. The European Space Agency (ESA) has located a Business Incubation Centre at Aalto University, and the UN's Technology and Innovation Laboratory (UNTIL) operates in the university's facilities at A Grid. Aalto University aims to increase its societal impact by creating networks of international and national actors.

Aalto University provides executive education and continuing education through Aalto University Executive Education Oy (Aalto EE). In 2018, Aalto EE ranked 39th (46th) in the Financial Times Executive Education Ranking, putting it in the top 1% of executive educators in the world.

Governance

The main governing bodies of the university are the board, the president, the provost, the vice presidents, the Academic Affairs Committee, and the deans of the university's 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, the annual operating plan and budget, and for approving the financial statements and the university's regulations. The board appoints the

president, the provost, the vice presidents, the deans and other personnel reporting directly to the president and the provost. The board ensures that the university's operations are organised appropriately and that its assets are invested in a systematic and productive manner. The university board had five meetings during the year.

The Aalto University Academic Affairs Committee appointed **Ilkka Kivimäki** as a member of the Aalto University Board starting 1 January 2019. Chair of the Board **Anne Brunila** left the board in 2018, having been a member for the maximum time permitted by the Aalto University Foundation Constitution. The Aalto community wishes to thank Anne Brunila for her long-term and uncompromising work for the university.

The president leads the operation of the university in accordance with the Universities Act, the values of the university community, the strategy approved by the board and the orders and instructions provided by the board. The president leads the long-term strategic development and partnerships of the university.

The provost substitutes the president, supports the president in the strategic planning, the appointments of professors and the planning of resources, and leads all processes related to teaching, research and societal impact. The academic vice presidents report to the provost.

In 2018, the Aalto University Board appointed three vice presidents, each for a five year term: Vice President for Education at Tampere University of Technology **Petri Suomala** was appointed as Vice President for Education as of 1 September 2018, Vice Dean for Research at the School of Arts, Design and Architecture, Professor **Ossi Naukkarinen**, was appointed as Vice President for Research as of 1 November 2018, and Dean of the School of Chemical Engineering, Professor **Janne Laine**, was appointed as Vice President for Innovation as of 1 January 2019.

The Aalto University Board appointed **Kristiina Kruus**, Research Professor at the Technical Research Centre of Finland (VTT), as Dean of the School of Chemical Engineering for a five-year term starting on 1 December 2018.

The University Academic Affairs Committee is a multi-member executive body noted in the Universities Act. The Academic Affairs Committee 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 board's Nomination Committee has five members, three of whom represent the State of Finland and two other founding members.

The university is organised into six schools and shared service units. Led by the deans, the university's schools consist of departments, each led by a department head. The university's schools are responsible for teaching and research and are academically independent within the framework established by the university's strategy, guidelines, and annual operating plan and budget.

The university and its subsidiaries form the Aalto University Group, with the board and president being responsible for its governance. The president appoints university representatives to the annual meetings of subsidiaries, during which the board members of these companies are elected. The boards of the subsidiaries elect their CEOs, who are responsible for the operations of these companies.

Personnel

The number of the university's personnel was 4 052 full-time equivalents (3 947 in 2017 and 4 066 in 2016). A total of 60% (60%, 61%) were employed in teaching and research positions, 10% (10%, 9%) were degree students working as teaching and research assistants and 30% (30%, 30%) belonged to other personnel groups. In total 21% (21%, 23%) of the personnel were doctoral students.

A total of 37% (39%, 40%) of the personnel held a permanent employment contract and 86% (85%, 85%) worked full-time. Women accounted for 39% (39%, 38%) of all personnel. A total of 16% (16%, 16%) will reach the age of 65 within the next 10 years. The share of non-Finnish personnel was 29% (27%, 23%), which indicates the university's strong international focus.

At the end of 2018, the university had 389 (386, 386) professors, of whom 150 (139, 140) had fixed-term contracts. In total, 20% (20%, 19%) of professors were women. Approximately 36% (35%, 35%) of professors will be 65 or over within the next 10 years.

The average number of personnel employed by the Aalto University Group was 4 212 (4 112, 4 201). The University Group's personnel costs totalled €240 million (€228, €237 million), of which the university accounted for €228 million (€218 million, €228 million). Salaries and other remuneration paid to members of the board, the president, and members of the boards of Aalto University Group companies and their CEOs totalled €1.3 million (€1.2 million, €1.4 million).

Campus

The university carried out its long-term campus development programme by completing the construction of the new Väre building for use by the School of Arts, Design and Architecture. In addition, construction of the new A Bloc shopping centre reached completion and has considerably broadened the range of commercial services available in the Otaniemi area. The final stages of construction work of the new Business School building were completed in early 2019, and the School of Business moved into the facilities in February 2019. The A Grid startup centre, located in the former facilities of the School of Electronic Engineering at Otakaari 5, also opened its doors during 2018. The facilities of the new City of Espoo kindergarten and primary school at Lämpömiehenkuja 2 were completed, and construction work began on the secondary school to be built at Lämpömiehenkuja 3. At Vuorimiehentie

2, a development project was initiated together with the Geological Survey of Finland and VTT for the construction of Raw Material Hub research centre.

At the end of December, a total of 47 500 (29 500) square metres of the university's facilities were rented out to university partners. The most notable tenants include the City of Espoo, VTT Technical Research Centre of Finland, and Fortum.

Due to the space-saving programme, the university reduced its facility usage by 11% (9%) in 2018. The university's activities were centralised onto the Otaniemi campus when the facilities of the Arabia campus were vacated in summer 2018. For its own use the university had facilities totalling 228 000 m² (256 000 m²), with the Otaniemi campus accounting for 203 000 m² (210 000 m²), the Töölö campus for 20 000 m² (21 000 m²), and other sites for 4 000 m² (4 000 m²). Facility costs for the university totalled €52 million (€48 million) for the year.

In order to continue with flexible campus development, university properties were demerged at the start of 2018 into mutual real estate companies managed by Aalto University Properties Ltd.

Endowment

Aalto University has a long-term endowment strategy designed to support the implementation of its strategy. The goals of the endowment management are to provide a steady and predictable income to fund university operations as well as to preserve and accumulate the real value of the endowment capital in the long term. Preserving the real value of the endowment capital secures equality across generations by maintaining the purchasing power of the endowment capital and the funding it provides to the university's operations over time.

At the end of the year, the market value of the endowment portfolio was €983 million (€1 051 million). In 2018, a total of €15 million of cumulated real return from endowment was used to fund university operations. The endowment portfolio was increased in size during the year through the €7.5 million transfer made to the Tenure Track fund. The average annual return on the endowment portfolio in 2018 was 3.9% after expenses since the inception of operations. The annual return on the endowment portfolio in 2018 was -6.0% (6.5%) after expenses. At the end of 2018, 37% (44%) of the portfolio was held in fixed income instruments, 52% (52%) in equities and 11% (4%) in alternative risk.

Aalto University is committed to complying with the principles for responsible investment. The university is a member of Finland's Sustainable Investment Forum (FINSIF).

Figures in parenthesis refer to 2017 and 2016 unless otherwise mentioned.

Sustainable development

Sustainable development is a central part of Aalto University's strategy and shared values. The university takes sustainable development and responsibility into account in teaching, research and other operations. Campus development also has a key role in promoting sustainable development.

A number of significant sustainable development research projects began in 2018. In response to an invitation from the European commission, Outotec and Aalto University together coordinate research on recycling within the European battery industry. Aalto University received Academy of Finland's flagship funding for Materials Bioeconomy Competence Centre, which develops new bio-based materials to ensure sustainable development.

The university continued to participate actively in national and international networks. Aalto University became the first university in Finland to sign the international Sustainable Development Goals (SDG) Accord for universities. By signing the document, Aalto committed to advancing the UN goals for sustainable development as part of its teaching, research, innovation activities, and campus development.

Risk management

Risk management is an essential part of the management system of Aalto University, and it supports the realisation of the university's strategic and operational goals. To reach strategic and operational goals, the university mainly accepts the risks that are relative to the benefit to be gained and to the likelihood and extent of damages. For unrewarded risks, the strategy is avoidance or, when appropriate, cost-effectively mitigating risks to an acceptable level.

The main risk in Aalto University's operating environment is related to the safeguarding of funding for the university's operations in the long term. The unpredictability of public funding for the university sector can endanger the university's long-term academic activities. The uncertainty of financial markets can lead to risks that can have a negative impact on the university's endowment portfolio and spending policy for endowment returns, thus also impacting funding in the long-term.

The most significant stage of the university's campus investment programme is reaching its end, and the associated risks have decreased. As a consequence of Finland's economic situation and the excess supply of business premises in the Helsinki metropolitan area, it may become difficult to find external parties for renting out and selling facilities that have been vacated by the university due to the ongoing facility savings programme.

The principle underlying the university's property insurance cover is to insure key assets with a relatively high level of own risk. The insurances secure all assets that are essential and material for the university's operations. Aalto

University also has liability insurance cover in respect of possible damage caused by its operations to third parties, as well as management liability insurance cover in respect of 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 €347 million, up 1% from the €345 million recorded in the previous financial year (€353 million in 2016). The main sources of income were government funding totalling €219 million (€229 million, €237 million) and project grants: €51 million (€45 million, €40 million) from the Academy of Finland, €21 million (€19 million, €21 million) from the European Union, and €15 million (€18 million, €23 million) from Business Finland.

The university's pro forma operative expenses were €365 million, up 7% from the €341 million in the previous year (€358 million in 2016). Personnel and facility expenses formed the majority of expenses. Personnel expenses accounted for 62% (64%, 63%) and facility expenses 14% (14%, 18%) of operative expenses. Personnel expenses rose by 5% from the previous year, primarily due to an increase in the number of personnel. Facility expenses rose by 9% from the previous year. The most important factors contributing towards the rise in facility expenses were the mandatory provision required by the Accounting Act applied to rental expenses for long-term rented facilities which are no longer in use by the university, and the increased maintenance charges since the completion of Väre.

The university's pro forma operative deficit was €18 million (surplus €4 million, deficit €5 million).

The surplus in fundraising was €2 million (€11 million, €10 million). The decline in donations is mainly due to the end of a government capitalisation campaign in 2017, which attracted an exceptionally high level of donations. Fundraising income consisted of donations received, and expenses were mainly personnel expenses and service expenses. In the income statement, the capitalisation of donations raised to special purpose funds is deducted in Change in special purpose funds.

The deficit recorded in investment and financing activities totalled €64 million. In accordance with current accounting standards, the surplus/deficit for investment and financing activities includes both realised and unrealised gains and losses. The change in recognition method in 2018 impacted investment and financing activities' deficit by -€88 million compared to previous recognition method. The deficit for investment activities in 2018 primarily resulted from the unrealised change in the value of the endowment portfolio, which resulted from negative financial market development at the end of the year. Realised gains were obtained from changes in portfolio allocation and individual investment funds.

The net deficit for the university's financial year was €85 million (surplus €92 million, €16 million), which is -25% (27%, 4%) of the operative income.

The university's balance sheet totalled €1 669 million (€1 657 million, €1 545 million).

Figures in parenthesis refer to 2017 and 2016 unless otherwise mentioned.

In assets, the book value of investments decreased to €1 007 million (€1 113 million, €1 127 million) due to a decline in the market value of investments. Long-term receivables increased to €474 million (€371 million, €260 million) as a consequence of the increase in the Group's internal real estate loans.

In equity and liabilities, the capital reserve increased to €441 million (€437 million, €412 million) as a result of the capitalisation received from the Ministry of Education and Culture. Owing to the switch to the IFRS 9 standard, the capital of the fair value reserve was recorded as unrestricted funds (€99 million in 2017, €138 million in 2016). Special purpose funds remained at €59 million (€59 million, €47 million). Unrestricted funds increased to €260 million (€245 million, €138 million). The most significant changes to unrestricted funds were the transfer of the fair value reserve to unrestricted funds and the covering of the investment activities deficit from unrestricted funds. Long-term liabilities increased to €307 million (€274 million, €268 million) as a consequence of new bank loans obtained. Short-term liabilities increased to €138 million (€81 million, €65 million) as a result of implementation of the group's internal bank. In the internal bank, the cash assets of the foundation's subsidiaries are managed by the foundation and are foundation's liability to the subsidiaries.

In the cash flow statement, cash flow from operations fell to €11 million (€32 million, -€5 million). The cash flow from operations decreased due to increased personnel and other operational expenses as well as the decrease in government grant. Cash flow from investments was €29 million (-€57 million, -€234 million). Of the cash flow from investments, €44 million (-€14 million, €30 million) related to investment activities and -€15 million (-€14 million, -€7 million) related to teaching and research infrastructure and IT infrastructure. As a result of the implementation of the Group's internal bank, the loans provided and the internal bank balances are reported for 2018 as net amounts in cash flow from financing. Cash flow from financing was €-2 million (€22 million, €267 million). In addition to the changes brought by the internal bank, the most significant changes in cash flow from financing resulted from one-off capitalisation received from the Ministry of Education and Culture in 2017 and the increase in long-term bank loans. The university's total cash flow was €38 million (-€3 million, €28 million).

| KEY FIGURES, € million | 2018 | 2017 | 2016 |
|------------------------------------|--------------|--------------|--------------|
| Operative income | 347 | 345 | 353 |
| Operative surplus | -18 | 4 | -5 |
| Surplus from investment operations | -64 | 90 | 22 |
| Surplus from fundraising | 2 | 11 | 10 |
| Net surplus | -85 | 92 | 16 |
| Total cash flow | 38 | -3 | 28 |
| Total assets | 1 669 | 1 657 | 1 545 |
| Total equity | 1 221 | 1 302 | 1 213 |
| Total liabilities | 446 | 355 | 332 |

Activities with related parties

Aalto University maintains a register of its related parties, which covers all necessary, practically available information. The related parties register includes university's and its subsidiaries' decision makers and their family members, and is updated on a yearly basis.

A summary of financial activities with related parties is presented in the notes to the financial statements.

Aalto University Group

Aalto University Group's total income was €418 million (€488 million) and its total expenses were €506 million (€395 million). The Group recorded a net deficit of €88 million (surplus of €93 million).

The Group's balance sheet totalled €1 671 million (€1 712 million) at the end of the year. The decrease in the balance sheet included decline in the value of the university's endowment portfolio and significant campus investments. The Group's equity ratio was 76% (79%). Cash flow from Aalto University Group's operations was €23 million (€52 million) and the cash flow from investments was -€47 million (-€86 million). Cash flow from financing was €48 million (€21 million). The Group's total cash flow was -€24 million (€13 million).

Through the demerger of Aalto University Properties Ltd, the university's properties were divided into mutual real estate companies which began their operations on 1 January 2018. At the same time, the previous a sub-group was turned into several mutual real estate companies owned directly by the university.

The sub-group Aalto University Executive Education recorded a turnover of €22 million (€20 million) and its net profit was €1.0 million (€0.6 million).

All Aalto University Group companies have prepared their own financial statements for the financial year 2018.

Auditor

KPMG Oy Ab was the university's auditor during the financial year.

Major events after the financial year

Following the end of the financial year, the investment markets have developed in a positive direction, with the consequence that the market value of Aalto University's endowment portfolio has risen significantly.

No other events of a material nature affecting the financial status of the Aalto University Group and its financial statements for 2018 took place between the end of the financial year and the preparation of the financial statements.

Figures in parenthesis refer to 2017 and 2016 unless otherwise mentioned.

Financial Statements 2018



(Based on the audited Finnish version)

AALTO UNIVERSITY FOUNDATION PRO FORMA INCOME STATEMENT, €1m

(not audited)

| OPERATIVE INCOME | 2018 | % | 2017 | % | 2016 | % | 2015 | % | 2014 | % | 2013 | % | 2012 | % |
|--|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Government funding | 219 | 63% | 229 | 66% | 237 | 67% | 254 | 68% | 266 | 69% | 275 | 66% | 271 | 64% |
| Business Finland | 15 | 4% | 18 | 5% | 23 | 6% | 26 | 7% | 31 | 8% | 38 | 9% | 41 | 10% |
| Academy of Finland | 51 | 15% | 45 | 13% | 40 | 11% | 35 | 10% | 31 | 8% | 34 | 8% | 32 | 8% |
| European Union | 21 | 6% | 19 | 5% | 21 | 6% | 19 | 5% | 21 | 5% | 20 | 5% | 20 | 5% |
| Corporate | 12 | 4% | 12 | 4% | 13 | 4% | 13 | 3% | 14 | 4% | 22 | 5% | 26 | 6% |
| Other | 24 | 7% | 21 | 6% | 19 | 5% | 24 | 6% | 23 | 6% | 29 | 7% | 30 | 7% |
| Transfer from special purpose funds | 4 | 1% | 1 | 0% | 1 | 0% | 1 | 0% | 1 | 0% | 2 | 0% | 0 | 0% |
| TOTAL | 347 | 100% | 345 | 100% | 353 | 100% | 372 | 100% | 389 | 100% | 418 | 100% | 421 | 100% |
| OPERATIVE EXPENSES | | | | | | | | | | | | | | |
| Academic personnel | 160 | 44% | 153 | 45% | 162 | 45% | 172 | 45% | 174 | 43% | 179 | 43% | 181 | 43% |
| Service personnel | 67 | 18% | 64 | 19% | 65 | 18% | 73 | 19% | 83 | 21% | 87 | 21% | 86 | 20% |
| Facilities | 52 | 14% | 48 | 14% | 65 | 18% | 67 | 17% | 68 | 17% | 71 | 17% | 66 | 16% |
| Service purchases | 39 | 11% | 29 | 8% | 26 | 7% | 28 | 7% | 28 | 7% | 35 | 8% | 36 | 9% |
| Depreciations | 10 | 3% | 9 | 3% | 8 | 2% | 8 | 2% | 7 | 2% | 7 | 2% | 7 | 2% |
| Other | 36 | 10% | 38 | 11% | 32 | 9% | 37 | 10% | 40 | 10% | 42 | 10% | 48 | 11% |
| TOTAL | 365 | 100% | 341 | 100% | 358 | 100% | 385 | 100% | 400 | 100% | 420 | 100% | 424 | 100% |
| OPERATIVE SURPLUS/DEFICIT | | | | | | | | | | | | | | |
| | -18 | | 4 | | -5 | | -12 | | -11 | | -2 | | -4 | |
| Surplus/deficit from investment operations | -64 | | 90 | | 22 | | 30 | | 39 | | 31 | | 29 | |
| Surplus/deficit from fundraising | 2 | | 11 | | 10 | | 1 | | 5 | | 5 | | 4 | |
| Tax | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | |
| Transfer to special purpose funds | -5 | | -13 | | -12 | | 0 | | 0 | | 0 | | 0 | |
| NET SURPLUS/DEFICIT | -85 | | 92 | | 16 | | 18 | | 33 | | 33 | | 29 | |

FOUNDATION INCOME STATEMENT, €1 000

| | Note | 1.1.-31.12.2018 | 1.1.-31.12.2017 |
|---|------|-----------------|-----------------|
| ORDINARY OPERATIONS | | | |
| Income | | | |
| Income from grants | 2 | 98 318 | 93 667 |
| Income from business activities | 6 | 9 555 | 8 766 |
| Other income | | 15 412 | 12 829 |
| | | 123 285 | 115 261 |
| Expenses | | | |
| Personnel expenses | 4 | 227 417 | 216 833 |
| Depreciation and amortization | 7 | 10 182 | 9 347 |
| Other expenses | 5 | 127 451 | 114 675 |
| | | 365 050 | 340 855 |
| SURPLUS/DEFICIT FROM ORDINARY OPERATIONS | | -241 765 | -225 593 |
| FUNDRAISING | | | |
| Income | | | |
| Donations | | 2 614 | 11 004 |
| Expenses | | | |
| Fundraising expenses | | 607 | 430 |
| Fundraising total | | 2 007 | 10 574 |
| SURPLUS/DEFICIT AFTER FUNDRAISING | | -239 758 | -215 019 |
| INVESTMENT AND FINANCING ACTIVITIES | | | |
| Income | | | |
| Dividend income | | 4 291 | 2 894 |
| Interest income | | 5 163 | 3 886 |
| Profit on sale of investments | | 31 026 | 98 239 |
| Other income | | 6 286 | 3 327 |
| | | 46 766 | 108 345 |
| Expenses | | | |
| Interest expenses | | 3 278 | 4 157 |
| Loss on sale of investments | | 5 814 | 1 460 |
| Other expenses | | 13 569 | 6 644 |
| | | 22 662 | 12 261 |
| Changes in the fair value of investments | | | |
| Changes in the fair value of investments* | | -88 019 | -6 043 |
| Investment and financing activities total | | -63 916 | 90 041 |
| GENERAL GRANTS | | | |
| Universities Act based government grant | | 219 144 | 229 030 |
| SURPLUS BEFORE CHANGE IN SPECIAL PURPOSE FUNDS AND TAX | | -84 530 | 104 053 |
| CHANGE IN SPECIAL PURPOSE FUNDS | | | |
| Change in special purpose funds | | -556 | -12 210 |
| TAX | 8 | 284 | 218 |
| SURPLUS/DEFICIT OF THE FINANCIAL YEAR | | -85 370 | 91 625 |

*) Year 2017 only the change of the fair value of derivatives.

FOUNDATION BALANCE SHEET, €1 000

| | Note | 31.12.2018 | 31.12.2017 |
|---------------------------------------|------|------------------|------------------|
| ASSETS | | | |
| FIXED ASSETS | | | |
| Intangible assets | | | |
| Intangible assets | 9 | 1 147 | 1 204 |
| | | 1 147 | 1 204 |
| Tangible assets | | | |
| Buildings and constructions | 10 | 43 | 64 |
| Machinery and equipment | | 31 402 | 27 740 |
| Other tangible assets | | 229 | 215 |
| Advance payments and work in progress | | 3 476 | 1 352 |
| | | 35 150 | 29 370 |
| Investments | | | |
| Shares in Aalto group companies | 12 | 75 295 | 74 045 |
| Shares in associated companies | | 3 308 | 3 160 |
| Shares in jointly owned companies | | 3 215 | 3 215 |
| Other shareholdings | 13 | 924 746 | 1 032 760 |
| | | 1 006 565 | 1 113 180 |
| TOTAL FIXED ASSETS | | 1 042 862 | 1 143 755 |
| CURRENT ASSETS | | | |
| Inventories | | | |
| Inventories | | 59 | 0 |
| | | 59 | 0 |
| Receivables | | | |
| Long-term receivables | | | |
| Receivables, associated companies | | 2 000 | 2 000 |
| Loans to group companies | 14 | 470 275 | 369 480 |
| VAT compensation receivable | | 1 780 | 0 |
| Other receivables | | 52 | 0 |
| | | 474 107 | 371 480 |
| Short-term receivables | | | |
| Accounts receivable | 15 | 32 445 | 31 887 |
| Receivable, group companies | | 452 | 7 182 |
| Other receivables | | 5 088 | 10 534 |
| Prepaid expenses and accrued income | 15 | 12 989 | 29 139 |
| | | 50 974 | 78 742 |
| Cash and bank | | 101 129 | 62 907 |
| TOTAL CURRENT ASSETS | | 626 268 | 513 129 |
| TOTAL ASSETS | | 1 669 130 | 1 656 884 |

FOUNDATION BALANCE SHEET, €1 000

| | Note | 31.12.2018 | 31.12.2017 |
|---------------------------------------|------|------------------|------------------|
| EQUITY AND LIABILITIES | | | |
| EQUITY | | | |
| | 17 | | |
| Endowment capital | | 280 000 | 280 000 |
| Capital reserve | | 440 885 | 436 762 |
| Operating equity | | 154 644 | 154 644 |
| Fair value reserve | | 0 | 99 048 |
| Special purpose funds | 18 | | |
| Special purpose funds Expendable | | 20 485 | 23 311 |
| Special purpose funds Capitalizing | | 39 006 | 35 624 |
| Unrestricted funds | 19 | | |
| Tenure Track fund | | 23 880 | 17 500 |
| Investment Surplus fund | | 236 293 | 227 567 |
| Other equity | | | |
| Surplus from previous years | 17 | 48 584 | 25 991 |
| Surplus/Deficit of the financial year | 17 | -22 438 | 1 583 |
| TOTAL EQUITY | | 1 221 338 | 1 302 029 |
| PROVISIONS | | 2 065 | 0 |
| LIABILITIES | | | |
| | 20 | | |
| Long-term liabilities | | | |
| Loans from financial institutions | | 298 571 | 262 500 |
| VAT compensation liability | | 0 | 3 067 |
| Investment grant liability | | 2 589 | 1 918 |
| Other long-term liabilities | | 6 122 | 6 115 |
| | | 307 282 | 273 601 |
| Short-term liabilities | | | |
| Loans from financial institutions | | 5 929 | 2 500 |
| Advance payments | | 31 582 | 30 323 |
| Accounts payable | | 9 283 | 11 976 |
| VAT compensation liability | | 2 046 | 0 |
| Liabilities to group companies | | 55 385 | 55 |
| Other liabilities | | 11 652 | 15 425 |
| Accrued expenses | | 22 568 | 19 165 |
| | | 138 445 | 81 253 |
| TOTAL LIABILITIES | | 445 727 | 354 854 |
| TOTAL EQUITY AND LIABILITIES | | 1 669 130 | 1 656 884 |

FOUNDATION CASH FLOW STATEMENT, €1 000

| | 1.1.-31.12.2018 | 1.1.-31.12.2017 |
|---|-----------------|-----------------|
| CASH FLOW FROM OPERATIONS | | |
| Surplus/Deficit from ordinary operations | -241 765 | -225 605 |
| Depreciation included in the above | 10 182 | 9 347 |
| Change in net working capital | | |
| Change in inventories | -59 | 0 |
| Change in interest-free receivables | 26 904 | -7 659 |
| Change in interest-free debts | -4 766 | 16 647 |
| Total cash flow from ordinary operations | -209 503 | -207 270 |
| Cash flow from fundraising | 1 357 | 10 574 |
| Received general grants | 219 144 | 229 030 |
| Paid direct taxes | -276 | -218 |
| TOTAL CASH FLOW FROM OPERATIONS (A) | 10 722 | 32 116 |
| CASH FLOW FROM INVESTMENTS | | |
| Investments in tangible and intangible assets | -15 905 | -14 240 |
| Received investment grants | 1 146 | 658 |
| Proceeds from sales of tangible and intangible assets | 0 | 12 |
| Investments in financial assets | -435 548 | -404 538 |
| Proceeds from sales of financial assets | 480 701 | 392 610 |
| Other net proceeds from investments activities | -1 108 | -2 083 |
| Granted loans | 0 | -28 980 |
| TOTAL CASH FLOW FROM INVESTMENTS (B) | 29 286 | -56 562 |
| CASH FLOW FROM FINANCING | | |
| Changes in equity | 4 123 | 24 285 |
| Changes in the loan portfolio | | |
| Group net lending* | -45 410 | 0 |
| Paid short-term loans | -2 500 | -2 500 |
| Withdrawn long-term bank loans | 42 000 | 0 |
| TOTAL CASH FLOW FROM FINANCING (C) | -1 787 | 21 785 |
| CHANGE IN CASH AND BANK (A+B+C) | 38 222 | -2 661 |
| Cash and bank beginning of year | 62 907 | 65 568 |
| Cash and bank end of year | 101 129 | 62 907 |
| CHANGE IN CASH AND BANK | 38 222 | -2 661 |

*) Aalto Group launched an internal bank on January 1, 2018. Changes in group's internal debts and receivables are presented here.

GROUP INCOME STATEMENT, €1 000

| | Note | 1.1.–31.12.2018 | 1.1.–31.12.2017 |
|--|------|-----------------|-----------------|
| ORDINARY OPERATIONS | | | |
| Income | | | |
| Income from grants | 2 | 98 388 | 93 731 |
| Income from business activities | | 36 847 | 31 353 |
| Other income | | 15 865 | 18 329 |
| | | 151 100 | 143 412 |
| Expenses | | | |
| Personnel expenses | 4 | 238 682 | 227 149 |
| Depreciation and amortization | 7 | 27 885 | 24 484 |
| Other expenses | 5 | 130 933 | 116 192 |
| | | 397 501 | 367 825 |
| Profit/loss attributable to minority interests in associated companies | | -10 | -20 |
| SURPLUS/DEFICIT FROM ORDINARY OPERATIONS | | -246 411 | -224 433 |
| FUNDRAISING | | | |
| Income | | | |
| Donations and other income | | 2 614 | 11 004 |
| Expenses | | | |
| Fundraising expenses | | 607 | 430 |
| Fundraising total | | 2 007 | 10 574 |
| SURPLUS/DEFICIT AFTER FUNDRAISING | | -244 404 | -213 859 |
| INVESTMENT AND FINANCING ACTIVITIES | | | |
| Income | | 41 343 | 104 610 |
| Expenses | | 15 027 | 7 547 |
| Changes in the value of investments | | -88 019 | -6 043 |
| Investment and financing activities total | | -61 703 | 91 020 |
| GENERAL GRANTS | | | |
| Universities Act based government grant | | 219 144 | 229 030 |
| SURPLUS BEFORE CHANGE IN SPECIAL PURPOSE FUNDS | | -86 963 | 106 191 |
| CHANGE IN SPECIAL PURPOSE FUNDS | | | |
| Change in special purpose funds | | -556 | -12 210 |
| TAX | 8 | 617 | 663 |
| MINORITY INTERESTS | | 0 | -5 |
| SURPLUS/DEFICIT OF THE FINANCIAL YEAR | | -88 137 | 93 313 |

GROUP BALANCE SHEET, €1 000

| | Note | 31.12.2018 | 31.12.2017 |
|---------------------------------------|------|------------------|------------------|
| ASSETS | | | |
| FIXED ASSETS | | | |
| Intangible assets | 9 | 3 007 | 1 307 |
| Tangible assets | 10 | | |
| Land and water areas | | 40 033 | 39 022 |
| Buildings and constructions | | 414 443 | 310 305 |
| Machinery and equipment | | 57 365 | 48 492 |
| Other tangible assets | | 5 177 | 2 892 |
| Advance payments and work in progress | | 48 324 | 104 820 |
| | | 565 341 | 505 531 |
| Investments | 12 | | |
| Shares in associated companies | | 3 734 | 5 415 |
| Other shareholdings | 13 | 931 843 | 1 036 339 |
| | | 935 577 | 1 041 754 |
| TOTAL FIXED ASSETS | | 1 503 925 | 1 548 592 |
| CURRENT ASSETS | | | |
| Inventories | | 59 | 16 |
| Receivables | | | |
| Long-term receivables | | 3 139 | 1 277 |
| Short-term receivables | | | |
| Accounts receivable | | 34 494 | 34 537 |
| Other receivables | | 7 481 | 13 001 |
| Prepaid expenses and accrued income | 15 | 13 406 | 30 136 |
| | | 55 381 | 77 674 |
| Cash and bank | | 108 219 | 84 074 |
| TOTAL CURRENT ASSETS | | 166 798 | 163 041 |
| TOTAL ASSETS | | 1 670 723 | 1 711 633 |
| EQUITY AND LIABILITIES | | | |
| EQUITY | 17 | | |
| Endowment capital | | 280 000 | 280 000 |
| Capital reserve | | 440 885 | 436 762 |
| Operating equity | | 154 644 | 154 644 |
| Fair value reserve | | 0 | 99 048 |
| Special purpose funds | 18 | 59 491 | 58 934 |
| Unrestricted funds | 19 | 260 173 | 245 067 |
| Surplus from previous years | 17 | 76 637 | 51 583 |
| Surplus/Deficit of the financial year | 17 | -25 562 | 3 239 |
| TOTAL EQUITY | | 1 246 268 | 1 329 277 |
| MINORITY INTERESTS | | 0 | 94 |
| PROVISIONS | | 2 119 | 68 |
| LIABILITIES | 20 | | |
| Long-term | | | |
| Loans from financial institutions | | 306 175 | 271 530 |
| Advance payments | | 2 589 | 4 986 |
| Other long-term liabilities | | 6 122 | 6 115 |
| Total long-term liabilities | | 314 885 | 282 631 |
| Short-term | | | |
| Loans from financial institutions | | 6 362 | 3 101 |
| Advance payments | | 35 616 | 33 855 |
| Accounts payable | | 16 891 | 15 116 |
| Accrued tax | | 6 867 | 7 543 |
| Other short-term liabilities | | 16 298 | 18 360 |
| Accrued expenses | | 25 418 | 21 588 |
| Total short-term liabilities | | 107 452 | 99 563 |
| TOTAL LIABILITIES | | 422 337 | 382 194 |
| TOTAL EQUITY AND LIABILITIES | | 1 670 723 | 1 711 633 |

GROUP CASH FLOW STATEMENT, €1 000

| | 1.1.-31.12.2018 | 1.1.-31.12.2017 |
|---|-----------------|-----------------|
| CASH FLOW FROM OPERATIONS | | |
| Surplus/Deficit from ordinary operations | -246 411 | -224 413 |
| Depreciation included in the above | 27 885 | 24 484 |
| Change in net working capital | | |
| Change in inventories | -44 | 9 |
| Change in interest-free receivables | 20 432 | -4 825 |
| Change in interest-free debts | 2 630 | 17 379 |
| Total cash flow from ordinary operations | -195 508 | -187 365 |
| Cash flow from fundraising | 1 357 | 10 574 |
| Received general grants | 219 144 | 229 030 |
| Paid direct taxes | -1 650 | -243 |
| TOTAL CASH FLOW FROM OPERATIONS (A) | 23 343 | 51 996 |
| CASH FLOW FROM INVESTMENTS | | |
| Investments in tangible and intangible assets | -89 396 | -85 997 |
| Received investment grants | 1 146 | 658 |
| Proceeds from sales of tangible and intangible assets | 33 | 21 141 |
| Investments in financial assets | 41 924 | -22 102 |
| Other net proceeds from investment activities | -1 149 | -33 |
| TOTAL CASH FLOW FROM INVESTMENTS (B) | -47 442 | -86 333 |
| CASH FLOW FROM FINANCING | | |
| Changes in equity | 4 123 | 24 285 |
| Changes in the loan portfolio | | |
| Paid short-term loans | -2 500 | -32 |
| Withdrawn long-term loans | 42 000 | 0 |
| Paid long-term loans | -1 139 | -3 059 |
| TOTAL CASH FLOW FROM FINANCING (C) | 48 245 | 21 194 |
| CHANGE IN CASH AND BANK (A+B+C) | 24 145 | -13 143 |
| Cash and bank beginning of period | 84 074 | 100 796 |
| Cash and bank end of period | 108 219 | 87 653 |
| CHANGE IN CASH AND BANK | 24 145 | -13 143 |

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, Otakaari 24, 02150 Espoo.

Changes in accounting principles

Aalto University Foundation started to use IFRS 9 standard in accordance with the Accounting Act 5.2a § on the recognition of financial assets on 1 January 2018. The standard concerns the classification and valuation of financial assets and their recognition. All changes in the fair value of financial assets are booked in income statement. Financial liabilities are booked at amortized cost, except for derivative liabilities that are booked at fair value in income statement. The income statement's reference information for the year 2017 is not updated accordingly.

The balance of Fair value reserve at 31 December 2017 EUR 99,047,892 was transferred to Surplus from previous years.

The transition to IFRS 9 impacted the foundation's 2018 profit and loss by EUR -88,443,000 compared to previous recognition method. This was due to the change of recognizing the changes in valuations of fund investments in the income statement.

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). Financial assets and liabilities are valued at fair value through income statement or amortized cost in accordance with IFRS 9. Notes to financial assets and liabilities are presented in accordance with IFRS 7 where appropriate.

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.

Depreciation according to plan categories are:

| Asset group | Depreciation method | Period |
|---|--|----------------|
| Intangible assets | Straight-line depreciation | 4–10 years |
| Buildings | Straight-line depreciation | 23–40 years |
| Longstanding teaching and research equipment, heavy machinery | Straight-line depreciation | 10–15 years |
| Equipment, machinery and furniture | Straight-line depreciation or declining depreciation | 4–5 years /25% |

Valuation of inventories

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

Valuation of financial assets

Financial assets are valued at the market value.

Unrestricted funds

Investment and financing activities' surplus is transferred to the funds yearly, before approving the financial statements. The board decides on the use of the funds to cover the university's activities.

The fair value hierarchy

The fair value hierarchy of financial assets and liabilities valued at fair value is divided into three hierarchical levels with generally used calculation models.

Level 1: Fair values are based on quoted market prices of identical assets or liabilities.

Level 2: Fair values are to a significant extent based on other information than those used in level 1. Fair values are based on directly or indirectly verifiable prices or calculated based on market price components.

Level 3: Fair values are based on information on assets or liabilities that are not based on verifiable market information, for instance private equity fund.

Financial assets and liabilities

Aalto University Group reports financial assets and liabilities according to the principles below.

Financial assets are valued according to following valuation principles:

| Group of financial assets | Instruments | Valuation principle |
|--|--|---|
| 1. Financial assets at fair value through profit or loss | Fund investments, interest, electricity and currency derivatives | Fair value, changes in value are recognized in profit or loss |
| 2. Loans and other receivables | Sale and loan receivables, fixed-term deposits and other similar receivables | Amortised cost |

Classification is made in connection with the initial acquisition of financial assets based on the purpose of the acquisition. If an item is not valued at fair value through profit or loss, transaction costs are included in the original book values of financial assets.

Financial liabilities are valued according to following valuation principles:

| Group of financial liabilities | Instruments | Valuation principle |
|---|--|---|
| 1. Financial liabilities at fair value through profit or loss | Interest, electricity and currency derivatives | Fair value, changes in value are recognized in profit or loss |
| 2. Financial liabilities recognized at amortized cost | Bank loans, bonds | Amortised cost |

Costs originated from current liabilities are recognized as an expense in the financial period during which they incurred.

Derivate contracts

In 2018 the university employed interest rate swaps, electricity derivatives and FX forward exchange agreements. Derivatives are not subject to hedge accounting. Derivatives are included in the income statement and both realised and

unrealised profits and losses are included in the year they first arise. In the balance sheet the fair values of the derivatives are included in short term or long-term liabilities or receivables. The cash collateral of derivative agreement is shown in receivables.

Value added tax compensation receivables and liabilities

According to the Universities 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 have 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 programs 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 1 January 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 liabilities in foreign currencies have been translated into euro using the European Central Bank's rates at the financial statement closing date. Events realized during the financial year have been translated into euros using the transaction date's exchange rates.

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.

Associated companies Otahalli Oy (25,0%) and Asunto Oy Kartanontanhua (31,45%) 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. The Hamilton Lane Aalto Fund SICAV S.à.r.l fund acts as a fund of investment funds, hence it is included in investments in balance sheet, like other mutual funds. The company's financials are not consolidated in to financial statements line by line. Consolidation would not substantially improve the accuracy and adequacy of information.

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

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

| | Foundation 2018 | Foundation 2017 | Group 2018 | Group 2017 |
|--|------------------------|------------------------|-------------------|-------------------|
| 1. TOTAL INCOME AND EXPENSES | | | | |
| Total income | 399 704 | 463 912 | 417 629 | 488 328 |
| Total expenses | 485 075 | 372 287 | 506 124 | 395 015 |
| Difference | -85 370 | 91 625 | -88 494 | 93 313 |
| 2. GRANT INCOME | Foundation 2018 | Foundation 2017 | Group 2018 | Group 2017 |
| Business Finland grants | 15 186 | 18 207 | 15 253 | 18 271 |
| Academy of Finland grants | 50 791 | 45 076 | 50 791 | 45 076 |
| European Union grants | 21 265 | 18 688 | 21 265 | 18 688 |
| Other grants | 11 076 | 11 695 | 11 079 | 11 695 |
| Total | 98 318 | 93 667 | 98 388 | 93 731 |
| 3. INCOME STATEMENT BY FIELD OF OPERATION | Foundation 2018 | Foundation 2017 | | |
| Education | | | | |
| Income | | | | |
| Income from grants | 5 402 | 4 774 | | |
| Income from business activities | 521 | 447 | | |
| Other income | 783 | 666 | | |
| | 6 706 | 5 887 | | |
| Expenses | | | | |
| Personnel expenses | 26 244 | 26 819 | | |
| Depreciation | 1 333 | 1 334 | | |
| Other expenses | 6 981 | 6 635 | | |
| Share of common expenses | 25 308 | 25 243 | | |
| | 59 867 | 60 032 | | |
| Education total | -53 161 | -54 145 | | |
| Research | | | | |
| Income | | | | |
| Income from grants | 92 614 | 86 920 | | |
| Income from business activities | 8 933 | 8 132 | | |
| Other income | 13 419 | 12 133 | | |
| | 114 966 | 107 185 | | |
| Expenses | | | | |
| Personnel expenses | 131 454 | 123 465 | | |
| Depreciation | 6 678 | 6 142 | | |
| Other expenses | 34 966 | 30 547 | | |
| Share of common expenses | 126 764 | 116 213 | | |
| | 299 862 | 276 367 | | |
| Research total | -184 896 | -169 182 | | |
| Artistic activities | | | | |
| Income | | | | |
| Income from grants | 228 | 39 | | |
| Income from business activities | 22 | 4 | | |
| Other income | 33 | 5 | | |
| | 283 | 48 | | |
| Expenses | | | | |
| Personnel expenses | 935 | 599 | | |
| Depreciation | 48 | 30 | | |
| Other expenses | 249 | 148 | | |
| Share of common expenses | 902 | 564 | | |
| | 2 133 | 1 341 | | |
| Artistic activities total | -1 850 | -1 293 | | |
| Societal impact | | | | |
| Income | | | | |
| Income from grants | 820 | 1 967 | | |
| Income from business activities | 79 | 184 | | |
| Other income | 119 | 274 | | |
| | 1 018 | 2 425 | | |
| Expenses | | | | |
| Personnel expenses | 1 394 | 2 033 | | |
| Depreciation | 71 | 101 | | |
| Other expenses | 371 | 503 | | |
| Share of common expenses | 1 344 | 1 913 | | |
| | 3 180 | 4 550 | | |
| Societal impact total | -2 162 | -2 125 | | |

| Common expenses | | | | |
|---|------------------------|------------------------|------------------------|-------------------|
| Personnel expenses | 67 381 | 64 597 | | |
| Depreciation | 2 053 | 1 741 | | |
| Other expenses | 84 884 | 77 595 | | |
| -transferred to functions | -154 319 | -143 933 | | |
| Total common expenses | 0 | 0 | | |
| 4. PERSONNEL EXPENSES | Foundation 2018 | Foundation 2017 | Group 2018 | Group 2017 |
| Salaries and other compensations | 192 780 | 182 919 | 201 865 | 191 395 |
| Pension expenses | 31 129 | 29 314 | 32 933 | 30 859 |
| Other social expenses | 4 388 | 5 279 | 4 765 | 5 573 |
| Total | 228 297 | 217 512 | 239 563 | 227 828 |
| 5. OTHER EXPENSES | Foundation 2018 | Foundation 2017 | Group 2018 | Group 2017 |
| Materials and supplies | 14 378 | 14 974 | 21 746 | 23 515 |
| Facility expenses | 51 984 | 47 668 | 21 938 | 17 623 |
| Travel expenses | 11 188 | 11 037 | 11 426 | 11 350 |
| Services | 39 634 | 29 217 | 54 927 | 43 865 |
| Other expenses | 10 940 | 12 534 | 21 568 | 19 756 |
| Total | 128 124 | 115 429 | 131 605 | 116 110 |
| 6. PROFIT AND LOSS STATEMENT FOR BUSINESS ACTIVITIES | | | | |
| | Foundation 2018 | Foundation 2017 | | |
| Subject to corporate income tax | | | | |
| NET SALES | 9 555 | 8 766 | | |
| Materials and services | | | | |
| Materials and supplies | 238 | 179 | | |
| External services | 484 | 443 | | |
| | 721 | 622 | | |
| Personnel expenses | | | | |
| Salaries and other compensations | 2 289 | 2 099 | | |
| Pension expenses | 377 | 353 | | |
| Other social expenses | 731 | 711 | | |
| | 3 396 | 3 163 | | |
| Depreciations | 8 | 30 | | |
| Other expenses | 4 023 | 3 980 | | |
| PROFIT BEFORE TAXES AND APPROPRIATIONS | 1 407 | 970 | | |
| Tax | 286 | 197 | | |
| NET PROFIT | 1 121 | 773 | | |
| 7. DEPRECIATION AND AMORTIZATION | Foundation 2018 | Foundation 2017 | Group 2018 | Group 2017 |
| Depreciation according to plan | | | | |
| Intangible assets | 277 | 217 | 277 | 218 |
| Goodwill | 0 | 0 | 183 | 0 |
| Buildings and constructions | 21 | 24 | 14 080 | 12 432 |
| Machinery and equipment | 9 882 | 9 105 | 13 015 | 11 634 |
| Other tangible assets | 2 | 1 | 284 | 60 |
| Additional depreciation | 0 | 0 | 46 | 141 |
| Total | 10 182 | 9 347 | 27 885 | 24 484 |
| 8. TAX | Foundation 2018 | Foundation 2017 | Foundation 2018 | Group 2017 |
| Tax | 284 | 218 | 713 | 164 |
| Change in deferred tax | 0 | 0 | -95 | 499 |
| Total | 284 | 218 | 617 | 663 |

NOTES TO BALANCE SHEET, €1 000

| 9. INTANGIBLE ASSETS | Foundation 2018 | Foundation 2017 | Group 2018 | Group 2017 |
|--|-----------------|-----------------|----------------|----------------|
| Intellectual property rights | | | | |
| Acquisition value 1 Jan. | 2 256 | 1 923 | 2 252 | 1 941 |
| Increases | 272 | 335 | 274 | 313 |
| Decreases | -52 | -2 | -52 | -2 |
| Acquisition value before depreciation 31 Dec. | 2 476 | 2 256 | 2 475 | 2 252 |
| Total depreciation 1 Jan. | -1 052 | -835 | -1 030 | -835 |
| Depreciation for the financial year | -277 | -217 | -277 | -195 |
| Total depreciation 31 Dec. | -1 329 | -1 052 | -1 307 | -1 030 |
| Book value 31 Dec. | 1 147 | 1 204 | 1 168 | 1 223 |
| Goodwill | | | | |
| Acquisition value 1 Jan. | 0 | 0 | 548 | 461 |
| Increases | 0 | 0 | 1 914 | 87 |
| Acquisition value before depreciation 31 Dec. | 0 | 0 | 2 462 | 548 |
| Total depreciation 1 Jan. | 0 | 0 | -464 | -417 |
| Depreciation for the financial year | 0 | 0 | -159 | -46 |
| Total depreciation 31 Dec. | 0 | 0 | -623 | -464 |
| Book value 31 Dec. | 0 | 0 | 1 839 | 84 |
| TOTAL INTANGIBLE ASSETS | 1 147 | 1 204 | 3 007 | 1 307 |
| 10. TANGIBLE ASSETS | | | | |
| Land and water areas | | | | |
| Acquisition value 1 Jan. | 0 | 0 | 39 023 | 41 116 |
| Increases | 0 | 0 | 2 856 | 207 |
| Decreases | 0 | 0 | -1 846 | -2 301 |
| Acquisition value before depreciation 31 Dec. | 0 | 0 | 40 033 | 39 022 |
| Book value 31 Dec. | 0 | 0 | 40 033 | 39 022 |
| Buildings and constructions | | | | |
| Acquisition value 1 Jan. | 164 | 164 | 392 066 | 380 120 |
| Increases | 0 | 0 | 122 139 | 25 410 |
| Decreases | 0 | 0 | -3 911 | -13 464 |
| Acquisition value before depreciation 31.12. | 164 | 164 | 510 293 | 392 066 |
| Total depreciation 1 Jan. | -100 | -75 | -81 761 | -69 294 |
| Depreciation for the financial year | -21 | -24 | -14 089 | -12 467 |
| Total depreciation 31 Dec. | -121 | -100 | -95 850 | -81 761 |
| Book value 31 Dec. | 43 | 64 | 414 443 | 310 305 |
| Machinery and equipment | | | | |
| Acquisition value 1 Jan. | 85 146 | 69 630 | 120 153 | 101 046 |
| Increases | 13 674 | 15 528 | 21 776 | 19 959 |
| Decreases | -129 | -12 | -208 | -852 |
| Acquisition value before depreciation 31 Dec. | 98 691 | 85 146 | 141 722 | 120 153 |
| Total depreciation 1 Jan. | -57 407 | -48 301 | -71 662 | -60 125 |
| Depreciation for the financial year | -9 882 | -9 105 | -12 694 | -11 535 |
| Foreign exchange difference | 0 | 0 | -2 | -2 |
| Total depreciation 31 Dec. | -67 289 | -57 407 | -84 357 | -71 662 |
| Book value 31 Dec. | 31 402 | 27 740 | 57 365 | 48 492 |
| Other tangible assets | | | | |
| Acquisition value 1 Jan. | 216 | 25 | 3 509 | 2 728 |
| Increases | 16 | 191 | 3 019 | 781 |
| Decreases | 0 | 0 | -402 | 0 |
| Acquisition value before depreciation 31 Dec. | 232 | 216 | 6 126 | 3 509 |
| Total depreciation 1 Jan. | -1 | 0 | -618 | -417 |
| Depreciation for the financial year | -2 | -1 | -332 | -201 |
| Total depreciation 31 Dec. | -3 | -1 | -950 | -618 |
| Book value 31 Dec. | 229 | 215 | 5 177 | 2 892 |
| Advance payments and work in progress | | | | |
| Acquisition value 1 Jan. | 1 352 | 3 152 | 104 820 | 65 582 |
| Increases | 8 178 | 4 930 | 86 204 | 45 969 |
| Decreases | -6 054 | -6 730 | -142 700 | -6 730 |
| Acquisition value before depreciation 31 Dec. | 3 476 | 1 352 | 48 324 | 104 820 |
| Book value 31 Dec. | 3 476 | 1 352 | 48 324 | 104 820 |
| TOTAL TANGIBLE ASSETS | 35 150 | 29 370 | 565 341 | 505 531 |

| 11. INVESTMENT GRANTS | Foundation 2018 | Foundation 2017 |
|------------------------------|------------------------|------------------------|
| Academy of Finland | 1 096 | 658 |
| Other | 49 | 0 |
| Total | 1 146 | 658 |

Investment grant related refund liability on 31.12.2018 is €3 630 435 (in 2017 €3 727 509).

| 12. CHANGES IN INVESTMENTS | Foundation 2018 | Foundation 2017 | Group 2018 | Group 2017 |
|--|------------------------|------------------------|-------------------|-------------------|
| Shares in Aalto Group companies | | | | |
| Book value 1 Jan. | 75 295 | 156 538 | 0 | 0 |
| Increases | 0 | 1 758 | 0 | 0 |
| Decreases | 0 | -83 000 | 0 | 0 |
| Book value 31 Dec. | 75 295 | 75 295 | 0 | 0 |
| Shares in associated companies | | | | |
| Book value 1 Jan. | 3 160 | 3 012 | 5 415 | 5 267 |
| Increases | 148 | 148 | 334 | 148 |
| Book value 31 Dec. | 3 308 | 3 160 | 3 734 | 5 415 |
| Shares in jointly owned companies | | | | |
| Book value 1 Jan. | 3 215 | 3 215 | 0 | 0 |
| Book value 31 Dec. | 3 215 | 3 215 | 0 | 0 |
| Other shareholdings | | | | |
| Book value 1 Jan. | 1 032 760 | 964 133 | 1 032 760 | 964 133 |
| Increases | 307 421 | 505 236 | 314 921 | 508 089 |
| Decreases | -415 435 | -436 609 | -415 838 | -435 883 |
| Book value 31 Dec. | 924 746 | 1 032 760 | 931 843 | 1 036 339 |

| 13. ENDOWMENT PORTFOLIO | Domicile | Aquisition value 31.12.2018 | Market value 31.12.2018 | Book value 31.12.2018 |
|--|-----------------|--|------------------------------------|----------------------------------|
| Funds* | | | | |
| Aktia Emerging Market Local Currency Bond | Finland | 31 200 | 33 349 | 33 349 |
| Aktia Emerging Market Local Currency Frontier Bond | Finland | 18 047 | 18 463 | 18 463 |
| Aktia Nordic Micro Cap | Finland | 10 829 | 10 169 | 10 169 |
| AQR Managed Futures Offshore Fund Class B-EUR | Cayman Islands | 25 053 | 22 169 | 22 169 |
| AQR Style Premia Offshore Fund Ltd. Class B EUR | Cayman Islands | 20 591 | 17 908 | 17 908 |
| Capital Four Invest European Loan & Bond Fund | Luxembourg | 42 835 | 47 592 | 47 592 |
| Concordia G-10 Fixed Income Relative Value Class A | Bermuda | 16 616 | 16 826 | 16 826 |
| Eaton Vance Parametric Emerging Markets | Ireland | 17 541 | 20 221 | 20 221 |
| eQ Europe Stock Index | Finland | 46 481 | 55 858 | 55 858 |
| Evli Euro Liquidity | Finland | 40 655 | 41 853 | 41 853 |
| Evli Finnish Small Cap | Finland | 10 387 | 18 576 | 18 576 |
| Hamilton Lane Aalto Fund | Luxembourg | 22 279 | 21 437 | 21 437 |
| Investec Emerging Markets Local Currency Debt | Luxembourg | 17 118 | 16 747 | 16 747 |
| IPM Systematic Macro Fund | Cayman Islands | 15 000 | 14 188 | 14 188 |
| iShares Core EM IMI UCITS ETF | Ireland | 56 786 | 54 067 | 54 067 |
| iShares Core MSCI Japan IMI UCITS ETF | Ireland | 58 864 | 56 889 | 56 889 |
| iShares Core S&P 500 UCITS ETF | Ireland | 86 523 | 88 789 | 88 789 |
| iShares Edge MSCI EM Minimum Volatility UCITS ETF | Ireland | 9 557 | 11 070 | 11 070 |
| Lyxor Stoxx Europe 600 Banks UCITS ETF | France | 6 452 | 4 734 | 4 734 |
| Mirae Asia Great Consumer Equity Fund | Luxembourg | 16 256 | 17 616 | 17 616 |
| MW Liquid Alpha Plus Fund | Ireland | 15 040 | 15 175 | 15 175 |
| OP-Euro A | Finland | 57 015 | 56 862 | 56 862 |
| OP-Obligaatio Prima A | Finland | 23 781 | 24 792 | 24 792 |
| Parvest Bond World Emerging | Luxembourg | 26 900 | 25 740 | 25 740 |
| Robeco QI Global Dynamic Duration | Luxembourg | 21 000 | 20 411 | 20 411 |
| SPDR S&P U.S. Financials Select Sector UCITS ETF | Ireland | 11 990 | 10 909 | 10 909 |
| Systematica Alternative Markets Fund | Cayman Islands | 10 000 | 10 043 | 10 043 |
| Two Sigma Risk Premia Enhanced Cayman Fund | Cayman Islands | 15 217 | 15 410 | 15 410 |
| Vanguard S&P 500 UCITS ETF | Ireland | 77 910 | 80 066 | 80 066 |
| Xtrackers Stoxx Europe 600 UCITS ETF | Luxembourg | 81 135 | 71 736 | 71 736 |
| | | 909 056 | 919 661 | 919 661 |
| Other receivables and accrued income | | 666 | 666 | 666 |
| Fixed-term deposit and cash | | 61 880 | 61 880 | 61 880 |
| Shares in Aalto Group companies | | 1 250 | 1 250 | 1 250 |
| Endowment total | | 972 852 | 983 457 | 983 457 |
| * Aalto University Foundation invests only in funds registered in domiciles which participate in automatic exchange of tax information under the Common Reporting Standards (CRS). | | | | |
| Other shareholdings | | | | |
| Other shareholdings, Endowment | | 909 056 | 919 661 | 919 661 |
| Other shares | Finland | 5 084 | 5 084 | 5 084 |
| Other shareholdings total (Foundation) | | 914 141 | 924 746 | 924 746 |

| 14. OUTSTANDING LOANS | Foundation 2018 | Foundation 2017 | Group 2018 | Group 2017 |
|-----------------------------------|------------------------|------------------------|-------------------|-------------------|
| Long-term loan receivables | | | | |
| Loans to group companies | 470 275 | 369 480 | 0 | 0 |
| Loans to associated companies | 2 000 | 2 000 | 0 | 0 |
| Total | 472 275 | 371 480 | 0 | 0 |

The Aalto University Foundation has granted loans to its subsidiaries (ownership 100%) and a subordinated loan to an associated company. In the demerger of Aalto University Properties Ltd. the loans, granted to the company before fiscal year 2018, were transferred to the acquiring companies. The loans granted to the subsidiaries are bullet loans and they mature between 2022-2027. The subordinated loan will be paid back between 2031-2035.

| 15. ACCOUNTS RECEIVABLES, PREPAID EXPENSES AND ACCRUED INCOME | Foundation 2018 | Foundation 2017 | Group 2018 | Group 2017 |
|--|------------------------|------------------------|-------------------|-------------------|
| Accounts receivables | | | | |
| Less than 30 days | 28 369 | 26 959 | 30 336 | 29 294 |
| 30-180 days | 3 662 | 3 846 | 3 703 | 3 902 |
| 181-364 days | 213 | 339 | 246 | 343 |
| Over 364 days | 201 | 742 | 209 | 998 |
| Total | 32 445 | 31 887 | 34 494 | 34 537 |
| Prepaid expenses and accrued income | | | | |
| Accrued interests | 0 | 0 | 27 | 27 |
| Accrued income | 12 523 | 12 935 | 12 523 | 12 935 |
| Other prepaid expenses and accrued income | 467 | 16 204 | 857 | 17 174 |
| Total | 12 989 | 29 139 | 13 406 | 30 136 |

| 16. VAT COMPENSATION | Foundation 2018 | Foundation 2017 |
|--|------------------------|------------------------|
| Gross expenses entitled to VAT compensation | | |
| Expenses in profit and loss statement | 113 704 | 102 193 |
| Expenses activated into fixed assets | 18 741 | 17 367 |
| Total | 132 445 | 119 560 |
| VAT compensation | | |
| On expenses | 21 835 | 19 097 |
| On fixed asset activations | 3 119 | 3 261 |
| Total VAT compensation | 24 953 | 22 358 |
| Received compensation from MoE | 23 173 | 24 405 |
| VAT compensation for the year | 1 780 | -2 047 |
| VAT compensation receivable/liability 1 Jan. | -3 067 | -2 569 |
| Received compensation clearance from MoE | 1 021 | 1 549 |
| VAT compensation for the year | 1 780 | -2 047 |
| VAT compensation receivable/liability (net) 31 Dec. | -266 | -3 067 |

| 17. EQUITY | Foundation 2018 | Foundation 2017 | Group 2018 | Group 2017 |
|--|------------------------|------------------------|-------------------|-------------------|
| Endowment capital 1 Jan. | 280 000 | 280 000 | 280 000 | 280 000 |
| Endowment capital 31 Dec. | 280 000 | 280 000 | 280 000 | 280 000 |
| Capital reserve 1 Jan. | 436 762 | 412 477 | 436 762 | 412 477 |
| Increases, Governmental capitalization | 4 123 | 24 285 | 4 123 | 24 285 |
| Capital reserve 31 Dec. | 440 885 | 436 762 | 440 885 | 436 762 |
| Operating equity 1 Jan. | 154 644 | 154 644 | 154 644 | 154 644 |
| Operating equity 31 Dec. | 154 644 | 154 644 | 154 644 | 154 644 |
| Fair value reserve 1 Jan. | 99 048 | 138 126 | 99 048 | 138 126 |
| Transfer to Investment Surplus -fund | -99 048 | -39 079 | -99 048 | -39 079 |
| Fair value reserve 31 Dec. | 0 | 99 048 | 0 | 99 048 |
| Special purpose funds Expendable 1 Jan. | 23 311 | 12 978 | 23 311 | 12 978 |
| Received donations and return to capital | 984 | 10 688 | 984 | 12 210 |
| Use of funds | -3 810 | -355 | -3 810 | -355 |
| Special purpose funds Expendable 31 Dec. | 20 485 | 23 311 | 20 485 | 23 311 |
| Special purpose funds Capitalizing 1 Jan. | 35 624 | 33 747 | 35 624 | 33 747 |
| Received donations and return to capital | 4 039 | 2 359 | 4 039 | 2 359 |
| Use of funds | -657 | -482 | -657 | -482 |
| Special purpose funds Capitalizing 31 Dec. | 39 006 | 35 624 | 39 006 | 35 624 |
| Tenure Track fund 1 Jan. | 17 500 | 0 | 17 500 | 0 |
| Capital transfer to Tenure Track funds | 7 500 | 17 500 | 7 500 | 17 500 |
| Use of fund | -1 120 | 0 | -1 120 | 0 |
| Tenure Track fund 31 Dec. | 23 880 | 17 500 | 23 880 | 17 500 |
| Investment Surplus fund 1 Jan. | 227 567 | 137 526 | 227 567 | 137 526 |
| Capital transfer from Fair value reserve | 99 048 | 90 041 | 99 048 | 90 041 |
| Capital transfer to Surplus | -90 322 | 0 | -90 322 | 0 |
| Investment Surplus fund 31 Dec. | 236 293 | 227 567 | 236 293 | 227 567 |
| Surplus from previous years 1 Jan. | 27 574 | 43 491 | 54 822 | 69 469 |
| Changes in income and expenses in previous accounting periods | 282 | 0 | 806 | -386 |
| Capital transfer to Tenure Track fund | -7 500 | -17 500 | -7 500 | -17 500 |
| Capital transfer from Tenure Track fund | 1 120 | 0 | 1 120 | 0 |
| Capital transfer from Investment Surplus fund | 27 390 | 0 | 27 390 | 0 |
| Surplus from previous years 31 Dec. | 48 866 | 25 991 | 76 638 | 51 583 |
| Surplus/Deficit of the financial year in Income statement | -85 370 | 91 625 | -88 494 | 93 313 |
| Capital transfer from Investment Surplus -fund | 62 933 | -90 041 | 62 933 | -90 041 |
| Surplus/Deficit of the financial year in Balance Sheet | -22 438 | 1 583 | -25 562 | 3 272 |
| Total equity | 1 221 620 | 1 302 029 | 1 246 268 | 1 329 277 |

| 18. SPECIAL PURPOSE FUNDS | Fund equity 1.1.2018 | Special purpose fund's annual return | Received donations | Fund usage during financial year | Fund equity 31.12.2018 |
|--|-------------------------|--|-----------------------|--|---------------------------|
| Special purpose funds in business | | | | | |
| Helsingin kauppakorkeakoulun palvelutoimintarahasto | 5 699 | 370 | 0 | 0 | 6 070 |
| Helsingin kauppakorkeakoulun stipendirahastot | 17 748 | 1 154 | 0 | -131 | 18 770 |
| Helsingin kauppakorkeakoulun yliopistorahasto | 122 | 8 | 0 | 0 | 129 |
| Kauppatieteellinen koulutusala | 4 801 | 14 | 115 | -120 | 4 810 |
| Kaupunkitaloustieteen professuuri | 0 | 0 | 45 | -45 | 0 |
| Matti Lehden nimikkorahasto | 130 | 8 | 0 | -10 | 129 |
| Special purpose funds in science and technology | | | | | |
| Aleksander ja Lucie Lampénin rahasto | 2 253 | 146 | 0 | -53 | 2 347 |
| Alumnirahasto | 19 | 1 | 0 | 0 | 21 |
| Arkkitehti Annikki Paasikiven stipendirahasto | 1 914 | 124 | 0 | -124 | 1 914 |
| Arkkitehti Väinö Vähäkallion stipendirahasto | 998 | 65 | 0 | -65 | 998 |
| DI Marja-Terttu Tanttisen rahasto | 14 | 0 | 0 | 0 | 14 |
| Energiatekniikan professuuri | 1 | 0 | 0 | -1 | 0 |
| Ernst Wirtzenin rahasto | 164 | 11 | 0 | -8 | 167 |
| Fabian ja Jaakko Ahvenaisen rahasto | 673 | 44 | 957 | -14 | 1 659 |
| Informaatioverkostojen työelämäprofessuuri | 0 | 0 | 245 | -37 | 208 |
| Insinöörien matka-apurahasto | 95 | 6 | 0 | 0 | 101 |
| Julius Tallbergin rahasto | 165 | 11 | 0 | -4 | 172 |
| Kansallis-Osake-Pankin rahasto | 105 | 7 | 0 | -4 | 108 |
| Kaute | 43 | 0 | 0 | 0 | 43 |
| Maa- ja vesitekniikan tuki ry | 267 | 1 | 0 | -38 | 229 |
| Mide | 146 | 0 | 0 | -60 | 87 |
| Norman Ernest Loveless -rahasto | 0 | 0 | 93 | 0 | 93 |
| Oiva Allan Pölkkyksen rahasto | 106 | 7 | 0 | -4 | 109 |
| Oy Atlas Diesel Ab:n rahasto | 83 | 5 | 0 | 0 | 88 |
| Oy Strömberg Ab:n rahasto | 45 | 3 | 0 | -2 | 46 |
| Paloturvallisuustekniikan professuuri | 509 | 1 | 0 | -26 | 485 |
| Professori E. J. Nyströmin rahasto | 1 946 | 126 | 0 | -29 | 2 043 |
| Professori Hanneliuksen rahasto | 31 | 2 | 0 | -1 | 32 |
| Puunjalostustekniikan Prof. Maloney | 65 | 0 | 0 | 0 | 66 |
| Puurakentaminen | 0 | 0 | 0 | -1 | 0 |
| RAPAL-apurahat | 11 | 0 | 0 | -7 | 4 |
| Talotekniikan rahasto | 91 | 0 | 0 | -2 | 89 |
| Tapani Järvisen Ympäristötekniikan rahasto | 41 | 0 | 0 | -12 | 30 |
| Teknistieteellinen koulutusala | 10 535 | 31 | 1 | -79 | 10 487 |
| Teknologiakasvatuksen työelämäprofessuuri | 300 | 20 | 0 | -39 | 281 |
| Teknos Winter Oy:n rahasto | 94 | 6 | 0 | 0 | 100 |
| Teräsbetoni Oy:n rahasto | 74 | 5 | 0 | 0 | 79 |
| Vesitalouden vesi- ja kehitysrachasto | 614 | 2 | 400 | -299 | 717 |
| Vuorineuvos Sundbergin laaturahasto | 107 | 0 | 0 | -3 | 104 |
| Yhdistetty opiskelijarahasto | 81 | 5 | 0 | -2 | 84 |
| Yhdyskuntajätevesien käsittelyn työelämäprofessuuri | 0 | 0 | 477 | -22 | 455 |
| Yritystoiminnan tukirahasto | 1 454 | 94 | 0 | 0 | 1 548 |
| Special purpose funds in art and design | | | | | |
| Arkkitehtien matka-apurahasto | 48 | 3 | 0 | -3 | 48 |
| Helmi Grönlundin rahasto | 461 | 30 | 0 | 0 | 491 |
| Professori Nils Erik Wickbergin rahasto | 816 | 53 | 0 | -47 | 822 |
| Taiteellinen koulutusala | 1 137 | 3 | 0 | 0 | 1 141 |
| University funds | | | | | |
| Campus Development | 30 | 0 | 50 | 0 | 80 |
| Game Changers | 180 | 1 | 233 | -41 | 373 |
| University special purpose funds | 4 617 | 13 | 4 | -3 000 | 1 634 |
| Special purpose funds total | 58 834 | 2 383 | 2 619 | -4 332 | 59 504 |

Special purpose funds are used for scholarships to students and employees and for financing the university's operations as required by donors. The funds are grouped by field of study. The funds received return according to the university's investments' annual return.

| 19. UNRESTRICTED FUND | Fund equity 1.1.2018 | Capital transfers during the financial year | Fund usage during the financial year | Fund equity 31.12.2018 |
|------------------------------|---------------------------------|--|---|-----------------------------------|
| Investment Surplus fund | 227 567 | 99 048 | -90 322 | 236 293 |
| Tenure Track fund | 17 500 | 7 500 | -1 120 | 23 880 |
| Total | 245 067 | 106 548 | -91 442 | 260 173 |

| 20. LIABILITIES | Foundation 2018 | Foundation 2017 | Group 2018 | Group 2017 |
|-----------------------------------|------------------------|------------------------|-------------------|-------------------|
| Long-term liabilities | | | | |
| Loans from financial institutions | 298 571 | 262 500 | 306 175 | 271 530 |
| Other long-term liabilities | 8 710 | 11 101 | 8 710 | 11 101 |
| Total | 307 282 | 273 601 | 314 885 | 282 631 |
| Short-term liabilities | | | | |
| Loans from financial institutions | 5 929 | 2 500 | 6 362 | 3 101 |
| Advance payments | 31 582 | 30 323 | 35 616 | 33 855 |
| Accounts payable | 9 283 | 11 976 | 16 891 | 15 116 |
| VAT compensation | 2 046 | 0 | 2 046 | 0 |
| Liabilities to group companies | 55 385 | 55 | 0 | 0 |
| Coordinated assets | 3 461 | 7 909 | 3 461 | 7 909 |
| Other short-term liabilities | 8 191 | 9 325 | 17 658 | 17 926 |
| Accrued salaries and wages | 17 298 | 16 662 | 18 489 | 17 875 |
| Other accrued expenses | 5 270 | 2 504 | 6 929 | 3 781 |
| Total | 138 445 | 81 253 | 107 452 | 99 563 |

OTHER NOTES, €1 000

| 21. LEASE CONTRACTS | Foundation 2018 | Foundation 2017 | Group 2018 | Group 2017 |
|------------------------------------|------------------------|------------------------|-------------------|-------------------|
| Lease payments due within one year | 103 | 241 | 270 | 498 |
| Lease payments due later | 45 | 124 | 228 | 502 |
| Total | 148 | 365 | 498 | 1 000 |

| 22. RENTAL AGREEMENTS (incl. VAT) | Foundation 2018 | Foundation 2017 | Group 2018 | Group 2017 |
|--|------------------------|------------------------|-------------------|-------------------|
| Rental agreement liabilities due within one year | 6 357 | 11 734 | 7 244 | 12 990 |
| Rental agreement liabilities due later | 7 358 | 13 137 | 8 407 | 14 963 |
| Total | 13 715 | 24 871 | 15 651 | 27 952 |

| 23. MANDATORY PROVISIONS | Foundation 2018 | Foundation 2017 | Group 2018 | Group 2017 |
|---|------------------------|------------------------|-------------------|-------------------|
| Provisions for unused rental agreements | 2 065 | 0 | 2 119 | 68 |

| 24. INVESTMENT COMMITMENTS | Foundation 2018 | Foundation 2017 |
|---|------------------------|------------------------|
| Commitment left, €1 000 | | |
| Hamilton Lane Aalto Fund SICAV S.à.r.l, Luxemburg | 186 471 | 145 590 |

Investment commitments are unfunded commitments which are binding under existing agreements.

25. DERIVATIVE CONTRACTS

Group derivatives include interest rate swaps, FX forward exchange agreements and electricity derivatives. Derivatives are not subject to hedge accounting. In principle, the contracts will be held to the maturity. If a derivative contract would be terminated prior to maturity, the university is committed to cover the pre-termination indemnity to the counter party.

The interest rate swaps hedge the loan portfolio against increase in market interest rates by converting floating interest rates into fixed rates. University's current agreements will mature from 2019 to 2027. Some of the agreements have a forward start only after the end of the financial year. Interest rate swaps have been used only for hedging purposes. The terms and conditions of interest rate swap portfolio and the loan portfolio are not identical and therefore derivative contracts are included in the income statement at fair value. In some of the interest rate swaps the nominal amount decreases during the contract period. Also the associated company Helsingin Pohjoinen Hesperiankatu 23A has hedged its loans. The company has reported the derivatives in the notes of its financial statements.

According to the Endowment Strategy the university may employ derivatives in investment activities for three purposes: to hedge investment risks, to allocation adjustments or to gain exposure to certain risk premia more efficiently. During 2018 the forward exchange agreements have been used to hedge against the foreign exchange risk of the investment portfolio.

The university's subsidiary, Aalto University Properties Ltd., which is governing university's properties hedges its electricity purchases against the increase in electricity prices. At the closing date the current electricity derivatives mature from 2019 to 2020.

The nominal and the fair value of the derivative instruments at the closing date are shown below.

| Interest rate swaps | Foundation 2018 | Foundation 2017 | Group 2018 | Group 2017 |
|-------------------------------------|------------------------|------------------------|-------------------|-------------------|
| Nominal value of contracts | 183 381 | 196 664 | 186 631 | 196 664 |
| Fair value of the contracts, €1 000 | -6 147 | -6 314 | -5 896 | -6 314 |
| Forward exchange agreements | | | | |
| Nominal value of contracts | 32 007 | 25 203 | 32 007 | 25 203 |
| Fair value of the contracts, €1000 | 328 | 271 | 328 | 271 |
| Electricity derivatives | | | | |
| Electricity derivatives (MWh) | 0 | 0 | 26 304 | 65 064 |
| Fair value of the contracts | 0 | 0 | 537 | -120 |

| 26. LIABILITIES WITH PROPERTY COLLATERALS | Foundation 2018 | Foundation 2017 | Group 2018 | Group 2017 |
|--|------------------------|------------------------|-------------------|-------------------|
| Bank loans | 0 | 0 | 7 016 | 7 540 |
| Other loans | 0 | 0 | 1 000 | 4 500 |
| Total collateral loans | 0 | 0 | 8 016 | 12 040 |

| 27. LOANS WITH MATURING PERIOD OVER FIVE YEARS | Foundation 2018 | Foundation 2017 | Group 2018 | Group 2017 |
|---|------------------------|------------------------|-------------------|-------------------|
| Bank loans | 179 153 | 153 634 | 183 309 | 161 281 |

28. VAT REFUND LIABILITIES

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

| VAT Refund liability 31 Dec. | Foundation 2018 | Foundation 2017 | Group 2018 | Group 2017 |
|--|------------------------|------------------------|-------------------|-------------------|
| Completed projects (10 year revision period) | 76 | 151 | 48 259 | 24 521 |
| Work in progress | 0 | 0 | 7 435 | 24 859 |
| Total | 76 | 151 | 55 694 | 49 380 |

Total VAT relating to the investments under revision liability

| | | | | |
|--|------------|------------|---------------|---------------|
| Completed projects (10 year revision period) | 756 | 756 | 68 670 | 37 950 |
| Work in progress | 0 | 0 | 7 435 | 24 859 |
| Total | 756 | 756 | 76 105 | 62 809 |

29. VALUES OF FINANCIAL ASSETS AND LIABILITIES BY CATEGORY

| | Foundation 2018 | Foundation 2017 | Group 2018 | Group 2017 |
|------------------------------|-----------------|------------------|----------------|------------------|
| Financial assets | | | | |
| Valued at fair value | | | | |
| Available for sale | | | | |
| Level 1 | 898 224 | 1 024 747 | 902 215 | 1 028 326 |
| Level 2 | 0 | 0 | 0 | 0 |
| Level 3 | 22 687 | 4 410 | 22 687 | 4 410 |
| Total | 920 911 | 1 029 157 | 924 903 | 1 032 736 |
| Derivates | | | | |
| Level 1 | 0 | 0 | 0 | 0 |
| Level 2 | 328 | 271 | 865 | 321 |
| Level 3 | 0 | 0 | 0 | 0 |
| Total | 328 | 271 | 865 | 321 |
| Financial liabilities | | | | |
| Valued at fair value | | | | |
| Derivates | | | | |
| Level 1 | 0 | 0 | 0 | 0 |
| Level 2 | 6 147 | 6 314 | 6 147 | 6 484 |
| Total | 6 147 | 6 314 | 6 147 | 6 484 |
| At amortized cost | | | | |
| Bank loans | | | | |
| Level 1 | 0 | 0 | 0 | 0 |
| Level 2 | 304 500 | 265 000 | 312 537 | 274 631 |
| Total | 304 500 | 265 000 | 312 537 | 274 631 |

30. FINANCIAL RISK MANAGEMENT

Risk management forms an essential part of Aalto University's governance system and supports the university in achieving its strategic and operational objectives. Aalto University risk management principles, including risk management process and responsibilities, are defined in Aalto University Risk Management Policy approved by the board. In addition, financial risk management principles and limits are guided by Endowment Authorizations and Risk Limits Policy and Treasury Policy approved by the board.

Price risk

The main price risk of the university consists of market price volatility related to equity fund investments.

The financial impact to the endowment portfolio of a possible decline of 20% in global equity market prices is described below (all other factors remaining unchanged). The effect of market sensitivity of the equity investments is also taken into account.

| | 2018 |
|-----------------------|-----------------------|
| | Equity markets |
| | -20% |
| Impact on the surplus | -104 290 |
| Impact on the equity | 0 |
| Total impact | -104 290 |

Currency risk

The main currency risk of the university relates to investments in equity funds investing in non-euro assets.

The financial impact to the endowment portfolio of a possible 10% appreciation of euro against all other currencies is described below. In the calculation the currency positions of the underlying investments as well as possible currency hedges have been taken into account.

| | 2018 |
|-----------------------|------------------------------------|
| | EUR appreciation |
| | versus all other currencies |
| | 10% |
| Impact on the surplus | -54 113 |
| Impact on the equity | 0 |
| Total impact | -54 113 |

Interest rate risk

The university carries interest rate risk as part of its investment and debt activities. In investment activities interest rate risk is defined as market value change due to changes in the level of interest rates. Such changes affect fixed income securities inversely and are managed by changing investment portfolio durations. In debt activities the interest rate risk is due to changes in interest rates of floating rate loans taken out to finance campus investments. The risks related to floating rate loans are managed by interest rate swaps. The financial impact of possible changes in interest rates described below.

| | Interest -1% | Interest +1% |
|-----------------------------------|--------------|---------------|
| Investment activities | | |
| Impact on surplus | 9 839 | -9 839 |
| Impact on equity | 0 | 0 |
| Floating rate loans | | |
| Impact on interest costs (annual) | 288 | -1 737 |
| Interest rate swaps | | |
| Impact on interest costs (annual) | -1 036 | 1 036 |
| Impact on change in market value | -6 935 | 6 935 |
| Total | 2 156 | -3 605 |

Liquidity risk

The university liquidity risks are limited, as the investments are mainly implemented thru mutual funds and ETFs. Future contractual commitments relating to financial instruments are described below.

| Contractual commitments | Total | 1 year | 2-5 years | 6-10 years | Over 10 years |
|-------------------------------|----------------|---------------|----------------|---------------|----------------|
| Investment commitments | 186 471 | 26 000 | 133 500 | 24 871 | 2 100 |
| Loans (capital and interests) | 316 044 | 7 122 | 128 107 | 74 033 | 106 781 |
| Leasing | 498 | 270 | 228 | 0 | 0 |
| Accounts payable | 16 891 | 16 891 | 0 | 0 | 0 |
| Total | 519 904 | 50 283 | 261 835 | 98 904 | 108 881 |

Commitments related to derivatives (net)

| | | | | | |
|-------------------------|---------------|--------------|--------------|--------------|----------|
| Interest rate swaps | 10 869 | 2 396 | 6 040 | 2 433 | 0 |
| Currency derivatives | 264 | 264 | 0 | 0 | 0 |
| Electricity derivatives | 536 | 394 | 142 | 0 | 0 |
| Total | 11 669 | 3 054 | 6 182 | 2 433 | 0 |

Commitments of group companies included in Contractual and derivative related commitments

Credit risk

The university receivables credit risks are limited, as its main funders are public institutions, like Academy of Finland, Business Finland and EU. The impact of possible credits risks related to investment activities are to large extent included in the previous risk categories, mainly in interest rate and price risks. Counter party risks related to investment activities are monitored constantly, based on the counter party limits defined by the board. In derivative contracts the counter party risk is managed by cash collateral based on fair value.

Political risk

Political decisions and events may have a significant impact on the university's financial standing. The university's main political risk relates to the university sector's public funding development in the long term. There are also risks relating to the fund allocation between universities. Below table shows the financial impact, if Aalto University's share of Ministry of Education and Culture's university funding would change one percentage point (all other factors remaining unchanged).

| | -1% | +1% |
|-------------------|----------------|---------------|
| Impact on surplus | -15 991 | 15 991 |
| Impact on equity | 0 | 0 |
| Total | -15 991 | 15 991 |

31. LEGAL PROCEEDINGS AND OTHER COMPENSATION CLAIMS

The foundation had five dispute matters in process on 31.12.2018. Total estimated risk relating to these disputes is €300 000.

32. OTHER CONTINGENT LIABILITIES

Covenants

Aalto University campus development investments are financed by loans taken by Aalto University Foundation. The loan agreements are unsecured and contain different types of restrictive terms. These terms restrict, inter alia, organizational changes and property investment arrangements as well as the level of group indebtedness and provided security. Aalto University also has an undrawn loan facility available. The facility will expire unless disbursed.

Share of mortgage

The Foundation owns a 27% share of Asunto Oy Helsingin Eteläinen Hesperiankatu 4 housing company, which entitles to the use of 7 apartments. The housing company's mortgage relating to these 7 apartments is €1,7 million (€1,8 million).

| 33. AUDITOR FEES | Foundation 2018 | Foundation 2017 | Group 2018 | Group 2017 |
|-------------------|-----------------|-----------------|------------|------------|
| Audit fees | 38 | 38 | 141 | 100 |
| Tax advisory fees | 6 | 2 | 14 | 11 |
| Other fees | 77 | 64 | 79 | 76 |
| Total | 121 | 104 | 234 | 188 |

| 34. AVERAGE PERSONNEL | Foundation 2018 | Foundation 2017 | Group 2018 | Group 2017 |
|-----------------------|-----------------|-----------------|--------------|--------------|
| Teaching and research | 2 836 | 2 769 | 2 836 | 2 769 |
| Other personnel | 1 216 | 1 178 | 1 376 | 1 343 |
| Total | 4 052 | 3 947 | 4 212 | 4 112 |

| 35. MANAGEMENT COMPENSATION | Foundation 2018 | Foundation 2017 | Group 2018 | Group 2017 |
|--|-----------------|-----------------|------------|------------|
| Members of boards, the president and CEOs of Group companies | 370 | 341 | 1 305 | 1 244 |

| 36. RELATED PARTY FINANCIAL TRANSACTIONS | Grants and similar payments with no respective input received | Financial activities with respective input received | Expenses | Receivables | Liabilities |
|--|---|---|---------------|----------------|---------------|
| | | Income | | | |
| Founders and their subsidiaries, Aalto University's subsidiaries | 0 | 6 464 | 42 384 | 473 742 | 55 385 |
| Above parties' board members, CEOs and their substitutes, auditors, Aalto University's directors and any companies owned by aforementioned | 0 | 41 | 4 898 | 0 | 27 |
| Family members of the above | 3 | 0 | 195 | 0 | 0 |
| Total | 3 | 6 505 | 47 477 | 473 742 | 55 413 |

| 37. SHARES IN OTHER COMPANIES | Domicile | Shares owned by Foundation | Shares owned by Group | Total equity |
|--|-------------|----------------------------|-----------------------|-----------------------------------|
| Company | | | | |
| Aalto Holding Oy | Helsinki | 100,00 % | 100,00 % | (consolidated to group) |
| Aalto-yliopistokiinteistöt Oy | Espoo | 100,00 % | 100,00 % | (consolidated to group) |
| Koy Bionova | Espoo | 100,00 % | 100,00 % | (consolidated to group) |
| Koy Espoon Amfi | Espoo | 100,00 % | 100,00 % | (consolidated to group) |
| Koy Espoon Betonimiehenkuja 5 | Espoo | 100,00 % | 100,00 % | (consolidated to group) |
| Koy Espoon Kemistintie 1 | Espoo | 100,00 % | 100,00 % | (consolidated to group) |
| Koy Espoon Konemiehentie 2 | Espoo | 100,00 % | 100,00 % | (consolidated to group) |
| Koy Espoon Lämpömiehenkuja 2 | Espoo | 100,00 % | 100,00 % | (consolidated to group) |
| Koy Espoon Lämpömiehenkuja 3 | Espoo | 100,00 % | 100,00 % | (consolidated to group) |
| Koy Espoon Maarintie 6 | Espoo | 100,00 % | 100,00 % | (consolidated to group) |
| Koy Espoon Metallimiehenkuja 10 | Espoo | 100,00 % | 100,00 % | (consolidated to group) |
| Koy Espoon Metallimiehenkuja 4 | Espoo | 100,00 % | 100,00 % | (consolidated to group) |
| Koy Espoon Otakaari 1 | Espoo | 100,00 % | 100,00 % | (consolidated to group) |
| Koy Espoon Otakaari 24 | Espoo | 100,00 % | 100,00 % | (consolidated to group) |
| Koy Espoon Otakaari 3 | Espoo | 100,00 % | 100,00 % | (consolidated to group) |
| Koy Espoon Otakaari 5 | Espoo | 100,00 % | 100,00 % | (consolidated to group) |
| Koy Espoon Otakaari 7 | Espoo | 100,00 % | 100,00 % | (consolidated to group) |
| Koy Espoon Puumiehenkuja 2 | Espoo | 100,00 % | 100,00 % | (consolidated to group) |
| Koy Espoon Sähkömiehentie 4 | Espoo | 100,00 % | 100,00 % | (consolidated to group) |
| Koy Espoon Tekniikantie 3 | Espoo | 100,00 % | 100,00 % | (consolidated to group) |
| Koy Espoon Tietotie 1 | Espoo | 100,00 % | 100,00 % | (consolidated to group) |
| Koy Espoon Vuorimiehentie 1 | Espoo | 100,00 % | 100,00 % | (consolidated to group) |
| Koy Espoon Vuorimiehentie 2 | Espoo | 100,00 % | 100,00 % | (consolidated to group) |
| Koy Espoon Väre | Espoo | 100,00 % | 100,00 % | (consolidated to group) |
| Koy Helsingin Runeberginkatu 14-16 | Helsinki | 100,00 % | 100,00 % | (consolidated to group) |
| Koy Kirkkonummen Metsähovintie 114 | Kirkkonummi | 100,00 % | 100,00 % | (consolidated to group) |
| Otaniemen Liikekeskus Oy | Espoo | 100,00 % | 100,00 % | (consolidated to group) |
| Hamilton Lane Aalto Fund SICAV S.à.r.l | Luxemburg | 98,95 % | 98,95 % | (consolidated to group as a fund) |
| 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 % | (not consolidated to group) |
| Asunto Oy Kartanontanhua | Espoo | 31,45 % | 31,45 % | (not consolidated to group) |



Aalto University

Aalto University
PO Box 11000
FI-00076 AALTO
Tel. +358 9 47001