



2022 annual board report and financial statements

A!
Aalto University



Photo: Jaakko Kahilaniemi

ANNUAL BOARD REPORT 2022

6 AALTO UNIVERSITY

Activities during 2022
The role of Aalto University

10 SHAPING A SUSTAINABLE FUTURE

Driving research excellence
Future-led learning
Inspiring ecosystem

28 ENABLING OUR SUCCESS

Community & people
Infrastructures & campus
Services & financial resources

FINANCIAL STATEMENTS 2022

46 FINANCIAL STATEMENTS 2022

Annual board report 2022

ACTIVITIES DURING 2022

OUR OPERATIONS ARE BASED ON HIGH-QUALITY RESEARCH, EDUCATION, IMPACT AND OUR SHARED VALUES: RESPONSIBILITY, COURAGE AND COLLABORATION. THE PURPOSE OF THE UNIVERSITY IS TO SHAPE A SUSTAINABLE FUTURE.

With its strategy, which entered into force at the start of 2021, Aalto University has set its sights firmly towards a sustainable future. The high-quality research, artistic activities and education at Aalto University and their impact, as well as our shared values of responsibility, courage and collaboration, provide a firm basis for our strategy. Radical creativity and an entrepreneurial mindset will encourage the entire community to produce effective solutions for sustainable development.

The high quality of our research, artistic activities and education have made us an internationally recognised player.

In both national and international comparisons, the high scientific impact of Aalto University's research stands out. The Academy of Finland published its 'State of scientific research in Finland' evaluation in the summer of 2022. According to the top 10 index, which describes the percentage of the most frequently cited 10% of scientific publications, all of Aalto University's key research areas were ranked first or second among Finnish universities on the basis of the impact of their publications. When the Scopus database is used as the information source, the top 10 index of Aalto University is

1.50, whereas the average for all Finnish universities is 1.24 and for world universities as a whole 1.00. Thus, the number of citations of our scientific publications is well above the global average. Aalto University also stands out in the field of art and design, in which the university is world famous and where our alumni and students have achieved international success.

There is strong demand for experts in the fields represented by Aalto University. The number of applicants has increased, and the employment rate of our graduates is extremely high. To meet national needs in expertise, the university has pledged to take more responsibility for increasing degree education in its own fields. Aalto University educates game changers who graduate with the tools and abilities to shape a sustainable future, both nationally and internationally.

Systematic and extensive collaboration with our key stakeholders, strategic partners and actors in the higher education sector will strengthen our impact. In the agreement period 2021–2024, Aalto University will play a key role in promoting different sectors of the internationalisation programme of the Ministry of Education and Culture. Aalto University is also the university in charge of the Digivisio 2030 project to develop a digital service environment for Finnish higher education institutions.

The genuinely multidisciplinary Aalto community, which generates new thinking, is our most important resource and factor for success.

The wellbeing of the personnel and students, the joy of learning and the principle of continuous development have been defined as the university's joint priorities for 2022, guiding the activities of the Aalto community. Processes relevant to the wellbeing of personnel and students were improved based on wellbeing surveys. Cooperation and a user-driven approach played a key role in the development of our practices and culture of teaching and learning.

The development and building of a sustainable and vibrant campus continued in 2022. During the year, students and personnel returned to campus to study, and work and interaction has strengthened the community spirit. The practices of flexible and multilocal work are becoming well-established. In addition to the construction of the campus, the university has also invested in the development of infrastructure and services. The comprehensive digitalisation project and the accompanying reform of the IT system have made progress, and improved

information management has facilitated the development of Aalto University's services and supported data-driven management.

The strong commitment of Aalto University's extensive partner network to the university's societally significant objectives was reflected in the donations received totalling EUR 11 million in 2022. In the two-year government matching funding campaign between 2020 and 2022, Aalto University received EUR 7.4 million in donations targeted to the university in general or to fields of education at the university meeting the terms and conditions set for the campaign. After the end of the campaign, the government capitalised universities in proportion to the donations received. Aalto University received EUR 7.1 million in matching funding. Alongside the matching funding campaign, Aalto University continued its long-term fundraising, and other donation options were also available. About 30% of the donations received during the campaign period were targeted to the matching funding campaign, and 70% to other donation targets. Donation income helps to diversify Aalto University's funding base and will thus ensure our success and impact in the short and long term. Government matching funding will boost the long-term impact of the donations.

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 FIELDS CLOSELY RELATED TO THEM.

The mission of the university and the purpose of its activities are to promote free research and scientific and artistic education, to provide higher education based on research and to educate students to serve Finland and humanity at large. In carrying out its mission, the university promotes life-long learning, interacts with the surrounding society, and promotes the societal impact of its research findings and artistic activities.

The national mission of the university is to promote Finland's success and to make a positive impact on Finnish society, its economy, technology, art, design, internationalisation and competitiveness, and to 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, follows the principles of good administration and safeguards academic autonomy and the independence of the professoriate intrinsic to it, which are prerequisites for freedom of education, research and art.



The Aalto University Foundation sr operates as Aalto University. The operations of a foundation university are governed by the Universities Act (Yliopistolaki 558/2009), the Foundations Act (Säätiölaki 487/2015) and the Aalto University Foundation Constitution. Photo: Mikko Raskinen

Shaping a sustainable future



Photo: Mikko Raskinen

DRIVING RESEARCH EXCELLENCE

WE EXCEL AND MAKE BREAKTHROUGHS IN AND ACROSS SCIENCE, ART, TECHNOLOGY AND BUSINESS.

RESEARCH

Aalto University is characterised by high scientific research standards. The tenure track system attracts international top talent, facilitating the setting of research priorities and the continuous improvement of our scientific standards. At the end of 2022, Aalto University had a total of 404 tenure-track professors. Several experienced professors will retire over the

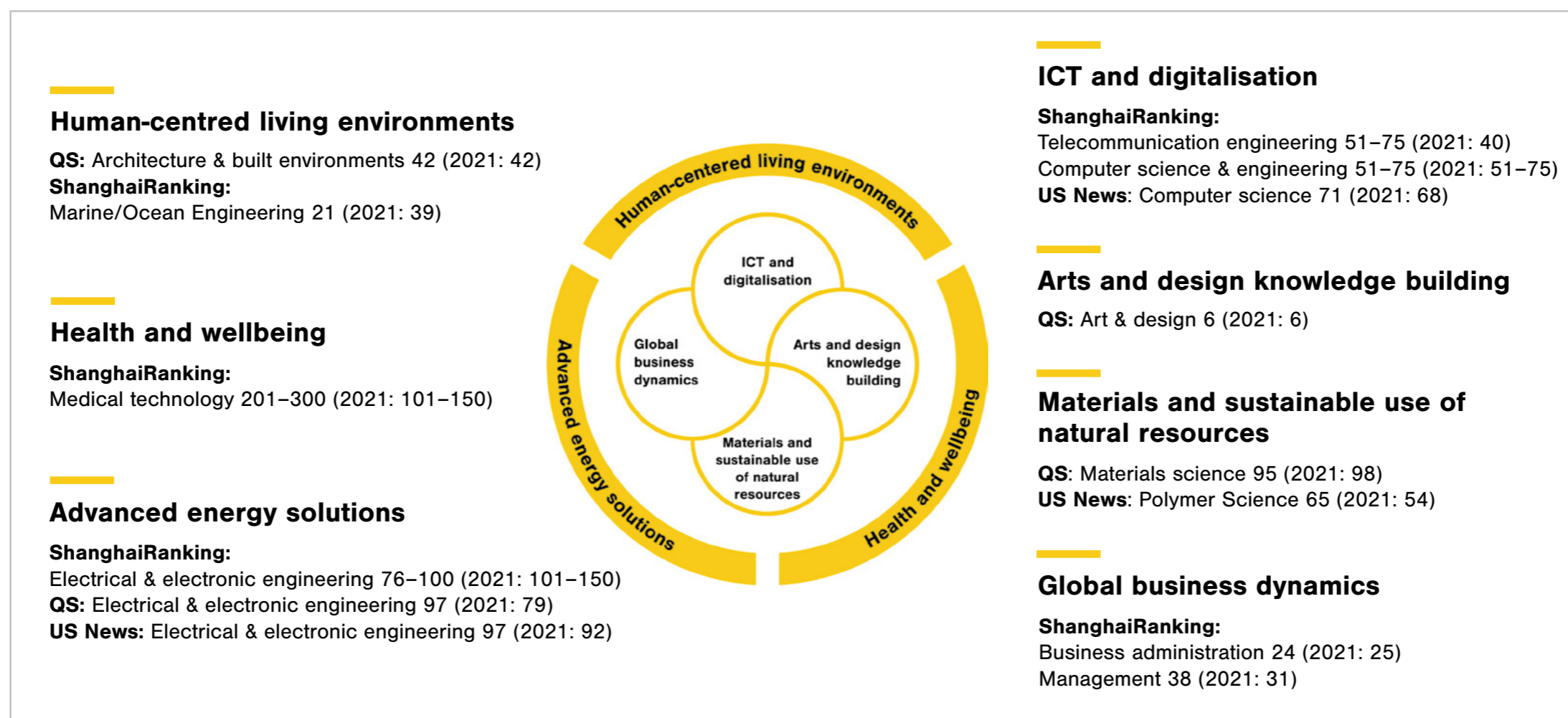
next few years, which means that the renewal of the university's professoriate is continuing at a vigorous pace.

According to the most important international rankings, Aalto University is already among the world's leading universities in its key research areas. Aalto University has done well in general rankings, in which universities are evaluated from an overall perspective. In

2022, Aalto University reached 37th place in the rankings for universities under the age of 50 (Young University Rankings of Times Higher Education). Times Higher Education also ranked Aalto University as the 47th most international university of the world.

An improvement in the quality of research is also reflected in performance indicators. In 2022, Aalto's contribution to the

most cited top 10% publications totalled 1 625 (1 577). Top 10% publications accounted for 15.4% (15.7%) of all publications from Aalto University. In total, the university published 2455 (2 524) international refereed articles in scientific journals. Aalto University collected 6 019 (6 429) JUFO points with its scientific publications. The average JUFO score remained at the previous year's level, which was 1.7 (1.7). Aalto University received a total



The strengthening of the academic quality and impact in Aalto University's key areas is also reflected in the results of international higher education rankings. The figure shows some of the ranking results for 2022.

Figures in parenthesis refer to 2021 unless otherwise mentioned.

of EUR 100 million (EUR 99 million) in competitive research funding, of which about EUR 22 million (EUR 22 million) was international funding.

The Academy of Finland grants Finnish universities profiling funding every second year to strengthen their research basis. The aim is to support universities in rapidly strengthening their strategic profiles to enhance the quality of their research. Aalto University received EUR 18.9 million of the EUR 100 million allocated for the funding period 2023–2028, which was the second largest sum granted to any Finnish university. The

funding provided by the Academy of Finland will boost research on quantum technology, hydrogen and wind energy, as well as new materials.

Aalto University also did well in the 2022 application rounds for the Academy of Finland's flagship programme, in which six flagships received funding for a second period. Aalto University is coordinating two of the flagships, the Competence Centre for the Materials Bioeconomy (FinnCERES) and the Finnish Centre for Artificial Intelligence (FCAI), and also takes part in flagship Photonics Research and Innovation (PREIN). These three

flagships received more than EUR 6.8 million in funding for the period 1 September 2022–31 December 2024. The Academy of Finland's flagship programme supports high-quality research and develops future expertise for sustainable solutions to the challenges facing society. The programme also promotes economic growth by developing new business opportunities.

The Academy of Finland has granted more than EUR 11 million in funding for the development of Aalto University's key research infrastructures. Five of these infrastructures are listed on the national road

map of strategically significant research infrastructures for the period 2021–2024. They promote the fabrication of micro and nanostructures, quantum and high-performance computing, research on and testing of future wireless networks, biomedical imaging, and linguistics and language resources. The three other research infrastructures funded by the Academy of Finland promote arctic research, research and knowledge of aquatic environments and open spatial information systems. The research infrastructures of Aalto University constitute the foundation of long-term research.



Aalto University Professor Jukka Tuhkuri carried out a research expedition to Antarctica in the spring of 2022. During the expedition, he studied the effects of climate change on sea ice and how those affect the ice loads ships will face. The expedition confirmed the results of ice fracture tests carried out at the Aalto Ice and Wave Tank. Picture: Jukka Tuhkuri

Figures in parenthesis refer to 2021 unless otherwise mentioned.

In 2022, Aalto University had seven (three) Finnish Centres of Excellence in research funded by the Academy of Finland. Three were selected for the funding period 2018–2025 and four for the funding period 2022–2029. Aalto University leads three Centres of Excellence: Quantum Technology (QTF), High-Speed Electromechanical Energy Conversion Systems (HIECS) and Life-Inspired Hybrid Materials (LIBER). Aalto University's research groups also participate as partners in four Centres of Excellence: Randomness and Structures (FiRST), Virtual Laboratory for Molecular Level Atmospheric Transformations (VILMA), Inverse Modelling and Imaging, and Research of Sustainable Space.

The high quality and impact of Aalto's research is also reflected by the many prestigious international awards received by our academic faculty and their appointments to posts in top scientific organisations. For example, in 2022 Professor Mikko Möttönen received an Advanced Grant awarded by the European Research Council (ERC) totalling EUR 2.5 million.

The competitive research funding granted by the Academy of Finland for Academy research fellows and postdoctoral researchers totalled EUR 7.3 million, providing support for six new academy research fellows and 14 postdoctoral researchers.

The quality of the research conducted at Aalto University is also reflected in the fact that we have 27 (28) recipients of research grants from the European Research Council (ERC), one (two) Academy Professor and 48 (49) Academy Research Fellows. Two (two) persons holding the honorary title of Academician of Science worked at Aalto University in 2022.

The Aalto University Bioinnovation Center, established with the support of the Jane and Aatos Erkko Foundation, has started operations and its opening was celebrated on 1 June 2022. The Bioinnovation Center is a multidisciplinary research and learning centre aimed at speeding up the transition to a circular economy and bioeconomy, as well as creating opportunities for sustainable economic growth in Finland. The multidisciplinary doctoral programme seeks answers to these challenges from the perspectives of technology, design and business.

Aalto University continues to develop its international cooperation with universities and research networks. In 2022, new types of key partnership cooperation were piloted, allowing Aalto University to deepen its cooperation with selected partners and diversify and expand the group of experts involved in a partnership. The extensive internationalisation review produced in autumn 2022, 'International Connections of Aalto', provided an overall picture of the dimensions of Aalto University's international activities. The review concluded that the internationalisation of Aalto University has already advanced. Development priorities and potential risks were identified based on the review.

The development of the internationalisation programme networks of the Ministry of Education and Culture (EDUCase Platform, FARIA and FICORE) coordinated by Aalto University continued at a vigorous pace, and the focus shifted from the creation of a national network to the building of international cooperation. The networks coordinated by Aalto University work closely with other networks in the programme, which has served as a basis for joint initiatives by Finnish actors and has provided higher visibility and stronger cooperation with partners and stakeholders in the target areas.

We support open science and are strengthening our open research culture.

Open science promotes interdisciplinary research, ensures global and equal access to research information, speeds up the creation of new inventions and enhances the quality of science by enabling the verification of research results. An open research culture encourages the spread of open publishing and learning, data management and responsible evaluation practices. Aalto University actively promotes and supports open science based on the principle 'As open as possible, as closed as necessary'.

All refereed scientific articles and conference publications are entered into the ACRIS research information system, which serves as the platform for open publications. In 2022, open publications accounted for 85% (82%) of all refereed scientific publications from Aalto University. The ACRIS system contains about 1 000 open-access datasets generated by our research.

Open access is made possible by agreements between organisation and publishers, as well as by publishing

without author's fees (diamond publishing) and parallel publishing. Together, these promote scientific openness. Aalto University offers its community a wide range of different tools for managing research data: training, services, instructions and support.

ARTISTIC ACTIVITIES

The artistic activities of Aalto University are of high quality and are held in high regard internationally. Aalto University ranked sixth in the world in art and design in the 2022 QS World University Ranking. With the re-opening of campus after two years of the COVID-19 pandemic, a broad range of different artistic events and other gatherings have once again been organised. Several successful exhibitions were held on campus and with partners. Virtual gallery activities have also continued. In 2022, a total of 348 (315) results of artistic activities were recorded, and 132 (114) of them were international results of artistic activities.

The results of the cooperation between Aalto University and the Helsinki Design Week were displayed at the Designs for a Cooler Planet events on the Otaniemi campus in September and October 2022. 'Life 1.5' was the theme of the exhibitions and

events. '1.5' refers to lifestyles and concrete, research-based actions that help to achieve the 1.5 degree target set in the Paris Agreement. Designs for a Cooler Planet combines research and artistic activities with radical creativity and sustainable development, both cross-cutting approaches of Aalto University. Designs for a Cooler Planet was also a side event of the World Circular Economy Forum (WCEF2022).

The film sector at Aalto has grown stronger. The film 'Ruthless Times – Songs of Care', directed by Professor Susanna Helke, was the key event of the year 2022. It received the Locarno Zonta Club Award in the Locarno Film Festival Critics' Week section. The prize is awarded to a film conveying a particularly strong societal message. The Locarno Film Festival is one of the most important film events in the world. The 'We've been seen!' cycle of short films made by filmmakers of today and tomorrow was shown in Oodi Central Library in Helsinki and in the summer at the SuomiAreena event in Pori.

Fashion education has featured prominently in Finland and internationally in recent years. In 2022, fashion education at Aalto University was rated sixth in the global rankings of the online

CEO World Magazine. Members of the Aalto community were once again successful at the Hyères Festival in France in 2022. The competition was won by Jenni Hytönen, a 2021 fashion graduate. Master's degree student Sini Saavala and Juha Vehmaanperä, who graduated in autumn, also reached the finals. Vehmaanperä also won the Young Designer of the Year prize.

The wooden building Little Finlandia was opened to the public in March 2022. It began as a student project at the Aalto University Department of Architecture. The building is fully movable and convertible and will serve as the reserve location for Finlandia Hall until 2025. Little Finlandia was the public's favourite in the Puupalkinto competition.

In January 2022, Aalto University announced two public art competitions to garner proposals for works in the facilities of the Aalto University Works block, which is now under construction. The competition was won by Pasi Rauhala with his light work 'Mycelium of the Future', which visualises data and extends around the building, and Teija and Pekka Isorätyä with their kinetic light sculpture 'Love Gear'.

Figures in parenthesis refer to 2021 unless otherwise mentioned.

FUTURE-LED LEARNING

WE SPARK THE GAME CHANGERS OF TOMORROW.

To meet the national need for experts, Aalto University has pledged to significantly increase degree education in its fields. Aalto University has also invested in the development of lifewide learning. The university has increased student intake in degree education as agreed for the period 2020–2022. The number of bachelor's degree students accepting study places increased by 30%, or 544 study places, between 2019 and 2022.

Aalto University's degree targets were significantly increased in the agreement between the university and the Ministry of Education and Culture for the period 2021–2024. In 2022, the number of bachelor's degrees was 17% (16%), master's degrees 16% (20%) and doctorates 31% (35%) lower than the targets agreed with the ministry for the period. During the year, a total of 1 491 (1 509) students completed a bachelor's degree, 1 925 (1 831) students a master's degree and 193 (182) students a doctorate.

In 2022, there were a total of 19 661 (18 831) degree students at Aalto University. The number of full-time equivalent bachelor's and master's degree students was 13 066 (12 611). The number of international students totalled 4 712 (4 120), of whom 78% (81%) were degree students and 22% (19%) exchange students. Degree students earned a total of 573 628 (558 778) ECTS study credits, equivalent to an average of 34 (35) study credits per active degree student.

There is strong application pressure on the bachelor's degree programmes offered by Aalto University. A total of 25 953 (22 734) applications for bachelor's degree programmes were received in 2022. This is 14% more than in the previous year. Primary applicants accounted for about 68% (70%) of all applicants. Aalto University's English-language bachelor's degree programmes have proved highly popular.

In addition to international students, they also attract Finnish students who accounted for 47% of all students accepting a study place. The two-year master's degree programmes are also popular. A total of 9 015 (8 898) applications to the programmes were received. Most of the applications came from Finland, followed by China and India.



50% (51%) of bachelor's students and 23% (25%) of master's students completed their degree within the target completion time.
Photo: Mikko Raskinen

Figures in parenthesis refer to 2021 unless otherwise mentioned.

The impact of the exceptional arrangements resulting from the COVID-19 pandemic on study ability and wellbeing has made students less able to cope with their studies and less satisfied with their education. The average score given by participants in the Finnish bachelor's graduate survey was 3.78 (3.82). Aalto University has set a minimum average score of 4.1 as a target for 2024. Work to improve the quality of teaching and to promote the wellbeing of the students is expected to be reflected in the results in the coming years. According to the career monitoring survey carried out by the Aarresaari career services network of Finnish universities, Aalto University graduates are satisfied with their degree. The master's graduates responding to the survey felt that their degree is appreciated by the employers, while doctors felt that their position in the labour market improved after they had gotten their degree.

Teaching and learning at Aalto University has been developed based on a new learning strategy focused on future-led learning and emphasising five areas: the development of digital learning and learning environments, multidisciplinary and cross-cutting approaches in teaching, radical wellbeing for the entire learning community, management and development of the education portfolio, and including the priorities of lifewide learning and learning centricity.

We are determined to respond to future challenges and provide future-led education that also creates opportunities for lifewide learning.

In developing the curricula, the aim is to ensure that the learning outcomes and contents of each degree programme, as well as the methods used to evaluate teaching and learning, constitute an integrated and predictable entity and that students graduate within the target time. The degree programme portfolio, the degree programmes and the study options are updated on a regular basis to ensure smooth progress in studies and a high quality of teaching even as the number of students is increasing. In 2022, Aalto University promoted the integration of multidisciplinary, sustainable development, entrepreneurial competence, an entrepreneurial mindset and radical creativity into teaching contents. Students are encouraged to include courses from outside their own field in their studies and to participate in multidisciplinary courses or study modules.

Aalto University offers a wide range of master's degree programmes, minor subject

programmes and freely available online courses focusing on sustainable development or related themes. As a result of the Climate University cooperation, a total of 14 open online courses on circular economy, sustainability and climate change have already been published in English or Finnish. The Aalto Ventures Program (AVP) supports the learning of key entrepreneurial skills, helping students develop new businesses. The Starting Up course, which is open to everyone, covers the fundamentals of startup entrepreneurship, offering tools and basic information to an expanding audience. Multidisciplinary teaching based on research and artistic activities, as well as creative practices, is increasingly available to all Aalto University students at different degree levels.

The aim of Aalto University is to build an inclusive community where all community members feel a sense of belonging and can fulfil their professional and educational aspirations on an equal basis. The university and the student union have actively cooperated to enhance the wellbeing of students. Wellbeing and the ability to study are also supported by making low-threshold support services available online. Multiprofessional support, such as study guidance, health services and services of study psychologists and university

chaplains, are available under the Starting Point of Wellbeing umbrella. Efforts have been made to reduce the loneliness experienced by students by promoting attachment to the university community and the establishment of peer contacts.

In 2022, Aalto University developed and expanded its lifewide learning offerings. They include parts of degrees and competence development courses and programmes, as well as combinations thereof. This provides a basis for offering tailored contents based on Aalto University research to various user groups.

At Aalto University, lifewide learning is mainly provided by the following organisations: Aalto University Junior, Aalto University Summer School, Open University, FITech, Aalto ACCESS and Aalto University Executive Education (Aalto EE), which provides management and continuing education. For many years, Financial Times has placed Aalto EE among the top 1% of the world's business management education providers.

Aalto University is participating in the national Digivisio 2030 project's pilot, launched in October 2022. The aim of the pilot is to develop offerings for non-formal flexible learning. These include non-degree education provided as courses, webinars and podcasts.

Figures in parenthesis refer to 2021 unless otherwise mentioned.

INSPIRING ECOSYSTEM

WE RENEW SOCIETY WITH RESEARCH-BASED KNOWLEDGE, CREATIVITY AND ENTREPRENEURIAL MINDSET. WE GENERATE INNOVATIVE SOLUTIONS TO TACKLE GLOBAL GRAND CHALLENGES.

A world-class innovation and entrepreneurship ecosystem has grown around Aalto University, which has already been highlighted as a model of the role that universities can play in pioneering a regional innovation ecosystem. A Grid, one of Europe's largest startup centres, operates out of Aalto University's premises in Otaniemi. It already provides a home to 150 startup companies and communities.

Student-driven entrepreneurship activities are also an important part of our entrepreneurship ecosystem. They provide the basis for numerous startups and a wide range of cross-disciplinary innovations and new openings each year. Examples of student-driven entrepreneurship activities at Aalto University include the Aalto Entrepreneur Society (Aaltoes), the largest student-driven entrepreneurship community in Europe; Kiuas, Finland's leading business accelerator; and Slush, which has grown into one of the world's leading startup events.

At Slush 2022, Aalto University presented solutions promoting efficiency, sustainability, wellbeing and design. A total of 13 research-based startups from the university were present, and all of them contribute to the achievement of the sustainable development goals through their work. The startups offered solutions to challenges such

as the cleaning of waterways, boosting energy efficiency and responsible textile production.

Junction, Europe's leading hackathon community, held its main event in Dipoli on Aalto's campus in November 2022. The event attracted about 1 300 participants.

The innovation process is an essential part of the mechanism through which research has

a societal impact. Patenting enhances the usability of an invention, and ultimately the technology can be transferred to an existing company or to a new company built around the innovation. In 2022, Aalto University processed 116 (121) innovation proposals, filed 53 (54) patent applications (priority patent applications) and carried out 23 (18) transfers of technology or competence to businesses. The income

relating to technology transfers totalled EUR 1.6 million (EUR 7.7 million). This includes income relating to intellectual property rights commercialisation, technology transfers and valuation increases. On the list of Finnish companies with the highest number of patent applications kept by the Finnish Patent and Registration Office, Aalto University was in third place in 2022.



Aalto University aims to increase its societal impact by bringing together national and international actors. Photo: Kristian Presnal

Figures in parenthesis refer to 2021 unless otherwise mentioned.

Aalto University plays a globally recognised role as a promoter of entrepreneurship. According to a recent comparison by UBI Global, Aalto Startup Center is one of the world's best business accelerators operating as part of a university. A customer-oriented approach, the local ecosystem and general attractiveness were listed as strengths of the Startup Center.

Cooperation with companies ensures that the changing capabilities needed in working life can be developed as part of teaching and that, at the same time, Aalto University's teaching resources and competence can be harnessed to support the development of working life. Aalto University encourages all members of its community to adopt an entrepreneurial mindset. The From Lab to Market events of 2022 inspired researchers to consider matters such as how to attract investors to a startup company.

Business partnerships provide Aalto University with useful information on the competence and innovation needs of business life, and in this way they also enhance the societal impact of our research and education. Aalto University is engaged in systematic collaboration with more than 500 companies. In 2022, the corporate collaboration value, or income from companies, totalled EUR 17 million (EUR 16 million).

Collaboration enhances the quality and impact of Aalto University's academic activities.

A strategic business partnership means a long-term commitment to collaboration between Aalto University and a company, with the aim to work together to find solutions for a more sustainable future. Such long-term cooperation provides a basis for scientific breakthroughs and new innovations. ABB, Neste, Nokia and Saab are our current strategic business partners.

Cooperation with ABB deepened as ABB Marine donated six Hardware-in-the-Loop simulators for the use of Aalto University students and researchers. The simulators are used to test renewable energy sources, such as solar PV, fuel cells and wind turbines, and their integration into green hydrogen production. Several professors and postdoctoral researchers from different schools, as well as doctoral and master's students, are involved in the research cooperation with Neste, which focuses on renewable products, low-carbon solutions and the circular economy. The doctoral programme collaboration focusing on device

development for future mobile communication systems and quantum technology have been launched with Nokia. The first doctoral students were recruited at the end of 2022. So far, ten dissertation-level research projects have been launched in cooperation with Saab. They have already produced dozens of scientific publications, and several doctors of technology have already graduated from the joint doctoral programme. In addition to their partnership with Aalto University, our strategic business partners are also important employers of our alumni and students.

Aalto University's strategic partners also include public sector actors, such as universities, research institutes and international innovation networks. The European Institute of Innovation and Technology (EIT) has become the largest grouping of innovation communities in Europe, and Aalto University is involved in six of its eight Knowledge and Innovation Communities (KIC).

Aalto University and eight other top-ranking European universities form the Unite! university alliance. The purpose of Unite! is to build a new European university model based on joint degree programmes, virtual and

physical mobility, innovative pedagogical methods and harmonised governance models. The second stage of the alliance was launched in November 2022 when, after the completion of the pilot phase, the European Commission granted funding for Unite! for the next four years. In connection with this, Aalto University President Ilkka Niemelä also became Vice President of the Unite! alliance.

Aalto University is engaged in effective cooperation with higher education institutions, research institutes and municipalities in Helsinki Metropolitan Area. The cities of Helsinki and Espoo are Aalto University's strategic partners. Aalto University Professor Rebecca Piekkari was elected as the Espoo Ambassador 2022. As the Espoo Ambassador, Rebecca Piekkari represents Espoo-based scientific excellence when travelling around the world and encourages Espoo-based scientists to participate in the activities of academic organisations and the organisation of congresses.

The 100 000 Aalto University alumni are present in all areas of society, and many of them hold key positions in Finnish and international companies and communities. They are particularly well represented among company founders, owners and board members.

Figures in parenthesis refer to 2021 unless otherwise mentioned.

Enabling our success



Photo: Mika Huisman

COMMUNITY & PEOPLE

DEVELOPING OUR CULTURE OF INCLUSION, CURIOSITY, COLLABORATION AND WELLBEING AS OUR COMPETITIVE EDGE.

COMMUNITY

The culture of the Aalto community is founded on shared values, a shared way of working and common ethical principles (our Code of Conduct). The way of working is guided by our shared values: responsibility, courage and collaboration. Our Code of Conduct, the 'rules of fair play' of the university community, describe what adhering to the values means in practice. An online course on ethical principles was published in 2022 and was compulsory for all university personnel.

Equality, diversity and inclusion support the wellbeing and creativity of the community and its ability to promote world-class research, teaching and impact. In its equality, diversity and inclusion (EDI) plan, the Aalto community pledges to build its EDI capabilities, foster inclusive learning experiences, develop equal people processes and practices, strengthen a data-driven operating model and promote accessibility and barrier-free environments. The monthly EDI discussions held in 2022 and chaired by experts brought together Aalto University personnel to exchange views on selected topics.

Issues related to the wellbeing of the Aalto community were highlighted in many areas during 2022. The Keys to Your Wellbeing series of the Oasis of Radical Wellbeing project produced a broad range of material for members of our community. The Wellbeing Desk, launched in 2022, provides Aalto University personnel with advice and guidance in matters related to wellbeing at work and work ability. The activities of the Starting Point of Wellbeing, which focuses on the wellbeing of students, also continued.

The instructions and practices for flexible and multilocational work were updated in 2022. In addition to working on the university campus, personnel can also work on a remote basis if permitted by their tasks. Under the Aalto University's team charter, teams are encouraged to have internal discussions on the team's purpose, objectives and common operating methods, as well as on members' responsibilities and roles. Support is offered for personnel to develop both remote working skills and digital competence.

Aalto University is an active member of sustainable development university networks at both the national and international level. Aalto University is committed to

the joint theses of sustainable development and responsibility adopted by Universities Finland UNIFI. Aalto University has signed the international SDG Accord of universities to promote UN Sustainable Goals.

PERSONNEL

The university had 4 751 (4 651) personnel at the end of 2022. A total of 59% (60%) of the personnel were employed in teaching and research positions, 11% (12%) were degree students working as teaching and research assistants and 29% (28%) belonged to other personnel groups. In total, 25% (25%) of the personnel were doctoral students.

A total of 38% (37%) of the personnel held a permanent employment contract, and 84% (84%) worked full-time. Women accounted for 41% (40%) of the personnel. A total of 13% (15%) of the personnel will reach the age of at least 65 within the next ten years. The share of non-Finnish personnel was 34% (33%), reflecting the strong international focus of the university.

Significant investments in professorships connected to the tenure track system continued in 2022. At the end of 2022, the university had 404 (395) professors, of whom

320 (296) had been appointed since the establishment of Aalto University. A total of 84 (99) of the professors had been appointed before the year 2010. Women accounted for 24% (22%) of the professors. International professors accounted for 27% (27%) of the total. A total of 28% (35%) of the professors will reach the age of at least 65 within the next ten years.

Aalto University invites persons who have made distinguished contributions to business, industry or society and who have a strong academic or artistic background to serve as professors of practice. Professors of practice, who mostly work part time, make their expertise available to the university and diversify its teaching offerings. At the end of 2022, Aalto University had 48 (51) professors of practice.

The lecturer career system was updated at the end of 2020, and the first principal university lecturers under the new career system were appointed in 2022. The principles and evaluation criteria of the lecturer career system support individual development and career advancement with teaching-focused merits. At the end of 2022, Aalto University had a total of 237 (239) lecturers appointed through the lecturer career system.

Figures in parenthesis refer to 2021 unless otherwise mentioned.

In 2022, the average number of personnel employed by the Aalto University Group was 4 873 (4 796). The University Group's personnel expenses totalled EUR 273 million (EUR 272 million), of which the university accounted for EUR 261 million (EUR 260 million). Salaries and other compensations paid to the members of the board, the president, and the members of the boards of Aalto University Group companies and their CEOs totalled EUR 0.7 million (EUR 1.2 million).

GOVERNANCE

The main governing bodies of Aalto University are the board, the president, the provost, the vice presidents, the Academic Affairs Committee, the deans of the university's schools, the vice-deans and the schools' academic affairs committees.

The board comprises seven external members, including the chair and vice chair. The board decides on the strategy of the university, matters concerning university operations and finances and on other far-reaching plans. The board also ensures that the university's activities are organised appropriately and that its assets are invested in a systematic and productive manner. The board appoints the

president, the provost, the vice presidents, the deans and other personnel reporting directly to the president and the provost.

The president directs the university operations in accordance with the Universities Act, the values of the university community, the university strategy adopted by the board and the guidelines and regulations issued by the board. The president is responsible for the resource management and allocation of the university and leads the long-term strategic development and strategic partnerships of the university.

The provost substitutes for the president, supports the president in strategic development, the appointment of professors and resource management, and leads all the processes connected to teaching, research and societal impact. The provost reports to the president, and the vice presidents report to the provost.

The Academic Affairs Committee is a joint, multi-member, university-level administrative body referred to in the Universities Act. The committee decides on the curricula and degree requirements, sets the admission criteria and appoints the necessary committees for organising research and teaching. It also appoints

the five-member nomination committee and the members of the board based on proposals made by the nomination committee.

Aalto University is organised into six schools and joint 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, research and other academic activities. They are academically independent within the framework of the university's strategy, guidelines and annual operating plan and budget. Further provisions on the organisation of the schools' operations are issued in the bylaws of the schools. To deal with academic matters at the level of schools, the university has academic affairs committees for each school. The school academic affairs committee performs the duties assigned to it by the University Academic Affairs Committee.

The university and its subsidiaries form the Aalto University Group, with the board and the president responsible for its governance. The president appoints university representatives to the annual meetings of the subsidiaries, in 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.

In 2022, the Aalto University board comprised the following members: Mariana Amatullo, Sari Baldauf, Ilkka Kivimäki, Mikko Kosonen (chairman), Karel Luyben, Andreas Mortensen and Susanna Pettersson. Susanna Pettersson stepped down in 2022 after serving as a board member for the maximum period permitted under the foundation's constitution (three terms). Marita Niemelä was elected as a new board member as of 1 January 2023. Ilkka Niemelä, Aalto University's President, served as the rapporteur for the board.

Aalto University would like to thank Susanna Pettersson warmly for her significant contribution to the university.

Figures in parenthesis refer to 2021 unless otherwise mentioned.

INFRASTRUCTURES & CAMPUS

INVESTING IN OPEN STATE-OF-THE-ART PHYSICAL & DIGITAL INFRASTRUCTURES AND CAMPUS ENVIRONMENT AS LONG-TERM ASSETS.

INFRASTRUCTURES

Infrastructures provide the framework for high-quality research, education and innovation. Aalto University maintains several high-quality infrastructures for research and education and develops them in cooperation with its partners on a continuous basis. All of Aalto University's significant research and teaching infrastructures are open. Significant infrastructures include the following: Aalto Ice and Wave Tank, Aalto i3 supporting industries and innovation activities, Aalto NeuroImaging (ANI) brain imaging and behavioural research laboratories, Aalto Studios media centre, Bioeconomy infrastructure, Metsähovi radio observatory, OtaNano microtechnologies and nanotechnologies infrastructure, RAMI (RawMatTERS) raw materials research infrastructure and Science-IT computational science infrastructure.

The software and high-performance computers used by the university are available to users outside the campus via a virtual desktop infrastructure (VDI). Fast network connections on campus enable efficient data

transfer and high computational capacity. The campus also has an internal 5G network for its research environment. The university's internal Secwork environment allows for the processing of highly sensitive data in research. The SECADATA operating environment of Aalto University, registered in 2022, meets the information security requirements of the Secondary Use Act and Findata.

The contents of the Aalto University Data Hub website, launched at the end of 2021, were expanded in 2022. The site contains a list of research data sources and available tools and services. The Data Hub makes it easier to find research data, and it also promotes data reuse.

CAMPUS

Aalto University's long-term campus development programme continued to progress during 2022. Construction of Aalto University Works continued in the K-block of the Otaniemi campus. It will be built in stages into a workshop complex for the actors and partners of Aalto University. The construction of Marsio (Otakaari 2A) and Otakaari 2B began in February 2022. The buildings

will provide the campus with additional space for teaching and research, as well as for events and studio work. In 2022, work to improve the outdoor areas also continued at Amphitheater Square, in front of Dipoli and at Korkeakouluaukio Square.

Due to the steep increase in construction costs, the Aalto University board decided to adjust the campus investment plan for the next few years. Work on ongoing projects will continue as planned, but new projects and the start of projects in the competitive tendering stage will be postponed. Aalto University and student organisations have agreed on the postponement of the new student centre.

Aalto University aims to make its campus carbon neutral by the year 2030. The focus in the university's carbon neutrality action plan is on the active reduction of carbon dioxide emissions instead of on compensation. Carbon dioxide emissions from energy generation on the university premises decreased by three percent compared to the previous year. In 2022, carbon dioxide emissions totalled 4 311 (4 452) t CO₂-eq.

The carbon-neutral and almost completely self-sufficient heating and cooling system designed in cooperation with Fortum for the Aalto University Works block progressed to the start of its second phase in 2022. The system is scheduled to be completed within a few years. The innovative energy solution received Motiva's Energy Genius of the Year 2022 award. Aalto University has also introduced energy saving measures to support its carbon neutrality target. The energy saving campaign launched in October 2022 will continue in 2023.

At the end of December, a total of 53 500 m² (47 500 m²) of Aalto University's facilities were rented to the university's partners. The largest tenants were VTT Technical Research Centre of Finland Ltd, Aalto University Executive Education, Kanresta Oy and Senate Properties. The university had use of a total of 210 000 m² (210 000 m²) of workspace, of which the Otaniemi campus accounted for 207 000 m² (207 000 m²) and other sites for 3 000 m² (3 000 m²). In 2022, the university's facility expenses totalled EUR 46 million (EUR 44 million).

Figures in parenthesis refer to 2021 unless otherwise mentioned.



Aalto University's campus in Otaniemi is home to the lively community supporting innovations. Campus development combines valuable history with new ways of planning.
Photo: Mikko Raskinen

SERVICES & FINANCIAL RESOURCES

BUILDING DYNAMIC SERVICE SOLUTIONS AND DATA-DRIVE OPERATIONS. STRENGTHENING OUR FINANCIAL RESILIENCE.

SERVICE SOLUTIONS

Aalto University's service functions support the university in carrying out its tasks and achieving its objectives. Service levels and resourcing are based on the university's strategic choices and the needs of the schools. A new resourcing model for the university's services was introduced at the start of 2022, allowing more flexibility in the service needs of the schools. The reform focuses on the long-term development of services, the alignment of service processes and the transparency of service costs.

A service mindset, the digitalisation of services and efficient data management play a key role in the development of the university's services. In 2022, the university made significant investments in the development of services through numerous development projects based on its strategy.

The implementation of the services and the first pilot projects of Digivisio 2030, a joint project of Finnish higher education institutions, began in 2022. The key objective of Digivisio 2030 is to enable more flexible learning paths and smooth cooperation and support the renewal of higher education institutions by building a digital service environment. Aalto University acts as the university in charge of Digivisio 2030 and is

a partner in its early-stage pilot project to develop the provision of non-formal continuous learning.

THE DEVELOPMENT OF OPERATIONS AND RISK MANAGEMENT

Aalto University's quality system is based on the principle of continuous improvement. The planning and monitoring of the university's operations are built around the annual processes of the quality system. The purpose of the University Review is to assess the implementation of the university's strategy, and the review is based on the feedback and results of the previous year. Long-term goals for the next four years and plans to implement them (Our Plan) are set in the University Dialogue. Assumptions made in the strategy concerning the operating environment are assessed in relation to identified changes in the University Preview.

Developing the university's operations requires continuous evaluation and monitoring. In 2022, preparations were made for the audit of the university's quality system. The Aalto community was widely engaged in the self-assessment work for the audit. The audit was carried out in January 2023 by an international audit team from the Finnish Education Evaluation Centre (FINEEC). The emphasis

in the audit model for higher education institutions is on a student-centred approach and the impact of activities as part of education, research and artistic activities. The implementation of equality, diversity and inclusion in the university community was the optional evaluation target at Aalto University.

Risk management is an essential part of the quality and management system of Aalto University, supporting the realisation of the university's strategic and operational goals. To achieve its goals, the university is prepared to take risks in which the expected benefits are in reasonable proportion to the extent and likelihood of the potential losses. Aalto University aims to avoid risks that are unlikely to bring corresponding benefits and, when appropriate, to cost-effectively mitigate risks to an acceptable level. The purpose of risk management is to cover all the risks that may threaten the achievement of the university's short-term or long-term objectives. Particular consideration is given to the management of strategic risks and financially important risks.

The key risks in Aalto University's operating environment are related to the safeguarding of funding for the university's operations in the long term. The unpredictability and potential redirection of

public funding for the university sector may weaken Aalto University's ability to achieve its long-term strategic goals. The financial resilience of the university will also be affected by higher inflation if the impact of inflation is not adequately accounted for in the funding framework for universities. Uncertainty in financial markets may adversely affect Aalto University's endowment portfolio and thus the funding available for the university's core activities in the long term.

The Russian invasion of Ukraine in February 2022 and the ongoing war have increased both the economic risks and risks arising from the operating environment. The geopolitical uncertainty resulting from the war may have a wide range of long-term impacts on Aalto University's operating environment. The prolonged COVID-19 pandemic and the continuation of the exceptional circumstances in early 2022 increased risks related to the wellbeing of the Aalto community. Challenges to the wellbeing of personnel and students may reduce the efficiency of the university and weaken the performance of its operations.

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

FINANCIAL POSITION

Aalto University's pro forma operative income totalled EUR 370 million (EUR 370 million). Government funding of EUR 224 million (EUR 227 million) was the main source of income. The decrease of government funding is primarily explained by the one-time additional funding received in 2021 to implement the university's strategy. Grant income was as follows: EUR 53 million (EUR 50 million) from the Academy of Finland, EUR 25 million (EUR 24 million) from the European Union and EUR 14 million (EUR 15 million) from Business Finland. Corporate funding totalled EUR 14 million (EUR 13 million), and other funding EUR 35 (EUR 37 million).

Pro forma operative expenses totalled EUR 397 million (EUR 377 million), an increase of 5% compared to the previous year. Personnel and facility expenses were the two largest expense items. Personnel expenses accounted for 65% (69%) and facility expenses for 11% (12%) of operative expenses. Personnel expenses remained at the previous year's level. The relative decrease in personnel expenses is explained by the rise in other expenses. Facility expenses grew by 4% as a result of higher electricity prices. The university's operations returned to pre-COVID-19 levels, resulting in an increase of 23% in other expense categories. As a result of the exceptional situation caused by the COVID-19 pandemic, travel expenses and service purchases in particular were lower than normal in 2020 and 2021.

Aalto University's pro forma operative loss was EUR 27 million (EUR 7 million).

Fundraising profit in the official profit & loss statement was EUR 10 million (EUR 12 million). The fundraising income of EUR 11 million (13 million) consisted of donations received. Of the donations received, EUR 6 million were targeted to Aalto University's fields of education or to the university in general, in accordance with the terms

of the government matching funding campaign. Other significant donation targets included the Bioinnovation Center, which received EUR 3 million, as well as professorships and professorships of practice, which received a total of EUR 2 million in donations. The transfer of donations received to restricted funds in the balance sheet is shown in the change in restricted funds in the profit & loss statement.

Loss from endowment activities amounted to EUR 44 million (profit EUR 215 million). The loss from endowment activities in 2022 mainly consist of a decrease in the value of investment funds. The returns from the main asset classes were negative during the year. The decrease in the value of the university's endowment assets was relatively low, mainly due to the high returns on alternative risk investments.

Profit from financing activities amounted to EUR 11 million (loss EUR 1 million). The profit from financing activities in 2022 is primarily explained by the increase in the value of derivative contracts concluded by the university to hedge against an increase in the Euribor interest rate. The profit/loss from endowment activities and financing activities includes both realised profits and losses as well as changes in the fair value of assets.

The university's net loss for the financial year was EUR 65 million (profit EUR 203 million), which was -18% (55%) of turnover.

The university's balance sheet totalled EUR 2 032 million (EUR 2 044 million).

In assets, the decrease in the book value of investments to EUR 1 344 million (EUR 1 402 million) is primarily explained by the decrease in the market value of endowment assets. Other changes in the value of investments were caused by the sale of housing company shares owned by the university, changes in the value of shareholdings arising from innovations and the return of capital paid by a group company. The book value of tangible assets decreased to EUR 43 million (EUR 48 million) because fewer investments were made than in the previous year. The increase in receivables to EUR 550 million (EUR 509 million) is explained by the loans granted to group companies, the increase in the value of derivative contracts and the increase in short-term receivables related to externally funded projects. Cash and bank decreased to EUR 59 million (EUR 83 million), and securities increased to EUR 35 million (EUR 0 million).

Figures in parenthesis refer to 2021 unless otherwise mentioned.

In equity and liabilities, the decrease in equity to EUR 1 542 million (EUR 1 591 million) is primarily explained by the loss for the financial year. The matching funding received from the Ministry of Education and Culture based on the fundraising campaign increased the capital reserve to EUR 453 million (EUR 446 million). Because of donations received, restricted funds increased to EUR 80 million (EUR 71 million). Unrestricted funds increased to EUR 544 million (EUR 361 million). The value of unrestricted funds was increased by the profits from endowment activities from previous years and reduced by their use to finance the university's activities. Liabilities increased to EUR 490 million (EUR 452 million). Long-term liabilities were increased by drawn loans and short-term liabilities by the increase in coordinated assets in externally funded projects and cash collateral received.

| KEY FIGURES, EUR 1M | 2022 | 2021 | 2020 | 2019 | 2018 |
|-----------------------------------|------------|------------|-----------|------------|------------|
| Operative income | 370 | 370 | 343 | 339 | 347 |
| Operative profit/loss | -27 | -7 | -15 | -32 | -18 |
| Fundraising profit/loss | 10 | 12 | 1 | 3 | 2 |
| Endowment profit/loss | -44 | 215 | 41 | 153 | -64 |
| Profit/loss for the period | -65 | 203 | 20 | 130 | -85 |
| Total cash flow | -24 | -22 | 48 | -43 | 38 |
| Total assets | 2 032 | 2 044 | 1 869 | 1 847 | 1 669 |
| Total equity | 1 542 | 1 591 | 1 377 | 1 353 | 1 221 |
| Total liabilities | 490 | 452 | 491 | 493 | 446 |

Figures in parenthesis refer to 2021 unless otherwise mentioned.

In the cash flow statement, cash flow from ordinary operations came to EUR 25 million (EUR 30 million). The higher operative loss was mainly covered using profits from endowment activities and an increase in the amount of coordinated assets. Cash flow from investments was EUR -25 million (EUR -25 million). Of the cash flow from investments, EUR -15 million (EUR -21 million) was related to investments in tangible and intangible assets and EUR -10 million (EUR -4 million) to endowment activities. The cash flow from financing activities was EUR -24 million (EUR -26 million), mainly due to short-term investments in securities. The university's change in cash and bank was EUR -24 million (EUR -22 million). Of this change, EUR -14 million (EUR -18 million) was related to the university's ordinary activities and EUR -10 million (EUR -4 million) to endowment activities.

Endowment

Aalto University engages in long-term and responsible endowment activities to support the implementation of its strategy. The endowment activities aim to preserve and accumulate the real value of the endowment capital in the long term, as well as to provide a steady and predictable income to fund university operations in the medium 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 EUR 1 292 million (EUR 1 356 million). The average annual return on the endowment portfolio has been 5.2% after expenses since the inception of operation. In 2022, the return on the endowment portfolio was -3.5% (18.4%) after expenses. At the end of the year, 20% (23%) of the portfolio was held in fixed income instruments, 60% (61%) in equities and 20% (16%) in alternative risk.

Aalto University is committed to responsible investing and managing the endowment in a sustainable way in line with the university's values. The university has signed the

Principles for Responsible Investments (PRI), and it is also a member of Finland's Sustainable Investment Forum (FINSIF) and the Standards Board for Alternative Investments (SBAI). Aalto University publishes an annual endowment sustainability report.

Aalto University Group

Aalto University Group's total income was EUR 512 million (EUR 637 million) and total expenses EUR 579 million (EUR 436 million). The Group recorded a net loss of EUR 67 million (profit EUR 202 million) for the financial year.

The Group's balance sheet totalled EUR 2 036 million (EUR 2 049 million) at the end of the financial year. The decrease in the balance sheet total is primarily explained by the decrease in the value of the university's endowment assets. The loan raised to implement the campus development programme increased the balance sheet total.

Cash flow from Aalto University Group's ordinary operations was EUR 41 million (EUR 44 million), and the cash flow from investments was EUR -60 million (EUR -35 million). Cash flow from financing was EUR -6 million (EUR -34 million). The group's change in cash and bank was EUR -25 million (EUR -26 million).

The sub-group Aalto University Executive Education recorded a turnover of EUR 20 million (EUR 20 million) and a net profit of EUR 0 million (EUR 1 million).

All Aalto University Group companies have prepared their own financial statements for the financial year 2022.

Major events after the financial year

No events of a material nature affecting the financial status of the Aalto University Group and its financial statements for 2022 took place between the end of the financial year and the preparation of the financial statements.

Estimate of future development

Most of Aalto University’s operations are financed from public funds. The university’s main source of income is central government funding, which accounted for 61% of the university’s operative income in 2022. Public funding from the Academy of Finland and Business Finland accounted for 18% and from the European Union for 7% of the income.

The annual government funding received by Aalto University in 2022 has declined by 35% from the level of funding in the university’s first year of

operation in 2010, adjusted for inflation. The decline of government funding by more than a third in real terms poses significant challenges to the university’s operations. If the impact of inflation is not accounted for in the funding of universities in the coming years, the funding base for Aalto University’s research and education activities will continue to deteriorate.

A possible redirection of the educational responsibilities of the university sector as a result of a stronger regional policy and a reduction in the funding framework for higher education institutions as part of the balancing of public finances would also weaken Aalto University’s financial operating basis in the coming years.

The Aalto University board approved the budget for 2023 and the long-term financial plan for the period 2024–2026 at its meeting on 9 June 2022. The key priorities of the planning period are securing sufficient, steady and predictable resourcing for core activities, enabling success in a world of flexible and multilocational work and maintaining intergenerational equity by safeguarding the university’s operations both in short and long term. Efforts will be made to expand the funding base by increasing external funding.

During the planning period, measures will be taken to enhance the competitiveness of the research and teaching infrastructures and develop the university’s digital infrastructures and services. More extensive adoption of flexible and multilocational work will bring a moderate reduction in facility expenses. Broadening the funding base and adapting to a higher number of students will require further increases in the number of academic personnel. The higher number of students results from the increase in intake in the period 2020–2022, in line with the goal of raising the level of education set out in the Finnish Government Programme.

Activities with related parties

Aalto University maintains a register of its related parties, which covers all necessary and practically available information. This related parties register is updated on an annual basis and includes the decision-makers of the university and its subsidiaries, as well as their family members. A summary of financial activities with related parties is presented in the notes to the financial statements.

Auditor

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

| FINANCIAL RATIOS | FOUNDATION | | | | | GROUP | | | | |
|--|------------|-------|------|-------|-------|-------|------|------|------|------|
| | 2022 | 2021 | 2020 | 2019 | 2018 | 2022 | 2021 | 2020 | 2019 | 2018 |
| Change in revenue | | | | | | | | | | |
| Change in turnover % | 0% | 8% | 1% | -2% | -1% | -1% | 8% | 0% | -2% | -1% |
| Profitability | | | | | | | | | | |
| Operating profit, % of turnover | -9% | -3% | -6% | -11% | -7% | -9% | -3% | -5% | -10% | -5% |
| Change in equity % | -3% | 16% | 2% | 11% | -6% | -3% | 15% | 2% | 10% | -6% |
| Endowment return % | -3.5% | 18.4% | 3.7% | 15.6% | -6.0% | | | | | |
| Liquidity (without endowment cash and bank) | | | | | | | | | | |
| Quick ratio | 1.0 | 2.9 | 0.7 | 1.0 | 0.8 | 1.4 | 1.4 | 1.0 | 1.8 | 1.5 |
| Days cash on hand | 24 | 43 | 64 | 41 | 30 | 25 | 45 | 70 | 44 | 34 |
| Solvency | | | | | | | | | | |
| Equity ratio | 78% | 80% | 76% | 75% | 75% | 79% | 81% | 77% | 77% | 76% |
| Gearing | 14% | 13% | 16% | 19% | 17% | 14% | 12% | 15% | 18% | 16% |

Figures in parenthesis refer to 2021 unless otherwise mentioned.

Financial statements 2022

Based on the audited Finnish version

AALTO UNIVERSITY FOUNDATION PRO FORMA PROFIT & LOSS STATEMENT, €1M

(not audited)

| OPERATIVE INCOME | 2022 | % | 2021 | % | 2020 | % | 2019 | % | 2018 | % |
|--|------------|-------------|------------|-------------|------------|-------------|------------|-------------|------------|-------------|
| Government funding | 224 | 61% | 227 | 61% | 212 | 62% | 212 | 62% | 219 | 63% |
| Academy of Finland | 53 | 14% | 50 | 13% | 47 | 14% | 48 | 14% | 51 | 15% |
| European Union | 25 | 7% | 24 | 7% | 24 | 7% | 24 | 7% | 21 | 6% |
| Business Finland | 14 | 4% | 15 | 4% | 12 | 4% | 11 | 3% | 15 | 4% |
| Corporate | 14 | 4% | 13 | 4% | 14 | 4% | 14 | 4% | 12 | 4% |
| Other | 35 | 9% | 37 | 10% | 30 | 9% | 26 | 8% | 24 | 7% |
| Transfer from restricted funds | 6 | 2% | 4 | 1% | 4 | 1% | 5 | 1% | 4 | 1% |
| TOTAL | 370 | 100% | 370 | 100% | 343 | 100% | 339 | 100% | 347 | 100% |
| OPERATIVE EXPENSES | | | | | | | | | | |
| Academic personnel | 183 | 46% | 185 | 49% | 173 | 48% | 167 | 45% | 160 | 44% |
| Service personnel | 76 | 19% | 74 | 20% | 70 | 20% | 69 | 19% | 67 | 18% |
| Facilities | 46 | 11% | 44 | 12% | 43 | 12% | 46 | 12% | 52 | 14% |
| Service purchases | 43 | 11% | 38 | 10% | 35 | 10% | 41 | 11% | 39 | 11% |
| Depreciations | 15 | 4% | 12 | 3% | 12 | 3% | 12 | 3% | 10 | 3% |
| Other | 34 | 9% | 24 | 6% | 24 | 7% | 37 | 10% | 36 | 10% |
| TOTAL | 397 | 100% | 377 | 100% | 358 | 100% | 371 | 100% | 365 | 100% |
| OPERATIVE PROFIT/LOSS | | | | | | | | | | |
| | -27 | | -7 | | -15 | | -32 | | -18 | |
| Spending from endowment and cumulative profits | 27 | | 7 | | 15 | | 32 | | 18 | |
| OPERATIVE PROFIT/LOSS 2 | 0 | | 0 | | 0 | | 0 | | 0 | |

FOUNDATION PROFIT & LOSS STATEMENT, €1 000

| | Note | 1.1.-31.12.2022 | 1.1.-31.12.2021 |
|---|------|-----------------|-----------------|
| ORDINARY OPERATIONS | | | |
| Turnover | | | |
| Universities Act based government grant | | 224 306 | 226 560 |
| Income from grants | 2 | 111 637 | 106 561 |
| Income from business activities | 7 | 22 379 | 26 855 |
| Other income | | 5 782 | 5 702 |
| | | 364 104 | 365 678 |
| Expenses | | | |
| Personnel expenses | 5 | 259 471 | 258 652 |
| Facility expenses | | 45 590 | 43 700 |
| Depreciation and amortization | 8 | 14 715 | 12 243 |
| Other expenses | 6 | 77 383 | 62 671 |
| | | 397 158 | 377 266 |
| OPERATING PROFIT/LOSS | | -33 054 | -11 588 |
| FUNDRAISING | | | |
| Fundraising income and expenses | 9 | 10 389 | 12 063 |
| ENDOWMENT ACTIVITIES | | | |
| | 10 | | |
| Income and expenses | | 53 804 | 128 897 |
| Changes in the fair value of investments | | -97 968 | 86 375 |
| Endowment activities total | | -44 164 | 215 272 |
| FINANCING ACTIVITIES | | | |
| | 11 | | |
| Investment property, income and expenses | | -7 448 | -6 918 |
| Other financial income and expenses | | 1 585 | 2 197 |
| Changes in the fair value of derivatives | | 16 711 | 3 269 |
| Financing activities total | | 10 848 | -1 452 |
| PROFIT/LOSS BEFORE TRANSFERS IN FINANCIAL STATEMENTS AND TAX | | -55 981 | 214 295 |
| APPROPRIATIONS AND TAXES | | | |
| Change in restricted funds | | -8 241 | -11 014 |
| Tax | 12 | 414 | 352 |
| NET PROFIT/LOSS OF THE FINANCIAL YEAR | | -64 635 | 202 929 |

FOUNDATION BALANCE SHEET, €1 000

| | Note | 31.12.2022 | 31.12.2021 |
|---------------------------------------|------|------------------|------------------|
| ASSETS | | | |
| FIXED ASSETS | | | |
| Intangible assets | 13 | 858 | 1 041 |
| Tangible assets | | | |
| | 14 | | |
| Buildings and constructions | | 34 | 18 |
| Machinery and equipment | | 39 866 | 40 140 |
| Other tangible assets | | 1 010 | 798 |
| Advance payments and work in progress | | 2 544 | 6 676 |
| | | 43 454 | 47 632 |
| Investments | 16 | | |
| Shares in Aalto group companies | | 66 866 | 67 566 |
| Shares in jointly owned companies | | 4 441 | 4 441 |
| Other shareholdings | | 6 621 | 9 507 |
| Endowment assets | 17 | 1 265 807 | 1 320 676 |
| | | 1 343 735 | 1 402 190 |
| TOTAL FIXED ASSETS | | 1 388 046 | 1 450 863 |
| CURRENT ASSETS | | | |
| Inventories | | 194 | 137 |
| Receivables | | | |
| Long-term receivables | 18 | | |
| Receivables, associated companies | | 2 000 | 2 000 |
| Loans to group companies | | 473 595 | 236 570 |
| Other receivables | | 13 816 | 325 |
| | | 489 411 | 238 895 |
| Short-term receivables | 19 | | |
| Accounts receivable | | 35 613 | 33 514 |
| Loans to group companies | | 0 | 213 735 |
| Receivable, group companies | | 503 | 488 |
| Other receivables | | 10 389 | 11 379 |
| Prepaid expenses and accrued income | | 14 224 | 11 336 |
| | | 60 729 | 270 451 |
| Securities | 21 | 34 972 | 0 |
| Cash and bank | | | |
| Ordinary activities | | 34 282 | 48 573 |
| Endowment | | 24 789 | 34 892 |
| | | 59 072 | 83 465 |
| TOTAL CURRENT ASSETS | | 644 378 | 592 948 |
| TOTAL ASSETS | | 2 032 424 | 2 043 811 |

FOUNDATION BALANCE SHEET, €1 000

| | Note | 31.12.2022 | 31.12.2021 |
|-------------------------------------|------|------------------|------------------|
| EQUITY AND LIABILITIES | | | |
| EQUITY | | | |
| | 22 | | |
| Foundation capital | | 280 000 | 280 000 |
| Capital reserve | | 452 683 | 445 618 |
| Restricted funds | 23 | | |
| Restricted funds expendable | | 20 039 | 15 522 |
| Restricted funds capitalizing | | 59 693 | 55 970 |
| Unrestricted funds | 24 | | |
| Entrepreneurship fund | | 161 | 170 |
| Tenure track fund | | 24 655 | 25 397 |
| Accumulated endowment returns fund | | 519 211 | 335 043 |
| Operating equity | | 154 644 | 154 644 |
| Profit/Loss from previous years | | 95 541 | 76 028 |
| Profit/Loss of the financial year | | -64 635 | 202 929 |
| TOTAL EQUITY | | 1 541 992 | 1 591 321 |
| LIABILITIES | | | |
| | 25 | | |
| Long-term liabilities | | | |
| Loans from financial institutions | | 300 076 | 274 034 |
| Advance payments | | 190 | 172 |
| Other long-term liabilities | | 8 147 | 13 950 |
| | | 308 413 | 288 156 |
| Short-term liabilities | | | |
| Loans from financial institutions | | 13 958 | 13 589 |
| Advance payments | | 49 733 | 55 191 |
| Accounts payable | | 10 676 | 9 683 |
| Liabilities to group companies | | 38 285 | 40 369 |
| Other liabilities | | 41 863 | 23 672 |
| Accrued expenses | | 27 504 | 21 830 |
| | | 182 019 | 164 333 |
| TOTAL LIABILITIES | | 490 432 | 452 489 |
| TOTAL EQUITY AND LIABILITIES | | 2 032 424 | 2 043 811 |

FOUNDATION CASH FLOW STATEMENT, €1 000

| | 1.1.-31.12.2022 | 1.1.-31.12.2021 |
|---|-----------------|-----------------|
| CASH FLOW FROM ORDINARY OPERATIONS | | |
| Operating profit/loss | -33 054 | -11 588 |
| Depreciation included in the above | 14 715 | 12 243 |
| Changes in working capital | 4 725 | -8 778 |
| Cashflow in fundraising | 10 389 | 12 064 |
| Paid direct taxes | -414 | -352 |
| Transfer from endowment cash and bank | 32 385 | 31 380 |
| Transfer to endowment cash and bank | -4 100 | -5 308 |
| TOTAL CASH FLOW FROM OPERATIONS (A) | 24 647 | 29 660 |
| CASH FLOW FROM INVESTMENTS | | |
| CASH FLOW FROM INVESTMENTS IN TANGIBLE ASSETS AND INTANGIBLE ASSETS | | |
| Investments in tangible and intangible assets | -10 353 | -18 124 |
| Received investment grants | 2 856 | 3 664 |
| Net proceeds from real estate | -7 448 | -6 918 |
| CASH FLOW FROM INVESTMENTS IN TANGIBLE ASSETS AND INTANGIBLE ASSETS (B1) | -14 945 | -21 378 |
| CASH FLOW FROM ENDOWMENT ACTIVITIES | | |
| Investments in endowment | -504 412 | -582 776 |
| Proceeds from sales of financial assets | 506 684 | 602 002 |
| Other net proceeds from investments activities | 8 845 | 2 962 |
| Transfer to other activities cash and bank (net) | -21 220 | -26 072 |
| CASH FLOW FROM ENDOWMENT ACTIVITIES (B2) | -10 103 | -3 883 |
| TOTAL CASH FLOW FROM INVESTMENTS (B) | -25 048 | -25 261 |
| CASH FLOW FROM FINANCING ACTIVITIES | | |
| Changes in equity | 7 065 | 0 |
| Changes in the loan portfolio | | |
| Group net lending | -21 548 | -40 |
| Withdrawn long-term loans | 130 000 | 30 000 |
| Paid long-term loans | -103 589 | -62 989 |
| Other income and expenses | 1 973 | 2 197 |
| Other changes in cash flow | -30 828 | 4 496 |
| Transfer to endowment cash and bank | -7 065 | 0 |
| TOTAL CASH FLOW FROM FINANCING ACTIVITIES (C) | -23 992 | -26 337 |
| CHANGE IN CASH AND BANK | | |
| Ordinary activities | -14 290 | -18 055 |
| Endowment activities | -10 103 | -3 883 |
| CHANGE IN CASH AND BANK (A+B+C) | -24 393 | -21 938 |
| Ordinary activities cash and bank beginning of year | 48 573 | 66 628 |
| Ordinary activities cash and bank end of year | 34 282 | 48 573 |
| Change in cash and bank Ordinary activities | -14 290 | -18 055 |
| Endowment cash and bank beginning of year | 34 892 | 38 776 |
| Endowment cash and bank end of year | 24 789 | 34 892 |
| Change in cash and bank Endowment activities | -10 103 | -3 883 |
| CHANGE IN CASH AND BANK | -24 393 | -21 938 |

GROUP PROFIT & LOSS STATEMENT, €1 000

| | Note | 1.1.-31.12.2022 | 1.1.-31.12.2021 |
|--|------|-----------------|-----------------|
| ORDINARY OPERATIONS | | | |
| Turnover | | | |
| Universities Act based government grant | | 224 306 | 226 560 |
| Income from grants | 2 | 111 641 | 106 561 |
| Income from business activities | 7 | 42 499 | 47 425 |
| Other income | | 6 057 | 6 042 |
| | | 384 503 | 386 588 |
| Expenses | | | |
| Personnel expenses | 5 | 271 613 | 270 755 |
| Facility expenses | | 10 826 | 11 544 |
| Depreciation and amortization | 8 | 30 228 | 27 991 |
| Other expenses | 6 | 105 287 | 86 389 |
| | | 417 954 | 396 679 |
| Profit/loss attributable to minority interests in associated companies | | 11 | 49 |
| PROFIT/LOSS FROM ORDINARY OPERATIONS | | -33 440 | -10 042 |
| FUNDRAISING | | | |
| Income and expenses | 9 | 10 389 | 12 063 |
| ENDOWMENT ACTIVITIES | 10 | | |
| Income and expenses | | 53 804 | 128 897 |
| Changes in the fair value of investments | | -97 968 | 86 375 |
| Endowment activities total | | -44 164 | 215 272 |
| FINANCING ACTIVITIES | 11 | | |
| Investment property, income and expenses | | -5 026 | -4 906 |
| Other financial income and expenses | | -3 246 | -2 897 |
| Changes in the fair value of derivatives | | 16 812 | 3 550 |
| Financing activities total | | 8 540 | -4 254 |
| PROFIT/LOSS BEFORE TRANSFERS IN FINANCIAL STATEMENTS AND TAX | | -58 675 | 213 040 |
| APPROPRIATIONS AND TAXES | | | |
| Change in restricted funds | | -8 241 | -11 014 |
| Tax | 12 | -99 | 274 |
| NET PROFIT/LOSS OF THE FINANCIAL YEAR | | -66 817 | 201 752 |

GROUP BALANCE SHEET, €1 000

| | Note | 31.12.2022 | 31.12.2021 |
|---------------------------------------|------|------------------|------------------|
| ASSETS | | | |
| FIXED ASSETS | | | |
| Intangible assets | 13 | 1 917 | 2 290 |
| Tangible assets | 14 | | |
| Land and water areas | | 42 689 | 37 963 |
| Buildings and constructions | | 409 505 | 425 980 |
| Machinery and equipment | | 60 907 | 65 329 |
| Other tangible assets | | 4 955 | 4 468 |
| Advance payments and work in progress | | 56 923 | 23 367 |
| | | 574 979 | 557 107 |
| Investments | 16 | | |
| Shares in associated companies | | 483 | 472 |
| Other shareholdings | | 8 790 | 11 677 |
| Endowment assets | 17 | 1 265 807 | 1 320 676 |
| | | 1 275 081 | 1 332 824 |
| TOTAL FIXED ASSETS | | 1 851 977 | 1 892 222 |
| CURRENT ASSETS | | | |
| Inventories | | 195 | 137 |
| Receivables | | | |
| Long-term receivables | 18 | 14 816 | 1 325 |
| Short-term receivables | 19 | | |
| Accounts receivable | | 36 995 | 35 238 |
| Other receivables | | 11 299 | 12 273 |
| Prepaid expenses and accrued income | | 14 428 | 11 666 |
| | | 62 722 | 59 177 |
| Securities | 21 | 44 080 | 9 503 |
| Cash and bank | | 61 858 | 86 877 |
| TOTAL CURRENT ASSETS | | 183 671 | 157 019 |
| TOTAL ASSETS | | 2 035 648 | 2 049 241 |
| EQUITY AND LIABILITIES | | | |
| EQUITY | | | |
| Foundation capital | 22 | 280 000 | 280 000 |
| Capital reserve | | 452 683 | 445 618 |
| Restricted funds with separate assets | 23 | 79 733 | 71 492 |
| Unrestricted funds | 24 | 544 027 | 360 611 |
| Operating equity | | 154 644 | 154 644 |
| Profit/Loss from previous years | | 113 618 | 95 404 |
| Profit/Loss of the financial year | | -66 817 | 201 752 |
| TOTAL EQUITY | | 1 557 887 | 1 609 519 |
| PROVISIONS | | 0 | 54 |
| LIABILITIES | | | |
| Long-term | 25 | | |
| Loans from financial institutions | | 306 192 | 280 003 |
| Advance payments | | 5 140 | 4 550 |
| Other long-term liabilities | | 3 197 | 9 572 |
| Total long-term liabilities | | 314 529 | 294 125 |
| Short-term | | | |
| Loans from financial institutions | | 14 662 | 14 876 |
| Advance payments | | 58 857 | 58 847 |
| Accounts payable | | 15 064 | 16 723 |
| Accrued tax | | 4 393 | 4 949 |
| Other short-term liabilities | | 43 446 | 25 530 |
| Accrued expenses | | 26 810 | 24 616 |
| Total short-term liabilities | | 163 232 | 145 542 |
| TOTAL LIABILITIES | | 477 760 | 439 668 |
| TOTAL EQUITY AND LIABILITIES | | 2 035 648 | 2 049 241 |

GROUP CASH FLOW STATEMENT, €1 000

| | 1.1.-31.12.2022 | 1.1.-31.12.2021 |
|---|-----------------|-----------------|
| CASH FLOW FROM ORDINARY OPERATIONS | | |
| Operating profit/loss | -33 440 | -10 042 |
| Depreciation included in the above | 30 228 | 27 991 |
| Changes in working capital | 8 513 | -11 583 |
| Cashflow in fundraising | 10 389 | 12 063 |
| Paid direct taxes | -457 | -708 |
| Transfer from endowment cash and bank | 32 385 | 31 380 |
| Transfer to endowment cash and bank | -4 100 | -5 308 |
| TOTAL CASH FLOW FROM OPERATIONS (A) | 43 518 | 43 793 |
| CASH FLOW FROM INVESTMENTS | | |
| CASH FLOW FROM INVESTMENTS IN TANGIBLE ASSETS AND INTANGIBLE ASSETS | | |
| Investments in tangible and intangible assets | -53 718 | -35 791 |
| Received investment grants | 2 856 | 3 664 |
| Net proceeds from real estate | 965 | 995 |
| CASH FLOW FROM INVESTMENTS IN TANGIBLE ASSETS AND INTANGIBLE ASSETS (B1) | -49 897 | -31 132 |
| CASH FLOW FROM ENDOWMENT ACTIVITIES | | |
| Investments in endowment | -504 412 | -582 776 |
| Proceeds from sales of financial assets | 506 684 | 602 002 |
| Other net proceeds from investments activities | 8 845 | 2 962 |
| Transfer to other activities cash and bank (net) | -21 220 | -26 072 |
| CASH FLOW FROM ENDOWMENT ACTIVITIES (B2) | -10 103 | -3 883 |
| TOTAL CASH FLOW FROM INVESTMENTS (B) | -60 000 | -35 015 |
| CASH FLOW FROM FINANCING ACTIVITIES | | |
| Changes in equity | 7 065 | 0 |
| Changes in the loan portfolio | | |
| Withdrawn long-term loans | 130 000 | 31 335 |
| Paid long-term loans | -104 463 | -64 581 |
| Other income and expenses | -3 246 | -2 897 |
| Other changes in cash flow | -30 828 | 1 823 |
| Transfer to endowment cash and bank | -7 065 | 0 |
| TOTAL CASH FLOW FROM FINANCING ACTIVITIES (C) | -8 537 | -34 320 |
| CHANGE IN CASH AND BANK | | |
| Ordinary activities | -14 916 | -21 659 |
| Endowment activities | -10 103 | -3 883 |
| CHANGE IN CASH AND BANK (A+B+C) | -25 019 | -25 542 |
| Ordinary activities cash and bank beginning of year | 51 984 | 73 643 |
| Ordinary activities cash and bank end of year | 37 068 | 51 984 |
| Change in cash and bank Ordinary activities | -14 916 | -21 659 |
| Endowment cash and bank beginning of year | 34 892 | 38 776 |
| Endowment cash and bank end of year | 24 789 | 34 892 |
| Change in cash and bank Endowment activities | -10 103 | -3 883 |
| CHANGE IN CASH AND BANK | -25 019 | -25 542 |

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.

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 (2/500/2018) issued by the Ministry of Education and Culture (MoE). Financial assets and liabilities are valued at fair value through profit & loss statement or amortized cost in accordance with IFRS 9. Notes to financial assets and liabilities are presented in accordance with IFRS 7 where appropriate. The cash flow statement is presented as an indirect statement.

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.

Intellectual property rights

Aalto University owns, develops and commercializes intellectual property rights (IPR). University activates IPR registering costs. The shareholdings resulted from the transfer of rights are valued and revenue is recognized based on third-party valuation and conservative principles. Revenue from sales and licensing is recognized as invoiced. In connection with revenue recognition, possible liabilities to third parties are recorded.

Endowment

Endowment assets (Endowment portfolio) include the actual investment assets defined by the University Board. University's endowment portfolio consists of fund investments (non-current assets), foreign currency derivatives (current assets), and cash (current assets). The endowment investment returns are used to fund university operations. Endowment portfolio is valued at the market value.

Securities

Securities include short-term fund investments in current assets. Securities are valued at the market value.

Financial receivables and liabilities

Financial receivables and liabilities are valued at amortized cost, except for derivatives, which are valued at fair value through profit or loss.

Unrestricted funds

Investment and financing activities' surplus is transferred to the funds yearly, after 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.

Valuation techniques and significant non-observable inputs

Levels 1-3 valuation techniques are based on the information described below. The table also contains information on possible non-observable inputs and their use in determining fair value.

| Investment | Valuation basis |
|---|--|
| Investments in equity funds | The instruments included in the fund are valued at market value on the value date. If no reliable market value is available, the most recently confirmed market value is used. The valuation information is available on a monthly / quarterly basis from the fund manager. |
| Investments in fixed income funds | The instruments included in the fund are valued at market value on the value date. Investments in Fixed income funds can be valued at the last available bid price on each valuation day, if no reliable market value is available. If no reliable market value is available, the most recently confirmed market value is used. The valuation information is available on a monthly / quarterly basis from the fund manager. |
| Investments in private equity and alternative funds | The value of the fund is based on the fund valuation reports and the fair value corresponds to the fund's market value. The valuations of investments in private equity and alternative funds are based on market quotations or best-in-line feeds. If no reliable market value is available, the most recently confirmed market value is used. The valuation information is available on a monthly / quarterly basis from the fund manager. |

Financial assets and liabilities

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

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 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 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.

NOTES TO PROFIT & LOSS STATEMENT, €1 000

Derivative contracts

Interest rate swaps and FX forward exchange agreements were used during the financial year. Derivatives are not subject to hedge accounting. Derivatives are included in the profit & loss statement, according to the Accounting Act, and both realized and unrealized 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 procurements and facility rents relating to basic statutory functions. 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 or subject to value added tax.

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 profit & loss statement

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

Accounting principles and extent of the consolidated accounts

The Group consolidation is done according to the acquisition cost method. Internal business operations, internal receivables and liabilities, mutual ownership as well as internal profit sharing have been eliminated. The profit & loss 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 Profit/Loss from previous years.

| 1. TOTAL INCOME AND EXPENSES | Foundation 2022 | Foundation 2021 | Group 2022 | Group 2021 |
|--|-----------------|-----------------|----------------|----------------|
| Total income | 504 057 | 633 810 | 512 122 | 637 352 |
| Total expenses | 568 692 | 430 881 | 578 939 | 435 600 |
| Difference | -64 635 | 202 929 | -66 817 | 201 752 |
| 2. GRANT INCOME | Foundation 2022 | Foundation 2021 | Group 2022 | Group 2021 |
| Business Finland grants | 13 568 | 14 777 | 13 572 | 14 777 |
| Academy of Finland grants | 52 613 | 49 878 | 52 613 | 49 878 |
| European Union grants | 25 172 | 24 236 | 25 172 | 24 236 |
| Other grants | 20 284 | 17 671 | 20 284 | 17 671 |
| Total | 111 637 | 106 561 | 111 641 | 106 561 |
| 3. PROFIT & LOSS STATEMENT BY FIELD OF OPERATION | Foundation 2022 | Foundation 2021 | | |
| Education | | | | |
| Income | | | | |
| Government funding | 102 687 | 102 233 | | |
| Income from grants | 6 311 | 5 137 | | |
| Income from business activities | 1 265 | 1 294 | | |
| Other income | 327 | 275 | | |
| | 110 589 | 108 939 | | |
| Expenses | | | | |
| Total expenses | 161 465 | 150 013 | | |
| Education total | -50 875 | -41 075 | | |
| Research/R&D | | | | |
| Income | | | | |
| Government funding | 120 480 | 121 629 | | |
| Income from grants | 102 666 | 99 143 | | |
| Income from business activities | 20 581 | 24 985 | | |
| Other income | 5 317 | 5 306 | | |
| | 249 043 | 251 063 | | |
| Expenses | | | | |
| Total expenses | 231 826 | 221 714 | | |
| Research/R&D total | 17 218 | 29 349 | | |
| Societal impact | | | | |
| Income | | | | |
| Government funding | 1 140 | 2 698 | | |
| Income from grants | 2 661 | 2 281 | | |
| Income from business activities | 533 | 575 | | |
| Other income | 138 | 122 | | |
| | 4 472 | 5 676 | | |
| Expenses | | | | |
| Total expenses | 3 868 | 5 539 | | |
| Societal impact total | 604 | 137 | | |
| OPERATING PROFIT | -33 054 | -11 589 | | |
| Fundraising, investment and financial activities | -22 927 | 225 884 | | |
| Appropriations | -8 241 | -11 014 | | |
| Tax | 414 | 352 | | |
| PROFIT (LOSS) OF THE FINANCIAL YEAR | -64 635 | 202 929 | | |

NOTES TO PROFIT & LOSS STATEMENT, €1 000

| 4. PROFIT & LOSS STATEMENT IN ACCORDANCE FINNISH ACCOUNTING ORDINANCE 3 § | Foundation 2022 | Foundation 2021 | Group 2022 | Group 2021 |
|--|------------------------|--|------------------------|--|
| ORDINARY OPERATIONS | | | | |
| Income | 139 798 | 139 119 | 160 208 | 160 078 |
| Expenses | 397 158 | 377 267 | 417 954 | 396 679 |
| Personnel expenses | 259 471 | 258 652 | 271 613 | 270 755 |
| Depreciation and amortization | 14 715 | 12 243 | 30 228 | 27 991 |
| Other expenses | 122 972 | 106 372 | 116 113 | 97 933 |
| SURPLUS/DEFICIT FROM ORDINARY OPERATIONS | -257 360 | -238 148 | -257 746 | -236 601 |
| FUNDRAISING | | | | |
| Income | 11 129 | 13 049 | 11 129 | 13 049 |
| Expenses | 740 | 986 | 740 | 986 |
| INVESTMENT AND FINANCING ACTIVITIES | | | | |
| Income | 105 529 | 157 300 | 99 667 | 151 290 |
| Expenses | 57 588 | 33 124 | 54 135 | 30 197 |
| Changes in the fair value of investments | -81 257 | 89 644 | -81 156 | 89 925 |
| GENERAL GRANTS | 224 306 | 226 560 | 224 306 | 226 560 |
| SURPLUS BEFORE CHANGE IN RESTRICTED FUNDS AND TAX | -55 981 | 214 295 | -58 675 | 213 040 |
| APPROPRIATIONS AND TAXES | | | | |
| Change in restricted funds | -8 241 | -11 014 | -8 241 | -11 014 |
| Tax | 414 | 352 | -99 | 274 |
| SURPLUS/DEFICIT OF THE FINANCIAL YEAR | -64 635 | 202 929 | -66 817 | 201 752 |
| 5. PERSONNEL EXPENSES | Foundation 2022 | Foundation 2021 | Group 2022 | Group 2021 |
| Salaries and other compensations | 217 417 | 218 926 | 227 370 | 228 884 |
| Pension expenses | 37 388 | 34 908 | 39 217 | 36 703 |
| Other social expenses | 5 830 | 6 008 | 6 189 | 6 360 |
| Total | 260 634 | 259 842 | 272 776 | 271 946 |
| 6. OTHER EXPENSES | Foundation 2022 | Foundation 2021 | Group 2022 | Group 2021 |
| Materials and supplies | 13 474 | 12 524 | 13 751 | 12 861 |
| Travel expenses | 7 116 | 1 269 | 7 201 | 1 301 |
| Services | 44 143 | 38 999 | 55 383 | 49 151 |
| Other expenses | 13 455 | 10 529 | 29 758 | 23 726 |
| Total | 78 189 | 63 322 | 106 093 | 87 040 |
| 7. PROFIT & LOSS STATEMENT FOR BUSINESS ACTIVITIES | | Total business activities including to corporate income tax | | Subject to corporate Income tax |
| | Foundation 2022 | Foundation 2021 | Foundation 2022 | Foundation 2021 |
| Turnover | 22 379 | 26 855 | 14 529 | 13 316 |
| Personnel expenses | | | | |
| Salaries and other compensations | 3 298 | 7 260 | 3 606 | 3 471 |
| Pension expenses | 830 | 726 | 635 | 611 |
| Other social expenses | 1 028 | 1 041 | 940 | 885 |
| | 5 155 | 9 026 | 5 181 | 4 967 |
| Depreciation | 18 | 38 | 9 | 9 |
| Other expenses | 10 804 | 10 125 | 7 271 | 6 593 |
| OPERATING PROFIT | 6 401 | 7 665 | 2 068 | 1 747 |
| Financing income and expenses | | | | |
| Investment property, income | 6 111 | 5 673 | 0 | 0 |
| Investment property, expenses | 13 558 | 12 591 | 0 | 0 |
| | -7 448 | -6 918 | 0 | 0 |
| Tax | 417 | 352 | 417 | 352 |
| PROFIT/LOSS OF THE FINANCIAL YEAR | -1 463 | 395 | 1 651 | 1 395 |

NOTES TO PROFIT & LOSS STATEMENT, €1 000

| 8. DEPRECIATION AND AMORTIZATION | Foundation 2022 | Foundation 2021 | Group 2022 | Group 2021 |
|--|------------------------|------------------------|-------------------|-------------------|
| Depreciation according to plan | | | | |
| Intangible assets | 201 | 200 | 201 | 200 |
| Goodwill | 0 | 0 | 208 | 210 |
| Buildings | 6 | 7 | 16 594 | 17 667 |
| Machinery and equipment | 14 152 | 11 921 | 18 319 | 15 155 |
| Other tangible assets | 11 | 8 | 453 | 450 |
| Additional depreciation | 346 | 106 | 363 | 218 |
| Total | 14 715 | 12 243 | 36 138 | 33 900 |
| 9. FUNDRAISING | Foundation 2022 | Foundation 2021 | Group 2022 | Group 2021 |
| Donations | 11 129 | 13 049 | 11 129 | 13 049 |
| Fundraising expenses | 740 | 986 | 740 | 986 |
| | 10 389 | 12 063 | 10 389 | 12 063 |
| 10. ENDOWMENT | Foundation 2022 | Foundation 2021 | Group 2022 | Group 2021 |
| Income | | | | |
| Dividend income | 0 | 66 | 0 | 66 |
| Profit on sale of investments | 53 614 | 128 889 | 53 614 | 128 889 |
| Exchange rate gains | 15 737 | 2 363 | 15 737 | 2 363 |
| Other income | 24 918 | 15 271 | 24 918 | 15 271 |
| | 94 269 | 146 588 | 94 269 | 146 588 |
| Expenses | | | | |
| Interest expenses | 10 | 79 | 10 | 79 |
| Loss on sale of investments | 7 582 | 2 071 | 7 582 | 2 071 |
| Exchange rate losses | 30 766 | 14 364 | 30 766 | 14 364 |
| Other expenses | 2 107 | 1 177 | 2 107 | 1 177 |
| | 40 465 | 17 691 | 40 465 | 17 691 |
| Changes in the fair value of investments | -97 968 | 86 375 | -97 968 | 86 375 |
| | -44 164 | 215 272 | -44 164 | 215 272 |
| 11. FINANCING ACTIVITIES | Foundation 2022 | Foundation 2021 | Group 2022 | Group 2021 |
| Income | | | | |
| Dividend income | 0 | 300 | 0 | 0 |
| Investment property, income | 6 111 | 5 673 | 4 940 | 4 555 |
| Other income | 5 149 | 4 739 | 458 | 147 |
| | 11 260 | 10 711 | 5 397 | 4 702 |
| Expenses | | | | |
| Investment property, expenses | 13 558 | 12 591 | 9 966 | 9 461 |
| Other expenses | 3 565 | 2 842 | 3 704 | 3 044 |
| | 17 123 | 15 433 | 13 670 | 12 506 |
| Changes in the fair value of investments | 16 711 | 3 269 | 16 812 | 3 550 |
| | 10 848 | -1 452 | 8 540 | -4 254 |
| 12. TAX | Foundation 2022 | Foundation 2021 | Group 2022 | Group 2021 |
| Tax | 414 | 352 | 457 | 708 |
| Change in deferred tax | 0 | 0 | -556 | -434 |
| Total | 414 | 352 | -99 | 274 |

NOTES TO BALANCE SHEET, €1 000

| 13. INTANGIBLE ASSETS | Foundation 2022 | Foundation 2021 | Group 2022 | Group 2021 |
|--|-----------------|-----------------|--------------|--------------|
| Intellectual property rights | | | | |
| Acquisition value 1 Jan. | 3 427 | 3 079 | 3 428 | 3 079 |
| Increases | 277 | 350 | 277 | 350 |
| Decreases | -7 | -1 | -7 | -1 |
| Acquisition value before depreciation 31 Dec. | 3 697 | 3 427 | 3 698 | 3 428 |
| Total depreciation 1 Jan. | -2 394 | -2 126 | -2 395 | -2 126 |
| Depreciation for the financial year | -466 | -269 | -466 | -269 |
| Total depreciation 31 Dec. | -2 860 | -2 394 | -2 861 | -2 395 |
| Book value 31 Dec. | 837 | 1 033 | 838 | 1 033 |
| Development expenses | | | | |
| Acquisition value 1 Jan. | 0 | 0 | 2 483 | 2 483 |
| Acquisition value before depreciation 31 Dec. | 0 | 0 | 2 483 | 2 483 |
| Total depreciation 1 Jan. | 0 | 0 | -1 234 | -1 031 |
| Depreciation for the financial year | 0 | 0 | -203 | -203 |
| Total depreciation 31 Dec. | 0 | 0 | -1 438 | -1 234 |
| Book value 31 Dec. | 0 | 0 | 1 046 | 1 249 |
| Other long-term expenditure | | | | |
| Acquisition value 1 Jan. | 210 | 230 | 232 | 230 |
| Increases | 17 | 2 | 30 | 2 |
| Decreases | -4 | -22 | -4 | -23 |
| Acquisition value before depreciation 31 Dec. | 223 | 210 | 236 | 209 |
| Total depreciation 1 Jan. | -202 | -202 | -202 | -202 |
| Total depreciation 31 Dec. | -202 | -202 | -202 | -202 |
| Book value 31 Dec. | 21 | 8 | 34 | 8 |
| TOTAL INTANGIBLE ASSETS | 858 | 1 041 | 1 917 | 2 290 |

NOTES TO BALANCE SHEET, €1 000

| 14. TANGIBLE ASSETS | Foundation 2022 | Foundation 2021 | Group 2022 | Group 2021 |
|--|-----------------|-----------------|----------------|----------------|
| Land and water areas | | | | |
| Acquisition value 1 Jan. | 0 | 0 | 37 963 | 37 145 |
| Increases | 0 | 0 | 4 727 | 818 |
| Acquisition value before depreciation 31 Dec. | 0 | 0 | 42 689 | 37 963 |
| Book value 31 Dec. | 0 | 0 | 42 689 | 37 963 |
| Buildings and constructions | | | | |
| Acquisition value 1 Jan. | 191 | 191 | 571 727 | 539 823 |
| Increases | 22 | 0 | 143 | 32 044 |
| Decreases | 0 | 0 | 0 | -140 |
| Acquisition value before depreciation 31.12. | 213 | 191 | 571 870 | 571 727 |
| Total depreciation 1 Jan. | -173 | -166 | -145 748 | -127 962 |
| Depreciation for the financial year | -6 | -7 | -16 618 | -17 785 |
| Total depreciation 31 Dec. | -179 | -173 | -162 365 | -145 748 |
| Book value 31 Dec. | 34 | 18 | 409 505 | 425 980 |
| Machinery and equipment | | | | |
| Acquisition value 1 Jan. | 142 391 | 125 084 | 183 591 | 160 214 |
| Increases | 14 003 | 17 310 | 14 022 | 23 379 |
| Decreases | -44 | -3 | -40 | -3 |
| Acquisition value before depreciation 31 Dec. | 156 350 | 142 391 | 197 572 | 183 591 |
| Total depreciation 1 Jan. | -102 251 | -90 292 | -118 261 | -103 065 |
| Depreciation for the financial year | -14 232 | -11 959 | -18 400 | -15 193 |
| Foreign exchange difference | 0 | 0 | -4 | -4 |
| Total depreciation 31 Dec. | -116 484 | -102 251 | -136 666 | -118 261 |
| Book value 31 Dec. | 39 866 | 40 140 | 60 907 | 65 329 |
| Other tangible assets | | | | |
| Acquisition value 1 Jan. | 821 | 797 | 6 073 | 5 763 |
| Increases | 222 | 24 | 949 | 310 |
| Decreases | 0 | 0 | -10 | 0 |
| Acquisition value before depreciation 31 Dec. | 1 044 | 821 | 7 013 | 6 073 |
| Total depreciation 1 Jan. | -23 | -15 | -1 605 | -1 155 |
| Depreciation for the financial year | -11 | -8 | -453 | -450 |
| Total depreciation 31 Dec. | -34 | -23 | -2 057 | -1 605 |
| Book value 31 Dec. | 1 010 | 798 | 4 955 | 4 468 |
| Advance payments and work in progress | | | | |
| Acquisition value 1 Jan. | 6 676 | 6 212 | 23 367 | 44 310 |
| Increases | 5 198 | 12 518 | 44 029 | 30 191 |
| Decreases | -9 330 | -12 055 | -10 474 | -51 133 |
| Acquisition value before depreciation 31 Dec. | 2 544 | 6 676 | 56 923 | 23 367 |
| Book value 31 Dec. | 2 544 | 6 676 | 56 923 | 23 367 |
| TOTAL TANGIBLE ASSETS | 43 454 | 47 632 | 574 979 | 557 107 |

Aalto University group owns a significant amount of campus facilities located in Otaniemi, Töölö, and Kirkkonummi. The bookkeeping value of campus assets owned by mutual real estate companies was € 521 million (€ 498 million). An external service provider estimates the market value of campus assets yearly. The market value at the year-end was € 715 million (€ 715 million). The market value estimate is not reflected in the financial statements.

Aalto University uses its campus assets mainly in university's core activities and partly for rent. University rents campus space to collaboration partners, start-up companies, campus restaurants and other service providers. The turnover from renting was € 9 million (€ 8.8 million), and a total of 53 000 m² (47 500 m²) was rented at the year end.

NOTES TO BALANCE SHEET, €1 000

| 15. INVESTMENT GRANTS | Foundation 2022 | Foundation 2021 | | |
|---|-----------------|-----------------|--------------|---------------|
| Academy of Finland | 2 856 | 3 664 | | |
| Investment grant related refund liability on 31.12.2022 is €7 076 139 (in 2021 €6 327 617). | | | | |
| 16. CHANGES IN INVESTMENTS | Foundation 2022 | Foundation 2021 | Group 2022 | Group 2021 |
| Shares in Aalto Group companies | | | | |
| Book value 1 Jan. | 67 566 | 67 564 | 0 | 0 |
| Decreases | 0 | 3 | 0 | 0 |
| Increases | -700 | 0 | 0 | 0 |
| Book value 31 Dec. | 66 866 | 67 566 | 0 | 0 |
| Shares in associated companies | | | | |
| Book value 1 Jan. | 0 | 3 580 | 472 | 3 941 |
| Increases | 0 | 111 | 11 | 222 |
| Decreases | 0 | -3 691 | 0 | -3 691 |
| Book value 31 Dec. | 0 | 0 | 483 | 472 |
| Shares in jointly owned companies | | | | |
| Book value 1 Jan. | 4 441 | 4 441 | 0 | 0 |
| Increases | 0 | 0 | 0 | 0 |
| Book value 31 Dec. | 4 441 | 4 441 | 0 | 0 |
| Other shareholdings | | | | |
| Book value 1 Jan. | 9 507 | 5 022 | 11 677 | 7 192 |
| Increases | 709 | 4 624 | 709 | 4 624 |
| Decreases | -3 595 | -139 | -3 595 | -139 |
| Book value 31 Dec. | 6 621 | 9 507 | 8 790 | 11 677 |

NOTES TO BALANCE SHEET, €1 000

| 17. ENDOWMENT PORTFOLIO | Foundation 2022 | Foundation 2021 | Group 2022 | Group 2021 |
|--|------------------|--------------------------------|----------------------------|--------------------------|
| Endowment in fair value | | | | |
| Investments in equity funds | 618 282 | 726 950 | 618 282 | 726 950 |
| Investments in fixed income funds | 88 851 | 180 176 | 88 851 | 180 176 |
| Investments in alternative investments | 558 674 | 413 549 | 558 674 | 413 549 |
| Investments total | 1 265 807 | 1 320 676 | 1 265 807 | 1 320 676 |
| | Domicile | Aquisition value 31.12. | Market value 31.12. | Book value 31.12. |
| Funds * | | | | |
| AQR Managed Futures UCITS Fund | Luxembourg | 14 637 | 16 085 | 16 085 |
| AQR Style Premia All Country Equity Fund | Luxembourg | 114 832 | 143 011 | 143 011 |
| AQR Style Premia Offshore Fund | Cayman Islands | 24 648 | 24 920 | 24 920 |
| Black Diamond Credit Strategies Offshore Ltd | Cayman Islands | 15 308 | 16 631 | 16 631 |
| Brevan Howard Fund Limited | Cayman Islands | 18 889 | 21 825 | 21 825 |
| Capital Four Invest European Loan & Bond Fund | Luxembourg | 5 068 | 5 787 | 5 787 |
| Capstone Global (Offshore) Limited | Cayman Islands | 18 808 | 19 127 | 19 127 |
| Concordia G-10 Fixed Income Relative Value | Cayman Islands | 14 787 | 18 165 | 18 165 |
| Eaton Vance International Emerging Markets Local Income Fund | Ireland | 10 649 | 10 247 | 10 247 |
| iSharesMSCI Japan ESG Screened UCITS ETF | Ireland | 53 642 | 49 723 | 49 723 |
| iShares MSCI EM IMI ESG Screened UCITS ETF | Ireland | 47 770 | 40 268 | 40 268 |
| iShares MSCI Europe ESG Screened UCITS ETF | Ireland | 95 852 | 93 920 | 93 920 |
| iShares MSCI USA ESG Screened UCITS ETF | Ireland | 97 761 | 94 524 | 94 524 |
| iShares USD Treasury 7-10yr UCITS ETF | Ireland | 7 176 | 6 832 | 6 832 |
| Xtrackers MSCI AC World ESG Screened UCITS ETF | Ireland | 24 034 | 23 564 | 23 564 |
| Evli Finnish Small Cap B | Finland | 10 541 | 27 481 | 27 481 |
| Hamilton Lane Aalto Fund | Luxembourg | 155 393 | 226 339 | 226 339 |
| Hite Hedge Offshore Fund | Cayman Islands | 9 360 | 9 293 | 9 293 |
| Keynes Leveraged Quantitative Strategies Fund | Cayman Islands | 20 000 | 20 293 | 20 293 |
| Kirkoswald Global Macro Fund Ltd | Cayman Islands | 14 629 | 19 589 | 19 589 |
| LGT EM Frontier LC Bond Fund | Ireland | 16 936 | 17 567 | 17 567 |
| Lodbrok European Credit Opportunities Fund | Cayman Islands | 14 523 | 16 749 | 16 749 |
| Millstreet Credit Offshore Fund | Cayman Islands | 13 104 | 18 389 | 18 389 |
| Mirae Asset Asia Great Consumer Equity Fund | Luxembourg | 11 617 | 14 955 | 14 955 |
| MW Alpha Plus Fund | Ireland | 13 707 | 19 296 | 19 296 |
| MW TOPS China A Share | Ireland | 25 000 | 18 275 | 18 275 |
| OP-Euro A | Finland | 1 | 1 | 1 |
| OP-Obligaatio Prima A | Finland | 20 064 | 18 050 | 18 050 |
| P/E FX Strategy Fund | Ireland | 10 000 | 11 192 | 11 192 |
| Robeco QI Global Dynamic Duration | Luxembourg | 36 000 | 30 367 | 30 367 |
| Robeco QI IGD Conservative Equities | The Netherlands | 41 488 | 43 781 | 43 781 |
| Robeco QI IGD Momentum Equities | The Netherlands | 6 457 | 7 956 | 7 956 |
| Robeco QI IGD Quality Equities | The Netherlands | 5 964 | 8 013 | 8 013 |
| Robeco QI IGD Sustainable Multi-Factor Equities | The Netherlands | 29 559 | 29 765 | 29 765 |
| Robeco QI IGD Value Equities | The Netherlands | 5 739 | 8 255 | 8 255 |
| Sandbar Fund Limited | Cayman Islands | 15 000 | 13 311 | 13 311 |
| Schroder ISF Nordic Micro Cap | Luxembourg | 17 024 | 14 792 | 14 792 |
| Systematica Alternative Markets Fund | Cayman Islands | 8 855 | 15 899 | 15 899 |
| The Tudor BVI Global Fund | Cayman Islands | 15 070 | 20 078 | 20 078 |
| Two Sigma Absolute Return Enhanced Cayman Fund | Cayman Islands | 15 240 | 15 689 | 15 689 |
| Two Sigma Risk Premia Enhanced Cayman Fund | Cayman Islands | 14 461 | 14 862 | 14 862 |
| Whitebox Relative Value Fund | Cayman Islands | 20 592 | 20 940 | 20 940 |
| | | 1 130 185 | 1 265 807 | 1 265 807 |
| Short-term receivables | | | | |
| Other receivables and accrued income | | 2 198 | 2 198 | 2 198 |
| Fixed-term deposit and cash | | 24 789 | 24 789 | 24 789 |
| Endowment total | | 1 157 172 | 1 292 794 | 1 292 794 |
| *) Aalto University Foundation only invests in funds registered in domiciles which participate in automatic exchange of tax information under the Common Reporting Standards (CRS) or US Foreign Account Tax Compliance Act (FATCA). | | | | |
| Other shareholdings | | | | |
| IPR shareholdings | | 919 | 6 083 | 6 083 |
| Other shareholdings | | 537 | 537 | 537 |
| Other shareholdings total (foundation) | | 1 457 | 6 621 | 6 621 |

NOTES TO BALANCE SHEET, €1 000

| 18. LONG-TERM RECEIVABLES | Foundation 2022 | Foundation 2021 | Group 2022 | Group 2021 |
|-----------------------------------|-----------------|-----------------|--------------|--------------|
| Long-term loan receivables | | | | |
| Loans to group companies | 473 595 | 236 570 | 0 | 0 |
| Loans to associated companies | 2 000 | 2 000 | 1 000 | 1 000 |
| Total | 475 595 | 238 570 | 1 000 | 1 000 |

The loans granted to the subsidiaries are bullet loans and they mature between 2023-2027. The subordinated loan will be paid back between 2031-2035.

| Other long-term receivables | | | | |
|------------------------------------|---------------|------------|---------------|------------|
| VAT compensation | 1 760 | 325 | 1 760 | 325 |
| Derivate receivables | 12 057 | 0 | 12 057 | 0 |
| Total | 13 816 | 325 | 13 816 | 325 |

| 19. SHORT-TERM RECEIVABLES | Foundation 2022 | Foundation 2021 | Group 2022 | Group 2021 |
|-----------------------------|-----------------|-----------------|---------------|---------------|
| Accounts receivables | | | | |
| Less than 30 days | 30 700 | 31 527 | 31 957 | 33 131 |
| 30-180 days | 3 850 | 989 | 3 974 | 1 085 |
| 181-364 days | 377 | 537 | 377 | 539 |
| Over 364 days | 686 | 461 | 686 | 483 |
| Total | 35 613 | 33 514 | 36 995 | 35 238 |

| Other short-term receivables | | | | |
|-------------------------------------|---------------|----------------|---------------|---------------|
| Loans to group companies | 0 | 213 735 | 0 | 0 |
| Receivable, group companies | 503 | 488 | 0 | 0 |
| Collateral receivables | 0 | 2 240 | 0 | 2 240 |
| Advance payments | 33 | 15 | 33 | 15 |
| VAT receivables | 0 | 0 | 827 | 800 |
| VAT compensation | 1 970 | 1 645 | 1 970 | 1 645 |
| Derivate receivables | 1 894 | 1 062 | 1 894 | 1 062 |
| Other short-term receivables | 6 491 | 6 415 | 6 574 | 6 509 |
| Total | 10 892 | 225 602 | 11 299 | 12 273 |

| Prepaid expenses and accrued income | | | | |
|--|---------------|---------------|---------------|---------------|
| Accrued income endowment | 304 | 465 | 304 | 465 |
| Accrued income | 11 732 | 9 211 | 11 732 | 9 211 |
| Other prepaid expenses and accrued income | 2 188 | 1 659 | 2 392 | 1 989 |
| Total | 14 224 | 11 336 | 14 428 | 11 666 |

| | | | | |
|-------------------------------|---------------|----------------|---------------|---------------|
| Short-term receivables | 60 729 | 270 451 | 62 722 | 59 177 |
|-------------------------------|---------------|----------------|---------------|---------------|

| 20. VAT COMPENSATION | Foundation 2022 | Foundation 2021 | | |
|---|-----------------|-----------------|--|--|
| Gross expenses entitled to VAT compensation | | | | |
| Expenses in profit & loss statement | 108 953 | 103 469 | | |
| Expenses activated into fixed assets | 9 954 | 18 039 | | |
| Total | 118 907 | 121 508 | | |

| VAT compensation | | | | |
|--------------------------------------|---------------|---------------|--|--|
| On expenses | 22 242 | 24 179 | | |
| On fixed asset activations | 1 920 | 2 691 | | |
| Total VAT compensation | 24 162 | 26 869 | | |
| Received compensation from MEC | -20 494 | -22 292 | | |
| VAT compensation for the year | 3 668 | 4 577 | | |

| 21. SECURITIES IN CURRENT ASSETS | Foundation 2022 | Foundation 2021 | Group 2022 | Group 2021 |
|----------------------------------|-----------------|-----------------|------------|------------|
| Market value 31 Dec. | 34 972 | 0 | 44 080 | 9 503 |
| Book value 31 Dec. | 34 972 | 0 | 44 080 | 9 503 |

NOTES TO BALANCE SHEET, €1 000

| 22. EQUITY | Foundation 2022 | Foundation 2021 | Group 2022 | Group 2021 |
|----------------------------------|-----------------|-----------------|----------------|----------------|
| 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. | 445 618 | 445 618 | 445 618 | 445 618 |
| Increases, government capitalization | 7 065 | 0 | 7 065 | 0 |
| Capital reserve 31 Dec. | 452 683 | 445 618 | 452 683 | 445 618 |

| | | | | |
|---------------------------------|----------------|----------------|----------------|----------------|
| Operating equity 1 Jan. | 154 644 | 154 644 | 154 644 | 154 644 |
| Operating equity 31 Dec. | 154 644 | 154 644 | 154 644 | 154 644 |

| | | | | |
|--|---------------|---------------|---------------|---------------|
| Restricted funds Expendable 1 Jan. | 15 522 | 11 690 | 15 522 | 11 690 |
| Received donations | 8 145 | 6 851 | 8 145 | 6 851 |
| Use of funds | -3 529 | -3 019 | -3 529 | -3 019 |
| Transfer between funds | -99 | 0 | -99 | 0 |
| Restricted funds Expendable 31 Dec. | 20 039 | 15 522 | 20 039 | 15 522 |

| | | | | |
|--|---------------|---------------|---------------|---------------|
| Restricted funds Capitalizing 1 Jan. | 55 970 | 48 788 | 55 970 | 48 788 |
| Received donations and return on capital | 5 819 | 8 638 | 5 819 | 8 638 |
| Use of funds | -2 195 | -1 456 | -2 195 | -1 456 |
| Transfer between funds | 99 | 0 | 99 | 0 |
| Restricted funds Capitalizing 31 Dec. | 59 693 | 55 970 | 59 693 | 55 970 |

| | | | | |
|--|------------|------------|------------|------------|
| Entrepreneurship fund 1 Jan. | 170 | 459 | 170 | 459 |
| Capital transfer from Accumulated endowment returns fund | 2 000 | 1 600 | 2 000 | 1 600 |
| Use of fund | -2 009 | -1 889 | -2 009 | -1 889 |
| Entrepreneurship fund 31 Dec. | 161 | 170 | 161 | 170 |

| | | | | |
|----------------------------------|---------------|---------------|---------------|---------------|
| Tenure Track fund 1 Jan. | 25 397 | 26 015 | 25 397 | 26 015 |
| Capital transfer from net profit | 100 | 0 | 100 | 0 |
| Return on capital | 1 270 | 1 301 | 1 270 | 1 301 |
| Use of fund | -2 112 | -1 918 | -2 112 | -1 918 |
| Tenure Track fund 31 Dec. | 24 655 | 25 397 | 24 655 | 25 397 |

| | | | | |
|---|----------------|----------------|----------------|----------------|
| Accumulated endowment returns fund 1 Jan. | 335 043 | 324 204 | 335 043 | 324 204 |
| Capital transfer from endowment return | 215 272 | 41 179 | 215 272 | 41 179 |
| Capital transfer to Tenure track fund | -1 270 | -1 301 | -1 270 | -1 301 |
| Capital transfer to Entrepreneurship fund | -2 000 | -1 600 | -2 000 | -1 600 |
| Capital transfer to net profit | -27 835 | -27 439 | -27 835 | -27 439 |
| Accumulated endowment returns fund 31 Dec. | 519 211 | 335 043 | 519 211 | 335 043 |

| | | | | |
|---|----------------|---------------|----------------|----------------|
| Net profit/loss from previous years 1 Jan. | 278 957 | 85 961 | 297 154 | 105 350 |
| Changes in income and expenses in previous accounting periods | 0 | 0 | 0 | -15 |
| Capital transfer to Tenure track fund | -100 | 0 | -100 | 0 |
| Capital transfer from Tenure Track fund | 2 112 | 1 918 | 2 112 | 1 918 |
| Capital transfer to Entrepreneurship fund | 0 | 0 | 0 | 0 |
| Capital transfer from Entrepreneurship fund | 2 009 | 1 889 | 2 009 | 1 889 |
| Capital transfer to Accumulated endowment returns fund | -215 272 | -41 179 | -215 272 | -41 179 |
| Capital transfer from Accumulated endowment returns fund | 27 835 | 27 439 | 27 835 | 27 439 |
| Net profit/loss from previous years 31 Dec. | 95 541 | 76 028 | 112 905 | 95 403 |

| | | | | |
|--|----------------|----------------|----------------|----------------|
| Net profit/loss of the financial year | -64 635 | 202 929 | -68 025 | 201 752 |
|--|----------------|----------------|----------------|----------------|

| | | | | |
|---------------------|------------------|------------------|------------------|------------------|
| Total equity | 1 541 992 | 1 591 321 | 1 555 966 | 1 609 519 |
|---------------------|------------------|------------------|------------------|------------------|

NOTES TO BALANCE SHEET, €1 000

| | Fund equity 1 Jan. | Annual return | Received donations | Fund usage during financial year | Fund equity 31 Dec. |
|--|-----------------------|------------------|-----------------------|--|------------------------|
| 23. RESTRICTED FUNDS | | | | | |
| Aalto wide donation funds, capitalizing | | | | | |
| Aalto University general fund | 46 | 2 | 159 | 0 | 208 |
| Aalto wide donation funds, expendable | | | | | |
| Aalto helps fund | 5 | 0 | 0 | 0 | 5 |
| Aalto University general fund | 13 | 0 | 125 | -40 | 98 |
| Campus Development fund | 31 | 0 | 0 | -6 | 25 |
| Game Changers fund | 290 | 0 | 20 | -125 | 185 |
| Materials and Sustainability fund | 244 | 0 | 0 | 0 | 244 |
| MIDE fund | 1 | 0 | 0 | 0 | 1 |
| Scholars at Risk fund | 0 | 0 | 35 | 0 | 35 |
| Ukraine student support fund | 0 | 0 | 144 | -54 | 91 |
| Donation funds in field of Business and economics, capitalizing | | | | | |
| Cooperative business EiR fund* | 99 | 5 | 36 | -32 | 108 |
| Economics and data sciences professorship fund* | 1 940 | 97 | 250 | -176 | 2 111 |
| Field of Business and economics fund | 5 544 | 277 | 1 186 | 0 | 7 007 |
| G. W. Sohlberg fund | 134 | 7 | 0 | 0 | 141 |
| Gustav Paulig fund | 321 | 16 | 0 | 0 | 337 |
| K. H. Lehtinen fund | 72 | 4 | 0 | 0 | 76 |
| Lindfors fund | 343 | 17 | 0 | 0 | 360 |
| Matti Lehti fund | 140 | 7 | 0 | -4 | 143 |
| Nordea fund | 1 756 | 88 | 0 | -15 | 1 829 |
| Ownership professorship fund* | 1 838 | 92 | 449 | -147 | 2 232 |
| Oy Stockmann AB 100th Anniversary fund | 203 | 10 | 0 | 0 | 213 |
| Pohjola scholarship fund | 58 | 3 | 0 | 0 | 61 |
| Research scholarship fund | 634 | 32 | 0 | -15 | 651 |
| School of Business fund | 38 | 2 | 9 | 0 | 49 |
| School of Business service fund | 6 182 | 309 | 0 | -279 | 6 213 |
| School of Business support fund | 4 760 | 238 | 0 | -160 | 4 838 |
| Students' scholarship fund | 7 801 | 390 | 1 | -249 | 7 943 |
| Urban economics professorship fund* | 1 081 | 54 | 500 | -176 | 1 459 |
| Vakuutusosakeyhtiö Fennia fund | 1 004 | 50 | 0 | 0 | 1 054 |
| Weilin & Göös scholarship fund | 3 341 | 167 | 0 | 0 | 3 509 |
| Women's committee fund | 465 | 23 | 0 | -11 | 477 |
| Donation funds in field of Business and economics, expendable | | | | | |
| Field of Business and economics fund | 156 | 0 | 0 | 0 | 156 |
| Ownership fund | 0 | 0 | 21 | 0 | 21 |
| Students' scholarship fund | 13 | 0 | 0 | 0 | 13 |

*Hybrid fund: the return of the capital and the capital itself will be used.

NOTES TO BALANCE SHEET, €1 000

| | Fund equity 1 Jan. | Annual return | Received donations | Fund usage during financial year | Fund equity 31 Dec. |
|--|-----------------------|------------------|-----------------------|--|------------------------|
| 23. RESTRICTED FUNDS | | | | | |
| Donation funds in field of Science and technology, capitalizing | | | | | |
| Aleksander and Lucie Lampén fund | 2 605 | 130 | 0 | -91 | 2 644 |
| Alumni fund | 24 | 1 | 0 | 0 | 25 |
| Architect Annikki Paasikivi scholarship fund | 2 018 | 101 | 0 | -93 | 2 026 |
| Architect Väinö Vähäkallio scholarship fund | 1 155 | 58 | 0 | 0 | 1 213 |
| Architects' travel scholarship fund | 53 | 3 | 0 | -2 | 53 |
| Bioinnovation Centre professorship fund* | 2 500 | 125 | 0 | 0 | 2 625 |
| Combined student fund | 93 | 5 | 0 | -2 | 95 |
| Engineers' travel scholarship fund | 113 | 6 | 0 | -3 | 116 |
| Entrepreneurship support fund | 1 700 | 85 | 0 | 0 | 1 784 |
| Ernst Wirtzen fund | 189 | 9 | 0 | -4 | 195 |
| Fabian and Jaakko Ahvenainen fund | 1 790 | 90 | 0 | -21 | 1 859 |
| Field of Science and technology fund | 380 | 19 | 20 | 0 | 419 |
| Humanitarian architecture PoP fund* | 448 | 22 | 0 | -145 | 325 |
| Industrial Engineering and Management fund | 150 | 8 | 0 | 0 | 158 |
| Information networks PoP fund* | 88 | 4 | 60 | -121 | 31 |
| Julius Tallberg fund | 192 | 10 | 0 | -4 | 197 |
| Kansallis-Osake-Pankki fund | 119 | 6 | 0 | -3 | 122 |
| Matti Sundberg quality fund | 99 | 34 | 0 | -5 | 128 |
| Municipal wastewater treatment PoP fund* | 201 | 10 | 25 | -60 | 175 |
| Oiva Allan Pölkkyinen fund | 120 | 6 | 0 | -3 | 123 |
| Oy Strömberg Ab fund | 52 | 3 | 0 | -1 | 54 |
| Product-service systems sales PoP fund* | 181 | 9 | 20 | -97 | 113 |
| Professor E. J. Nyström fund | 2 188 | 109 | 0 | -59 | 2 238 |
| Professor Hannelius fund | 33 | 2 | 0 | -1 | 34 |
| Professor Nils Erik Wickberg fund | 874 | 44 | 0 | -33 | 884 |
| School of Chemical engineering fund | 1 | 0 | 0 | 0 | 1 |
| School of Electrical engineering fund | 2 | 0 | 1 | 0 | 3 |
| School of Engineering fund | 0 | 0 | 1 | 0 | 1 |
| School of Science fund | 0 | 0 | 4 | 0 | 4 |
| Smart buildings PoP fund* | -37 | 0 | 200 | -116 | 47 |
| Technology education PoP fund* | 110 | 5 | 0 | -57 | 58 |
| Teknos Winter Oy fund | 110 | 5 | 0 | -8 | 107 |
| Teräsbetoni Oy fund | 89 | 4 | 0 | -2 | 91 |
| Water engineering PoP fund* | 0 | 0 | 60 | 0 | 60 |

*Hybrid fund: the return of the capital and the capital itself will be used.

NOTES TO BALANCE SHEET, €1 000

| | Fund equity 1 Jan. | Annual return | Received donations | Fund usage during financial year | Fund equity 31 Dec. |
|--|-----------------------|------------------|-----------------------|--|------------------------|
| 23. RESTRICTED FUNDS | | | | | |
| Donation funds in field of Science and technology, expendable | | | | | |
| Aalto University Junior fund | 0 | 0 | 1 | 0 | 2 |
| Bioinnovation Centre fund | 4 555 | 0 | 3 000 | -769 | 6 786 |
| Building technology fund | 74 | 0 | 0 | 0 | 74 |
| Concrete technology research fund | 151 | 0 | 160 | -112 | 199 |
| DI Marja-Terttu Tanttinen fund | 10 | 0 | 0 | -1 | 9 |
| Engineerin design doctoral program fund | 70 | 0 | 70 | -14 | 126 |
| Field of Science and technology fund | 6 823 | 0 | 2 660 | -1 666 | 7 817 |
| Fire safety engineering professorship fund | 345 | 0 | 0 | -44 | 301 |
| Industrial Engineering and Management fund | | 0 | 25 | 0 | 25 |
| KAUTE fund | 43 | 0 | 0 | 0 | 43 |
| Maa- ja vesitekniiikan tuki ry fund | 200 | 0 | 0 | -9 | 192 |
| Macadamia Master's program supoort fund | 30 | 0 | 0 | -4 | 26 |
| Methanol research fund | 39 | 0 | 0 | -12 | 26 |
| Metsähovi space research fund | 267 | 0 | 0 | 0 | 267 |
| Norman Ernest Loveless fund | 452 | 0 | 0 | -195 | 257 |
| Oy Atlas Diesel Ab fund | 80 | 0 | 0 | -3 | 78 |
| Quantum technology doctoral program fund | -1 | 0 | 150 | -44 | 105 |
| Smart buildings doctoral school fund | 110 | 0 | 155 | -254 | 11 |
| Water management's water and depelopment fund | 427 | 0 | 0 | -116 | 311 |
| Wood material science teaching fund | 0 | 0 | 132 | 0 | 132 |
| Donation funds in field of Art and design, capitalizing | | | | | |
| Field of Art and design fund | 60 | 3 | 0 | 0 | 63 |
| Helmi Grönlund-Herlin fund | 569 | 28 | 0 | 0 | 598 |
| School of Arts, Design and Architecture fund | 1 | 0 | 3 | 0 | 4 |
| Donation funds in field of Art and design, expendable | | | | | |
| Design doctoral dissertation fund | 28 | 0 | 41 | -40 | 29 |
| Field of Art and design fund | 966 | 0 | 1 405 | -20 | 2 351 |
| Restricted funds total | 71 492 | 2 835 | 11 129 | -5 723 | 79 733 |

Restricted funds are used for university's operations as required by donors. Capitalizing funds receive return according to university's endowment spending policy. The funds are grouped by type and study field.

| | Fund equity 1 Jan. | Capital transfers | Fund usage during the financial year | Fund equity 31 Dec. |
|------------------------------------|-----------------------|----------------------|--|------------------------|
| 24. UNRESTRICTED FUNDS | | | | |
| Accumulated endowment returns fund | 335 043 | 215 272 | -31 105 | 519 211 |
| Tenure Track fund | 25 397 | 1 370 | -2 112 | 24 655 |
| Entrepreneurship fund | 170 | 2 000 | -2 009 | 161 |
| Total | 360 611 | 218 642 | -35 226 | 544 027 |

| | Foundation 2022 | Foundation 2021 | Group 2022 | Group 2021 |
|-----------------------------------|-----------------|-----------------|----------------|----------------|
| 25. LIABILITIES | | | | |
| Long-term liabilities | | | | |
| Loans from financial institutions | 300 076 | 274 034 | 306 192 | 280 003 |
| Advance payments | 190 | 172 | 190 | 172 |
| Investment grants | 5 140 | 4 550 | 5 140 | 4 550 |
| Derivate liabilities | 8 | 4 691 | 8 | 4 691 |
| Other long-term liabilities | 2 999 | 4 709 | 2 999 | 4 709 |
| Total | 308 413 | 288 156 | 314 529 | 294 125 |
| Short-term liabilities | | | | |
| Loans from financial institutions | 13 958 | 13 589 | 14 662 | 14 876 |
| Advance payments | 49 733 | 55 191 | 58 857 | 58 847 |
| Accounts payable | 10 676 | 9 683 | 15 064 | 16 723 |
| Accrued tax | 0 | 0 | 4 393 | 4 949 |
| VAT liabilities | 1 263 | 1 330 | 1 263 | 1 330 |
| Investment grants | 1 936 | 1 778 | 1 936 | 1 778 |
| Liabilities to group companies | 38 285 | 40 369 | 0 | 0 |
| Coordinated assets | 18 825 | 9 598 | 18 825 | 9 598 |
| Other short-term liabilities | 19 839 | 10 966 | 20 339 | 12 802 |
| Accrued salaries and wages | 20 132 | 19 557 | 20 581 | 21 618 |
| Other accrued expenses | 7 372 | 2 273 | 6 229 | 2 998 |
| Total | 182 019 | 164 333 | 163 232 | 145 542 |

OTHER NOTES, €1 000

| | Foundation 2022 | Foundation 2021 | Group 2022 | Group 2021 |
|------------------------------------|-----------------|-----------------|--------------|--------------|
| 26. LEASE CONTRACTS | | | | |
| Lease payments due within one year | 9 | 20 | 468 | 473 |
| Lease payments due later | 7 | 2 | 1 148 | 1 418 |
| Total | 16 | 22 | 1 616 | 1 891 |

| | Foundation 2022 | Foundation 2021 | Group 2022 | Group 2021 |
|--|-----------------|-----------------|---------------|---------------|
| 27. RENTAL AGREEMENTS (incl. VAT) | | | | |
| Rental agreement liabilities due within one year | 4 314 | 2 908 | 5 739 | 4 965 |
| Rental agreement liabilities due later | 11 082 | 1 581 | 19 761 | 13 842 |
| Total | 15 395 | 4 489 | 25 501 | 18 806 |

| | Foundation 2022 | Foundation 2021 | Group 2022 | Group 2021 |
|---|-----------------|-----------------|------------|------------|
| 28. MANDATORY PROVISIONS | | | | |
| Provision for an unused facility rental agreement | 0 | 0 | 0 | 54 |

| | Foundation 2022 | Foundation 2021 |
|--|-----------------|-----------------|
| 29. INVESTMENT COMMITMENTS | | |
| Commitment left €1 000 | | |
| Hamilton Lane Aalto Fund SICAV S.à.r.l, Luxembourg | 234 672 | 275 486 |

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

30. DERIVATIVE CONTRACTS

In the end of the fiscal year group derivatives include interest rate swaps and FX forward exchange agreements. Derivatives are not subject to hedge accounting. The university aims to keep the contracts to 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 current and expected loan portfolio against increase in market interest rates by converting floating interest rates into fixed rates. University's current interest rate swap agreements will mature from 2023 to 2040. Two of the agreements are forward starting. 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.

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 2022 the forward exchange agreements have been used to hedge against the foreign exchange risk of the investment portfolio.

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

| | Foundation 2022 | Foundation 2021 | Group 2022 | Group 2021 |
|------------------------------------|-----------------|-----------------|------------|------------|
| Interest rate swaps | | | | |
| Nominal value of contracts, €1000 | 121 875 | 123 750 | 121 875 | 125 750 |
| Fair value of the contracts, €1000 | 12 054 | -4 691 | 12 054 | -4 735 |

| | Foundation 2022 | Foundation 2021 | Group 2022 | Group 2021 |
|------------------------------------|-----------------|-----------------|------------|------------|
| Forward exchange agreements | | | | |
| Nominal value of contracts, €1000 | 188 299 | 166 522 | 188 299 | 166 522 |
| Fair value of the contracts, €1000 | 1 894 | 532 | 1 894 | 532 |

| | Foundation 2022 | Foundation 2021 | Group 2022 | Group 2021 |
|--|-----------------|-----------------|---------------|---------------|
| 31. LIABILITIES WITH PROPERTY COLLATERALS | | | | |
| Bank loans | 314 034 | 287 623 | 320 853 | 295 879 |
| Liabilities | 0 | 0 | 10 525 | 12 800 |
| Other loans | 0 | 0 | 1 000 | 1 000 |
| Liabilities | 0 | 0 | 1 000 | 1 000 |
| Total liabilities | 0 | 0 | 11 525 | 13 800 |

| | Foundation 2022 | Foundation 2021 | Group 2022 | Group 2021 |
|---|-----------------|-----------------|------------|------------|
| 32. LOANS WITH MATURING PERIOD OVER FIVE YEARS | | | | |
| Bank loans | 114 242 | 128 201 | 119 557 | 130 024 |

33. 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.

| | Foundation 2022 | Foundation 2021 | Group 2022 | Group 2021 |
|--|-----------------|-----------------|---------------|---------------|
| VAT Refund liability 31 Dec. | | | | |
| Completed projects (10 year revision period) | 0 | 0 | 37 330 | 45 342 |
| Work in progress | 0 | 0 | 12 654 | 3 938 |
| Total | 0 | 0 | 49 984 | 49 280 |

| | Foundation 2022 | Foundation 2021 | Group 2022 | Group 2021 |
|---|-----------------|-----------------|---------------|---------------|
| Total VAT relating to the investments under revision liability | | | | |
| Completed projects (10 year revision period) | 0 | 0 | 74 822 | 80 314 |
| Work in progress | 0 | 0 | 12 654 | 3 938 |
| Total | 0 | 0 | 87 476 | 84 252 |

OTHER NOTES, €1 000

34. VALUES OF FINANCIAL ASSETS AND LIABILITIES BY CATEGORY

| | Foundation 2022 | Foundation 2021 | Group 2022 | Group 2021 |
|-----------------------------|------------------|------------------|------------------|------------------|
| Investment assets | | | | |
| Valued at fair value | | | | |
| Investment funds | | | | |
| Level 1 | 1 039 468 | 1 159 315 | 1 039 468 | 1 159 315 |
| Level 2 | 0 | 0 | 0 | 0 |
| Level 3 | 226 339 | 161 360 | 226 339 | 161 360 |
| Total | 1 265 807 | 1 320 676 | 1 265 807 | 1 320 676 |
| Derivates | | | | |
| Level 1 | 0 | 0 | 0 | 0 |
| Level 2 | 1 894 | 532 | 1 894 | 532 |
| Level 3 | 0 | 0 | 0 | 0 |
| Total | 1 894 | 532 | 1 894 | 532 |

Reconciliation for Level 3 items

| | Foundation 2022 | Foundation 2021 |
|---|-----------------|-----------------|
| Balance 1.1. | 124 570 | 124 570 |
| Unrealized changes in fair value | 88 094 | 36 791 |
| Gains and losses on category 3 | 0 | 0 |
| New category 3 investments, acquisition value | 13 675 | 0 |
| Transfers from category 3 | 0 | 0 |
| Balance 31.12. | 226 339 | 161 360 |

Sensitivity analysis on category 3 31.12.2022

| | Changes in fair value | |
|-------------------------------|-----------------------|---------|
| | Profit | Loss |
| Change in market values (20%) | 45 268 | -45 268 |

| | Foundation 2022 | Foundation 2021 | Group 2022 | Group 2021 |
|------------------------------|-----------------|-----------------|----------------|----------------|
| Financial Assets | | | | |
| Valued at fair value | | | | |
| Securities in current assets | | | | |
| Level 1 | 34 972 | 0 | 42 872 | 9 503 |
| Level 2 | 10 033 | 0 | 10 033 | 0 |
| Level 3 | 0 | 0 | 0 | 0 |
| Total | 45 005 | 0 | 52 905 | 9 503 |
| Interest rate swaps | | | | |
| Level 1 | 0 | 0 | 0 | 0 |
| Level 2 | 12 062 | 0 | 12 062 | 0 |
| Level 3 | 0 | 0 | 0 | 0 |
| Total | 12 062 | 0 | 12 062 | 0 |
| Financial Liabilities | | | | |
| Valued at fair value | | | | |
| Interest rate swaps | | | | |
| Level 1 | 0 | 0 | 0 | 0 |
| Level 2 | 8 | 4 691 | 8 | 4 691 |
| Total | 8 | 4 691 | 8 | 4 691 |
| At amortized cost | | | | |
| Bank loans | | | | |
| Level 1 | 0 | 0 | 0 | 0 |
| Level 2 | 314 034 | 287 623 | 320 853 | 294 443 |
| Total | 314 034 | 287 623 | 320 853 | 294 443 |

Values correspond to the balance sheet values. During the financial year 2022 there were no transfers between categories.

OTHER NOTES, €1 000

35. FINANCIAL RISK MANAGEMENT

At Aalto University 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. The calculated effect of 20% corresponds to the risk level of the asset class.

| | Equity markets -20% |
|--------------------------|------------------------|
| Impact on the net profit | -153 747 |
| Impact on the equity | 0 |
| Total impact | -153 747 |

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. The calculated effect of 10% corresponds to the risk level of the asset class.

| | EUR appreciation versus all other currencies 10% |
|--------------------------|--|
| Impact on the net profit | -90 440 |
| Impact on the equity | 0 |
| Total impact | -90 440 |

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 raised 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 is described below. The change of one percent indicates well the significance of the impact.

| | Interest -1% | Interest +1% |
|-----------------------------------|----------------|---------------|
| Investment activities | | |
| Impact on net profit | -6 460 | 6 460 |
| Impact on equity | 0 | 0 |
| Floating rate loans | | |
| Impact on interest costs (annual) | 2 294 | -2 294 |
| Interest rate swaps | | |
| Impact on interest costs (annual) | -608 | 608 |
| Impact on change in market value | -8 163 | 8 163 |
| Total | -12 937 | 12 937 |

Liquidity risk

The university's liquidity risks are limited, as the investments are mainly implemented through 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 | 234 672 | 69 200 | 143 800 | 14 600 | 7 072 |
| Loans (capital and interests) | 368 715 | 22 553 | 211 222 | 83 653 | 51 287 |
| Leasing | 1 582 | 444 | 1 138 | 0 | 0 |
| Accounts payable | 15 064 | 15 064 | 0 | 0 | 0 |
| Total | 620 032 | 107 261 | 356 159 | 98 253 | 58 359 |

Commitments related to derivatives (net)

| | | | | | |
|----------------------|---------------|------------|---------------|---------------|---------------|
| Interest rate swaps | -9 464 | -1 027 | -2 886 | -2 433 | -3 119 |
| Currency derivatives | 1 894 | 1 894 | 0 | 0 | 0 |
| Total | -7 570 | 867 | -2 886 | -2 433 | -3 119 |

Commitments of group companies included in contractual and derivative related commitments

OTHER NOTES, €1 000

35. FINANCIAL RISK MANAGEMENT

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 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 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 being equal. The one percentage point reflects the biggest historical change.

| | -1% | +1% |
|--------------------------|----------------|---------------|
| Impact on the net profit | -18 140 | 18 140 |
| Impact on equity | 0 | 0 |
| Total | -18 140 | 18 140 |

36. LEGAL PROCEEDINGS AND OTHER COMPENSATION CLAIMS

The foundation had two dispute matters in process on 31.12.2022. Total estimated risk relating to these disputes is €250 000.

37. 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. No material changes has been made to the terms during 2022.

Liabilities for mutual real estate transactions

During 2019 Aalto University Foundation sold four mutual real estate companies: Koy Espoon Lämpömiehenkuja 2, Koy Espoon Maarintie 6, Koy Espoon Tekniikantie 3 and Koy Espoon Lämpömiehenkuja 3. Based on the contract of shares, seller has specific liability commitments, which may cause liability for damage when defused. Most essential commitments are the ones concerning establishment of the companies, renovation work done for tenants, period of guarantee for the construction work and redemption of the property (fully or partly).

Guarantees for building permit

University has given the city of Espoo a building permit guarantee of 147 140€.

| 38. AUDITOR FEES | Foundation 2022 | Foundation 2021 | Group 2022 | Group 2021 |
|-------------------|-----------------|-----------------|------------|------------|
| Audit fees | 54 | 51 | 158 | 147 |
| Tax advisory fees | 0 | 0 | 4 | 0 |
| Other fees | 101 | 50 | 103 | 54 |
| Total | 154 | 101 | 266 | 201 |

| 39. AVERAGE PERSONNEL | Foundation 2022 | Foundation 2021 | Group 2022 | Group 2021 |
|-----------------------|-----------------|-----------------|--------------|--------------|
| Teaching and research | 3 345 | 3 281 | 3 345 | 3 281 |
| Other personnel | 1 357 | 1 350 | 1 528 | 1 515 |
| Total | 4 702 | 4 631 | 4 873 | 4 796 |

| 40. MANAGEMENT COMPENSATION | Foundation 2022 | Foundation 2021 | Group 2022 | Group 2021 |
|--|-----------------|-----------------|------------|------------|
| Members of boards, the president and CEOs of group companies | 403 | 388 | 724 | 1 174 |

OTHER NOTES, €1 000

41. KEY FIGURES OF PERSONNEL ACCORDING TO MEC ACCOUNTING CODE (FOUNDATION)

| Personnel structure | Foundation 2022 | Women | Men | Foundation 2021 | Women | Men |
|---|-----------------|------------|------------|-----------------|------------|------------|
| FTE by personnel group | | | | | | |
| Academic career level 4 | 257 | 19% | 81% | 253 | 16% | 84% |
| Academic career level 3 | 508 | 29% | 71% | 501 | 30% | 70% |
| Academic career level 2 | 556 | 34% | 66% | 618 | 34% | 66% |
| Academic career level 1 | 1 061 | 32% | 68% | 1 050 | 32% | 68% |
| Other personnel | 1 978 | 53% | 47% | 1 977 | 53% | 47% |
| Total | 4 360 | 41% | 59% | 4 398 | 40% | 60% |
| Number of academic leaders | 87 | 23% | 77% | 85 | 22% | 78% |
| Number of full-time and part-time personnel | | | | | | |
| Full-time personnel | 3 526 | 42% | 58% | 3 523 | 40% | 60% |
| Part-time personnel | 1 225 | 45% | 55% | 1 128 | 45% | 55% |
| Number of international personnel | | | | | | |
| Teaching and research personnel | 1 359 | 30% | 70% | 1 315 | 28% | 72% |
| Other personnel | 255 | 49% | 51% | 224 | 50% | 50% |
| Share of fixed-term personnel | | | | | | |
| Teaching and research personnel | 80% | 33% | 67% | 81 % | 32% | 68% |
| Other personnel | 39% | 50% | 50% | 40 % | 51% | 49% |
| Personnel age structure | | | | | | |
| Under 20 years | 0% | 30% | 70% | 0 % | 43% | 57% |
| 20-29 years | 28% | 35% | 65% | 28 % | 34% | 66% |
| 30-39 years | 29% | 40% | 60% | 31 % | 40% | 60% |
| 40-49 years | 20% | 47% | 53% | 20 % | 47% | 53% |
| 50-59 years | 15% | 45% | 55% | 15 % | 44% | 56% |
| 60-79 years | 7% | 44% | 56% | 7 % | 41% | 59% |
| Average age of personnel | 39 | 39 | 38 | 39 | 39 | 39 |
| Average retirement age | 66 | 65 | 66 | 65 | 64 | 65 |
| Number of retirements | 55 | 42% | 58% | 49 | 41% | 59% |

| Salaries | Foundation 2022 | Foundation 2021 |
|---|-----------------|-----------------|
| Salaries and other compensations | 217 417 | 218 926 |
| Performance bonuses | not included | not included |
| Women's median salary compared with men's | | |
| Teaching and research personnel | 95% | 96% |
| Other personnel groups | 115% | 113% |
| Total | 97% | 95% |

Competence

| Personnel training (days) | Foundation 2022 | Foundation 2021 |
|---------------------------------|-----------------|-----------------|
| Teaching and research personnel | 38 526 | 23 245 |
| Other personnel | 8 375 | 11 370 |
| Total | 46 901 | 34 615 |

Wellbeing at work

| Personnel wellbeing survey result, scale 1-5 | Foundation 2022 | Foundation 2021 |
|--|-----------------|-----------------|
| Job satisfaction | - | 3.95 |
| Direct supervisor work | - | 4.20 |
| Competence, learning and development | - | 4.20 |
| Workplace culture | - | 4.04 |
| Absences due to sick leaves (days) | 19 406 | 13 720 |

| 42. RELATED PARTY FINANCIAL TRANSACTIONS | Grants and similar payments with no respective input received | Financial activities with respective input received | Income | Expenses | Receivables | Liabilities |
|--|---|---|--------------|---------------|----------------|---------------|
| Founders and their subsidiaries, Aalto University's subsidiaries | 0 | | 6 993 | 48 146 | 476 098 | 38 357 |
| Above parties' board members, CEOs and their substitutes, auditors, Aalto University's directors and any companies owned by aforementioned | 0 | | 41 | 4 616 | 0 | 43 |
| Family members of the above | 0 | | 0 | 175 | 0 | 0 |
| Total | 0 | | 7 034 | 52 937 | 476 098 | 38 401 |

OTHER NOTES, €1 000

43. SHARES IN OTHER COMPANIES

| | Domicile | Shares owned by Group |
|---|-------------|--------------------------|
| Aalto-yliopistokiinteistöt Oy | Espoo | 100% |
| Kiinteistö Oy Hgin Pohj. Hesperiankatu 23A | Helsinki | 50% |
| Otahalli Oy | Espoo | 50% |
| Aalto Holding Oy | Helsinki | 100% |
| Owned by Aalto Holding Oy | | |
| Aalto University Executive Education Oy | Helsinki | 100% |
| Unigrafia Oy | Helsinki | 31% |
| Funidata Oy | Helsinki | 19% |
| Unihome Oy | Helsinki | 19% |
| Owned by Aalto University Executive Education Oy | | |
| Aalto Executive Academy Pte Ltd | Singapore | 100% |
| Mutual real estate companies | | |
| Koy Bionova | Espoo | 100% |
| Koy Espoon Amfi | Espoo | 100% |
| Koy Espoon Betonimiehenkuja 5 | Espoo | 100% |
| Koy Espoon Kemistintie 1 | Espoo | 100% |
| Koy Espoon Konemiehentie 2 | Espoo | 100% |
| Koy Espoon Metallimiehenkuja 10 | Espoo | 100% |
| Koy Espoon Metallimiehenkuja 4 | Espoo | 100% |
| Koy Espoon Otakaari 1 | Espoo | 100% |
| Koy Espoon Otakaari 24 | Espoo | 100% |
| Koy Espoon Otakaari 3 | Espoo | 100% |
| Koy Espoon Otakaari 5 | Espoo | 100% |
| Koy Espoon Otakaari 7 | Espoo | 100% |
| Koy Espoon Puumiehenkuja 2 | Espoo | 100% |
| Koy Espoon Sähkämiehenkuja 4 | Espoo | 100% |
| Koy Espoon Tietotie 1 | Espoo | 100% |
| Koy Espoon Vuorimiehenkuja 1 | Espoo | 100% |
| Koy Espoon Vuorimiehenkuja 2 | Espoo | 100% |
| Koy Espoon Väre | Espoo | 100% |
| Koy Helsingin Runeberginkatu 14-16 | Helsinki | 100% |
| Koy Kirkkonummen Metsähovintie 114 | Kirkkonummi | 100% |
| Koy Otanimen Opiskelijakeskus | Espoo | 100% |
| Otaniemen Liikekeskus Oy | Espoo | 100% |
| Other holdings | | |
| DIMECC Oy | Tampere | 4% |
| CLIC Innovation Oy | Helsinki | 1% |
| Muovipoli Oy | Lahti | 9% |
| Vierumäen Loma-aika Oy | Heinola | 7% |
| Vierumäki Golf Oy | Helsinki | 0.2% |
| CSC-Tieteen tietotekniikan keskus Oy | Espoo | 0.2% |
| Spin out holdings | | |
| Agilefant Oy | Helsinki | 5% |
| Fepod Oy | Helsinki | 7% |
| Iceye Oy | Espoo | 1% |
| Koite Health Oy | Helsinki | 1% |
| Surgify Medical Oy | Helsinki | 4% |
| Xfold Imaging Oy | Helsinki | 13% |