

Aalto Handbook



To the reader

Aalto University was created in 2010 through the merger of the Helsinki School of Economics, the University of Art and Design Helsinki, and Helsinki University of Technology, each of which had their own operating principles and organisational structures. As is the case in any major organisational change, it has taken some time to formulate the Aalto University way of doing things. This version of the Aalto University quality manual, the *Aalto Handbook*, is a description of this shared way of organising the university's core activities – research and innovation, education, and art and creative practices – in a uniform way that meets high standards of excellence.

The goal of the *Handbook* is to provide the reader with an overview of the operations of our university. With its numerous references and links to more detailed guidelines, rules and process descriptions found on our websites (Inside, Aalto.fi), the handbook is a good practical guide for everyday work, and as such, also serves as orientation material for new students and employees. Each School has its own edition of the *Aalto Handbook*, which provides more detailed descriptions of the procedures and organisation of the School.

I hope that the *Aalto Handbook* encourages all members of the Aalto University community to comment on the operating principles of the university and to give feedback and, thus, to contribute to the development of the university's operations. Comments via [wiki](#) for the content of the Handbook are also most welcome.

Tuula Teeri

President

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Abbreviation	Name
AAC	University Academic Affairs Committee
AaltoDW	Aalto Data Warehouse
AaltoES	Aalto Entrepreneurship Society
AASG	Aalto Artistic Activity Steering Group
AEE	Aalto Executive Education
AFYE	Aalto First Year Experience
AMT	Aalto Management Team
AVP	Aalto Ventures Program
AYY	Aalto University Student Union
CAS	Campus Services
COS	Communication Services
DTSG	Steering Group for Digital Transformation and Enterprise Architecture
EHEA	European Higher Education Area
EU	European Union
FINEEC	Finnish Education Evaluation Centre
FIS	Financial Services
HOPS	Personal study plan
HR	Human resources
IP	Intellectual Property
IT	Information technology
ITS	IT Services
JUFO	Julkaisufoorumi – Finnish publication forum
KPIs	Key performance indicators
LES	Learning Services
LESG	Learning Steering Group
LSS	Leadership Support Services
MEC	Ministry of Education and Culture
PDCA	Plan, Do, Check, Act
PMT	President's Management Team
RAE	Research Assessment Exercise
RAI	Research, Art and Impact assessment
RIS	Research and Innovation Services
RISG	Research and Innovation Steering Group
RMP	Records Management Plan
S(A)AB	Scientific (and Artistic) Advisory Board
SAHA	Electronic document and records management system
SES	Secretarial Services
TEE	Teaching and Education Evaluation
TEK	Academic Engineers and Architects in Finland
TSS	Technical Support Services

INTRODUCTION

“The mission of the universities is to promote free research and academic and artistic education, to provide higher education based on research, and to educate students to serve their country and humanity. In carrying out their mission, the universities must promote lifelong learning, interact with the surrounding society and promote the impact of research findings and art and creative practices on society.

The universities must arrange their activities so as to assure a high international standard in research, education and teaching in conformity with ethical principles and good scientific practices.”

Universities Act (558/2009)

The *Universities Act* (Yliopistolaki 558/2009) sets the overall mission and quality framework for all university-level education in Finland. In addition to the *Universities Act*, the operations of Aalto University are governed by the *Implementation of the Universities Act* (Laki yliopistolain voimaannpanosta 559/2009), the *Government Decree on University Degrees* (Valtioneuvoston asetus yliopistojen tutkinnoista ja erikoistumiskoulutuksista 794/2004), the *Foundations Act* (Säätiölaki 109/1930) and respective Government Programme, Education and Research development plan, and four-year performance agreements between the Ministry of Education and Culture (MEC) and the universities, and the [Aalto University Foundation Constitution](#) and the mission thereof. [The Bylaws](#) approved by the Aalto University Foundation Board and [General Regulations on Teaching and Studying](#) approved by the Aalto University Academic Affairs Committee (Aalto AAC) constitute the university's highest internal instructions at university, school and department levels.

Aalto University maintains and develops its quality system to continuously enhance and improve the quality and transparency of its operations and to support its strategic management and activities on all levels following the European Higher Education Area (EHEA) principles and the changes in the operating environment of higher education institutions.

Quality management is included in the everyday activity of the university with the underlying idea of continuous improvement, the Plan, Do, Check, Act (PDCA) cycle, also known as the Deming cycle (see Figure 1).

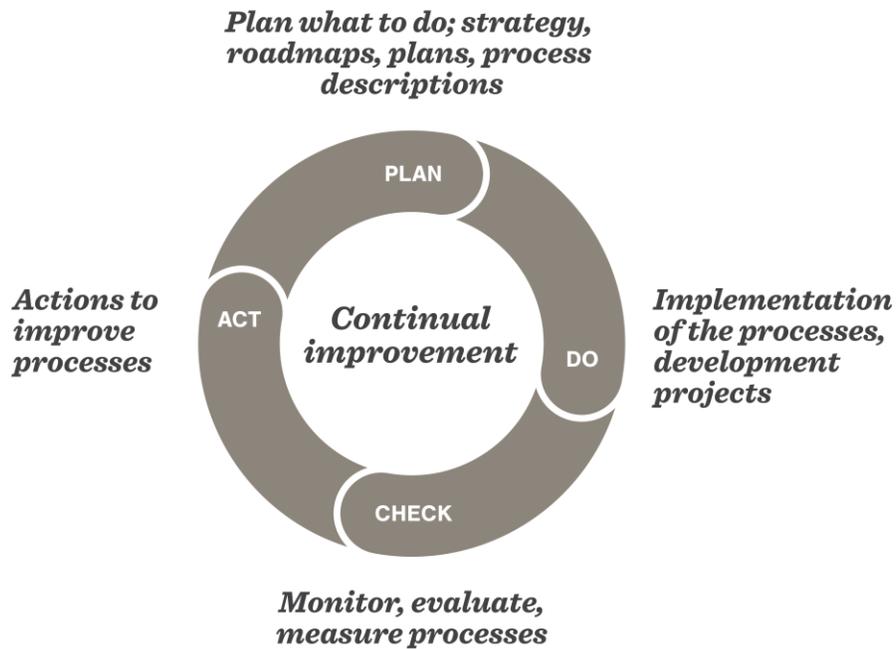


Figure 1. The principle of continuous improvement, the PDCA cycle.

This handbook describes the university's management procedure, quality policies and goals as well as the core activities and practices related to the assessment and development of activities. The *Aalto Handbook* provides internal and external stakeholders with an overview of the university's activities and their quality management. More detailed guidelines and process descriptions are given in the university and schools' intranet, [Inside](#), and the student website, [Into](#).

1. STRATEGY

According to Aalto University Bylaws, the university is a multidisciplinary science and art community in the fields of technology, business, and art and design. It is an international university that builds on Finnish strengths and makes active use of its multidisciplinary nature. The university's activities are based on research and art and creative practices, which form a solid foundation for educational, developmental and innovation activities.

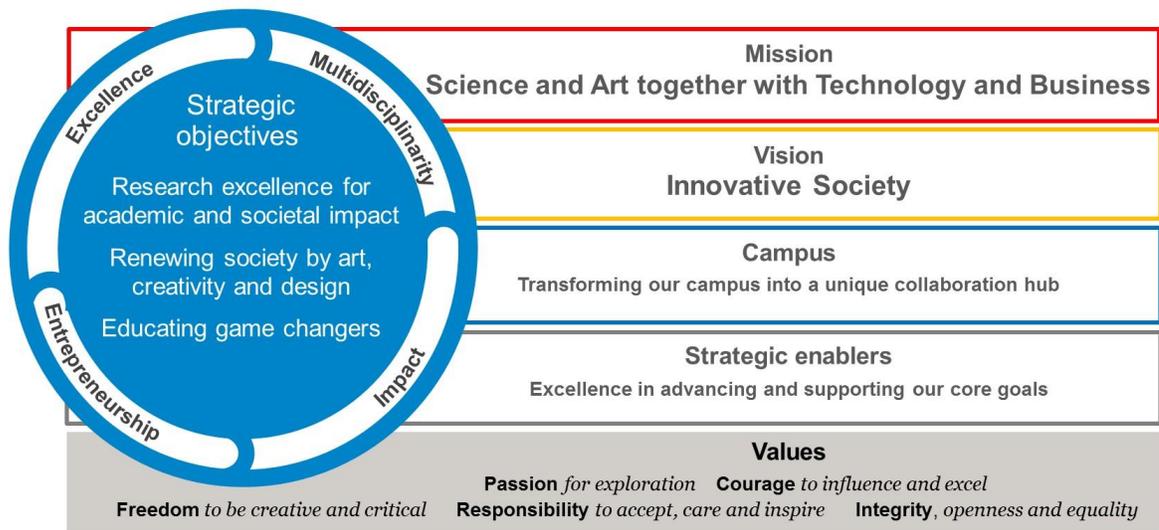


Figure 2. Aalto University strategy 2016-2020, *Shaping the future*.

Following its [strategy](#) (Edition December 2015, see Figure 2), Aalto University works towards a better future through research excellence, creative art and educating game changers, which surpasses traditional boundaries and enables renewal. The best connect and succeed at Aalto University, an institution internationally recognised for the impact of its science, art and learning. The university's operations and its strategic direction are based on its five values:

- passion for exploration
- freedom to be creative and critical
- courage to influence and excel
- responsibility to accept, care and inspire
- integrity, openness and equality.

Strategy process

The Aalto University Board initiates the strategy process, follows the progress of the process, provides guidance on key questions, and finally approves the strategy created and guidelines relating to its implementation.

The President leads the preparation of the strategy with the support of the Provost and Vice Presidents, and is responsible for organising the strategy work and ensuring the university community's commitment to and participation in the process.

The work preparing for a revision or update of the strategy consists of active monitoring of the university's operating environment and ongoing dialogue with international evaluation panels and external stakeholders and partners. Surveys, workshops and brainstorming sessions are typically used for gathering knowledge and understanding of the trends and weak signals to explore future prospects and phenomena both nationally and internationally.

The strategy guides the university's planning and target setting, and forms the basis for the university's operating principles. To implement the university strategy, the schools draw up their own, more detailed strategic plans.

2. GOVERNANCE

2.1 Organisation and decision making

Aalto University is comprised of six schools that are responsible for research and education in their fields in accordance with the university's joint policies, strategy, and annual strategic plan and budget:

- School of Arts, Design and Architecture
- School of Business
- School of Chemical Engineering
- School of Electrical Engineering
- School of Engineering
- School of Science

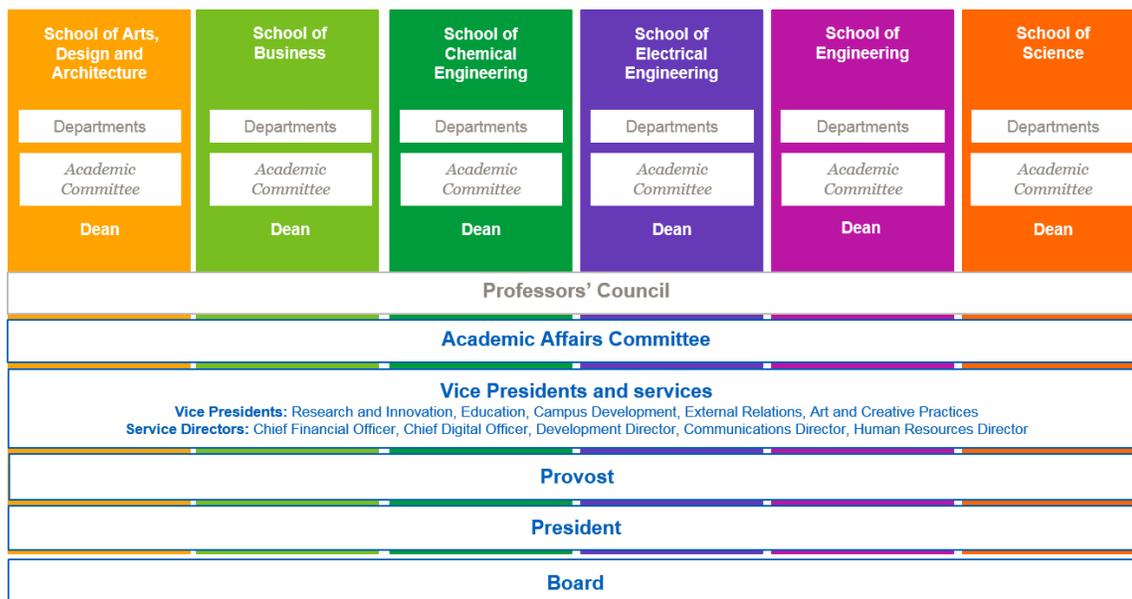


Figure 3. Aalto University organisation.

Roles

The executive bodies of the university are the [Board](#), the [President](#), and the Aalto Academic Committee [AAC](#). Their roles and responsibilities are described in the Aalto University Constitution and *Bylaws*. The Board has also adopted the rules of procedure of the Board to define its duties and operating procedures. The university also has a Provost and five Vice Presidents. The rules of procedure of the President and description of the responsibilities of the organisation supporting university leadership and decision making are found in the university intranet, [Inside](#).

The Board, appointed by the AAC, ensures that the operation of the university is appropriately arranged and its endowment is invested in a secure and profitable manner.

The Board decides on the strategy of the university, matters concerning university operations and finances, and other far-reaching plans.

The Board appoints the President to lead the university and to represent the science and art community constituted by it. The President in her/his role as the President (referred to in the *Universities Act*) also acts as the managing director (referred to in the Foundations Act). The President leads the long-term strategic development and strategic partnering of the university. The Board also appoints the Provost at the President's proposal. The Provost acts as Deputy President, supports the President in the strategic development of the university, and leads all the processes connected to teaching, research, art and creative practices, and societal impact. In addition to these roles, the Board appoints the Vice Presidents at unanimous proposal of the President and the Provost. Each Vice President is assigned a field of responsibility. The Board also appoints the Deans at the proposal of the President. The President appoints Deputy Deans of the schools at the proposal of the Dean of the school.

The President's Management Team (PMT) is an operative management team that prepares proposals for the decision of the President and the Board. The PMT is responsible for the implementation of Board decisions, and it is made up of two operative teams. The President's Executive Team ensures effective day-to-day operative management and communication of the university's operations as well as support of its academic leaders. The Provost's Operative Team coordinates the operative management of the university's academic activities to ensure efficient communication with and engagement of personnel and students.

The Aalto Management Team (AMT) discusses all issues brought to the Board for decisions and ensures transparency, engagement, shared understanding and communication of major decisions concerning the development of the university.

The AAC is a joint, multi-member, university-level administrative body referred to in the *Universities Act*. It decides on curricula, degree requirements and criteria for student selection, other general rules involving teaching, research and artistic activity, as well as appoints the required bodies to arrange research and teaching. The AAC also appoints the members of the Aalto University Board at the proposal of the Board Nomination Committee.

The Professors' Council acts as an advisory council to university leadership, and as the voice of the science and art community on fundamental questions related to the university's strategy, its values and operations.

The Deans head the schools and report to the Provost. Each Dean appoints the Heads of the school's departments. Each school has its own academic affairs committee, chaired by the Dean, handling school-specific academic matters delegated to it by the Aalto university's AAC.

The university management, preparation of decisions and new initiatives are supported by steering groups. The Provost appoints a Chair to each steering group and approves the composition of the groups. The steering groups include:

- Research and Innovation
- Education
- Art and Creative Practices
- Campus Development
- Digital Transformation and Enterprise Architecture.

In addition, there is a university-level Tenure Track Committee preparing tenure decisions for the President. Further, each school has its own Tenure Track Committee supporting the Dean in tenure track recruitment and promotion decisions.

University personnel and the student body are given opportunities to be heard in the preparation of important, long-term decision making by various means, for example, workshops and electronic discussion forums. Aalto University's administrative and support services are organised in service entities described in Section 7.4. Vice Presidents and Service Directors lead the service entities. Service entity leaders report to the President or to the Provost, depending on the service function. See Section 7.4 for the acronyms and for more detailed information on services.

Further information: [Actors](#).

Principles of operation and decision making

Aalto's joint principles and regulations to guide operations ensure uniform operating methods and equal treatment of people at the university. The President approves the university's joint principles and regulations, and the Board confirms them in the manner required by the [Aalto University Bylaws](#) .

Decision making at the university is governed by the university's strategy, values and the following key principles:

- goal orientation and high quality
- openness and transparency
- impartiality, fairness and responsibility
- accessibility
- sustainable development
- equality
- good management and service
- the central role of the Board, President and Deans
- management teams to assist the President and Deans
- academic and service directors involved in the management teams; ensuring cooperation with the university's personnel and students at all levels.

The President is responsible for preparing and presenting matters to the Board and responsible for executing Board decisions. The decisions are documented in writing and disseminated to the Aalto community in appropriate ways. The main channel of information regarding university administration is the Aalto University intranet, Inside.

Further information: [Decision making](#)

2.2 Management processes

2.2.1 Strategic planning and implementation

The strategy guides the university's planning and target setting, and forms the basis for the university's operating principles. To implement university strategy, the schools and

departments draw up their own, more detailed, strategic and action plans for implementation.

The university's strategy acts as the basis for negotiations of the four-year Performance Agreements between the MEC and Aalto University. The shared goals of the higher education system, university-specific measures and degree targets, as well as the funding granted to the university, are agreed on in these negotiations. Based on the *Universities Act*, the MEC grants core funding to the universities for their statutory duties during the agreement period using a model that considers strategic funding as well as the financing of education, research and other education and science policy objectives. Additionally, the performance agreement determines the manner in which the implementation of the targets will be reported. The MEC follows the implementation of the agreement and the execution of university strategy, and provides feedback on a regular basis. The MEC pays each university one steering-related higher education visit during the agreement period.

The most central task in strategic planning and management is to ensure the implementation of the university's strategy. Strategy implementation is supported by an annual clock of the university (see Figure 4). This strategy planning is guided by three key management processes: the Annual/Management Review, Strategy Dialogues and Resource Dialogues.

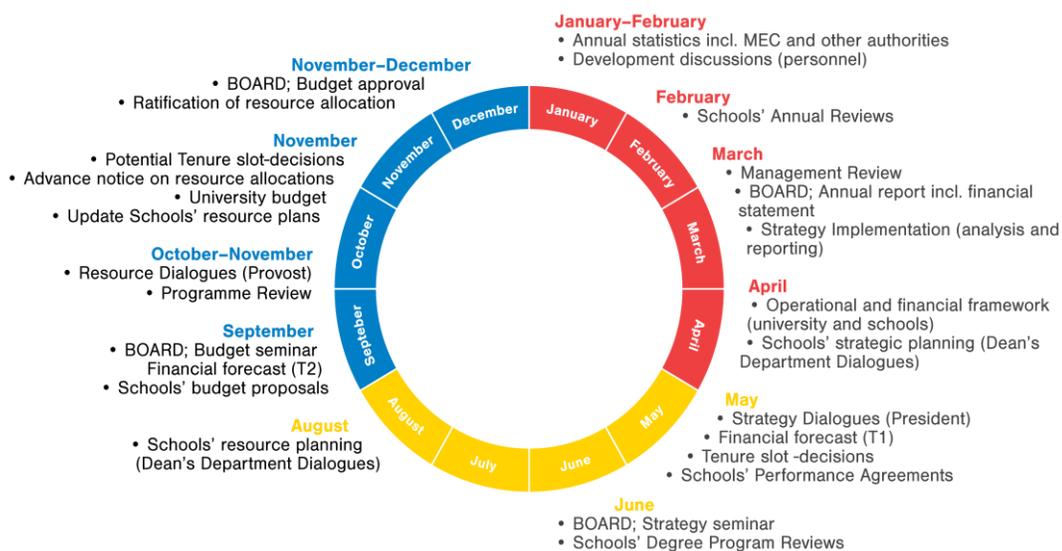


Figure 4. The annual clock of Aalto University's strategic management.

The reviews, such as Annual reviews in the schools and the Management Review at the university level, support the monitoring of implementation of the university's strategy and quality management, and provide feedback and development ideas for the strategic planning of the university and schools. The review process culminates in the Strategy Dialogues led by the President and carried out between the schools and the university in April-May. Strategy Dialogues focus on specifying the strategic development objectives. Both the short-term targets for the upcoming year and the longer-term targets for the following three-year period, including target values for key performance indicators (KPIs), are discussed and agreed upon, and recorded in each [school's Performance Agreement](#) between the President and the Dean. In addition, new tenure track positions and the prioritisation of strategic initiatives and major investments in infrastructure are discussed in the Strategy Dialogue, and decisions on these are made after the dialogue. The Strategy Dialogues are based on annual updates of strategic plans prepared by the

schools. As of 2017, the Strategy Dialogue process is extended to also cover the university services and joint initiatives.

The Performance Agreements and other decisions based on the Strategy Dialogues provide the basis for the schools to prepare for the Resource Dialogues. The schools' internal resource planning start in the autumn and culminates in the Resource Dialogues, held in October-November under the leadership of the Provost. The university budget is approved by the Board in December and is based on the university's long-term financial planning and the annual resource planning of the schools and joint services. The President makes school-specific funding decisions on the basis of the university budget, the Resource Dialogues and the Aalto University internal funding model. The Dean makes the school's internal funding decisions. Ratification of the resource allocation takes place in December after the Board has approved the university budget.

Funding model

Resource allocation is based on the Aalto University [internal funding model](#), which creates a predictable and transparent basis for funding allocation to the schools and provides incentives for activities that meet the university's strategic objectives and cost effectiveness. The funding model allocates all available funding to the schools, and they are correspondingly charged for the costs of joint services and space costs to enable better dimensioning and resourcing of services to respond to the needs of research and education activities. The schools allocate the received funding to the departments based on that school Dean's decision.

Aalto University's funding model has been revised for the period 2017-2020. The model guides the allocation of government and endowment funding of the University from the President to the schools.

The revised funding model supports Aalto University's updated strategy by rewarding academic results and achievements, and by supporting initiatives that contribute to multidisciplinary and entrepreneurship, for example. The funding model is aimed at providing stable basic funding of long-term academic work in the best possible way.

The funding model consists of four parts.

Excellence funding rewards exceptional achievements in research, education, art and creative practices, innovation and entrepreneurship. The share of this funding is 5–10%. The indicators include top publications, Academy of Finland Centres of Excellence and Academy Professors, ERC funding, high-quality art and creative practices, and significant strategic partnerships.

Joint strategic initiatives funding has a share of about 10% in the funding model. This funding includes activities related to multidisciplinary, the innovation ecosystem and entrepreneurship, and the major shared transformation programmes, digitalisation and campus development.

About 80% of this funding is block funding, and it is divided into two sections of about 40%.

Input-based block funding comprises funding for tenure track slots in the key research areas and funding of significant research infrastructures. **Output-based block funding** is granted on the same grounds as the MEC funding: degrees, points from publication forums (*Julkaisufoorumi* or JUFO), competitive research funding, artistic outputs, students with more than 55 annual credits, student feedback, international students and employed graduates.

	Research	Art & Creative practices	Education
Excellence funding	Top publications; Number of CoE, ERC, Academy professors, Aalto distinguished professors	Top 10 artistic forums	Exceptional achievements in education
	Significant strategic non-academic partnerships, exceptional innovation & entrepreneurial success		
Joint strategic initiatives funding	Multidisciplinary activities		
	Promotion of innovation eco-system and entrepreneurship		
	Digital & Campus transformation		
Block funding***	Input based block funding: Tenure slot* and significant infrastructure funding		
	Doctoral degrees; International research funding; JUFO publications; Competitive research funding	Output based block funding Artistic outputs	Master's & Bachelor's degrees**; Students with 55+ credits; Student feedback; Employed graduates; Masters by Foreign Students

*) Allocated to tenure slots to Aalto four competence areas and three integrative multidisciplinary themes, incl. field specific cost multiplier
 **) Virtual degrees (i.e. funding is allocated to schools that have contributed to the study credits of the degree)
 ***) incl. possible school development funding for 2017-18

Figure 5. Indicators for the Aalto University funding model (2016-20).

Personnel's commitment to the university's strategy and its execution requires planning and target setting at the individual level. The goals based on school and unit objectives are agreed in the annual objective discussions between an employee and his or her supervisor.

The strategic management of the schools led by the Deans is described in each school's handbook.

Further information: [Strategic management and objective setting](#)
[Aalto University funding model handbook](#)

Operative management and reporting

The President is supported by the university's management teams to lead the university and has the overall responsibility for the operative management, reporting and foresight at the university level. Operative management practices are seamlessly integrated with financial and human resources (HR) management and reporting practices. Reviews of university and school activities, results and forecasts are compiled in conjunction with the annual Management Review process. The most important report of the university, the annual report, is published in Finnish and English on aalto.fi.

The President is responsible for university finances. To support management and decision making, a financial review for the relevant bodies is compiled at all organisational levels three times per year (the end of April, August and December) and reported to the Board.

The university leadership supported by HR services is responsible for the design and implementation of strategic HR plans and joint operating principles related to personnel structure, employee wellbeing, rewarding schemes, development and management for the university and the schools, as well as for monitoring and reporting on the agreed guidelines and measurements for the reviews.

The relevancy of the university's core activity, management and support processes for academic personnel and students, as well as providing data on the functioning of the university for internal and external stakeholders, is the responsibility of the process owners. A process owner plans, develops and evaluates the process, forecasts resource needs, and monitors and reports on the realisation of annual targets to the management. The university leadership reviews the processes in the Management Review (see Section 2.2.2.).

The university quality system produces quantitative and qualitative information on the university's core activities and services for strategic and operative management. This information is collected and stored in information technology systems (IT systems). From operative systems, information is transferred to Aalto University's data warehouse (AaltoDW) to ensure it can be exploited efficiently in management and decision making.

Comprehensive, unit-specific information on students, study attainments, staff, finances, facilities, scientific publications, and other scientific and art and creative practices stored in AaltoDW is available internally and can be reported both in standard and tailored reports through the Aalto Sampo reporting tool. Aalto Sampo supports decision making as well as monitoring different activities and outcomes by providing up-to-date numeric information on university activities.

The IT systems' hierarchy, scope and relevance are regularly reviewed by the Steering Group for Digital Transformation and Enterprise Architecture (DTSG) to ensure they match the university's needs adequately.

The university has commissioned an electronic document and records management system (SAHA) to support its official decision-making and management processes. All official and other important documentation is kept in the system in electronic format. Aalto University has a [Records Management Plan](#) (RMP) to direct activities regarding the information stored in SAHA. The RMP provides the guidelines for managing, storage and disposal of documentation stemming from all of the university's activities. Aalto University's [archives and registry](#) are located on the Otaniemi campus.

The dissemination of administrative regulations, guidance and general information regarding the university's activities is performed through various formal and informal channels, and the information is stored and available on Inside. The main instruments are the [President's and Dean's decisions](#).

Finnish universities report on their activities and results to the MEC and to Statistics Finland. The information of these annual statistics is mostly public and available in the web pages of those organisations, Vipunen (in Finnish) and Statistics Finland.

Further information: [Operative management and resourcing](#)
[Execution and reporting](#)

2.2.2 Evaluation and continuous improvement

According to Section 87 of the *Universities Act*, universities must evaluate their education, research, and art and creative practices and the impact thereof. The universities shall also take part in external evaluation of their activities and quality assurance systems on a regular basis.

Aalto University performs both internal and external evaluations and surveys of its activities at all levels, according to a multi-year evaluation programme (see Figure 6).

Leadership Support Services (LSS) is responsible for preparing the programme and coordinates implementation as commissioned by the PMT. The execution of the programme and updating needs are assessed in the annual Management Review. The [evaluation reports](#) are available on Inside.



Figure 6. Aalto University evaluation programme.

Internal evaluations are performed by an evaluation group assembled on a case-specific basis. The university's evaluation program, the HR Strategy for Researchers, known as HRS4R, identifies a responsible body, which plans and coordinates the implementation of the evaluation. The President or the Dean appoints the evaluation groups. The university has general instructions for performing internal evaluations available for Aalto University units on Inside. **External evaluations** of quality systems and accreditations are performed regularly by external evaluation groups appointed by the auditing or accreditation body. An evaluation of the entire university or the particular target entity is carried out as specified by the evaluating body. Based on the collected data (including self-assessments and possible site visits), the evaluation or audit group writes an evaluation report and development recommendations that are addressed in the annual Management Review, and the President makes decisions on these improvement measures. The management of an evaluation target is responsible for implementing the measures as part of everyday activities and their development. Aalto University regularly executes international Research and Teaching Evaluations.

International rankings provide feedback in an internationally commensurable manner and strengthen Aalto University's global visibility. However, as rankings remain methodologically problematic, Aalto University does not define its strategic goals or measure its success in terms of ranking positions. LSS monitors the development of major rankings and analyses the information. The university cooperates with major international rankings and seeks to promote better understanding of rankings and their methodologies.

Management Review at the university level, and the preceding school-level Annual Reviews (held February-March), are a key channel for reviewing the functioning of the university's quality system. In addition to operational results at the university and school levels, feedback from surveys, internal and external evaluations, audits and other channels are assessed against previously agreed target values and development

measures. Under the direction of the President, the PMT is responsible for the Management Review at the university level, and the LSS coordinates matters for presentation. [The Management Review](#) also assesses the relevancy of the university's enablers for academic personnel and students. A summary of the Management Review includes the development areas and actions. The status of development areas is reviewed in a subsequent Management Review.

Key data for both internal and external assessment and evaluation purposes is obtained from the university's IT systems and is systematically used throughout the strategic planning and management processes of the university and schools.

The feedback systems for core activities and regular self-assessment practices of the schools are described in the schools' handbooks.

2.3 Quality management

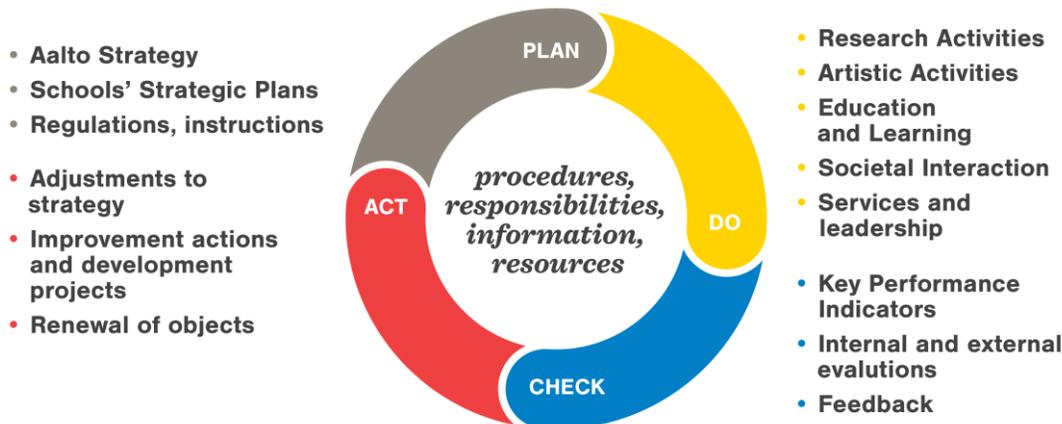


Figure 7. Aalto University's quality system.

2.3.1 Quality work at Aalto University

Quality Policy

Aalto University quality policy and management are based on the principle of continuous development, or the PDCA cycle (see Figures 1 and 7). The PDCA is embedded in all processes and everyday activities of the university.

The quality policy refers to the following principles governing the activities of Aalto University:

- pursuit of excellence in all activities
- every member of Aalto community contributes to the common mission
- continuous assessments and development of all activities and management

- systematic and shared ways to ensure high quality and effectiveness in activities.

Quality system

The quality system is a management tool for the realisation of the university's quality policy and defines the quality management organisation, division of responsibility, procedures and resources. The objectives set for the quality system are to do the following:

- support achievement of the university's strategic objectives and the goals set for activities, and to ensure the high quality of university activities and results
- reinforce a joint quality culture and the participation of students, personnel and external stakeholders in the planning, implementation, evaluation and development of university activities
- clarify and harmonise procedures as well as the roles and responsibilities of various actors
- disseminate uniform operating methods and best practices throughout the organisation
- ensure the reliability of quantitative and qualitative information used for planning, management, monitoring and development of activities
- identify, document and develop key operating processes based on systematic feedback
- maintain and strengthen openness and transparency.

Organisation of quality management

The President is responsible for the quality management of the university and provides direction on the university's quality issues with the PMT.

The PMT functions as the steering group for the university's quality work. The Head of Planning and Management presents issues relating to quality and the quality system to the Management Team in its meetings. The President reports on the quality of the university operations and their development to the Board.

Continuous, practical, quality work at Aalto University is coordinated by LSS with the support of the quality network. For more details about the quality management actors and their responsibilities, see Table 1; Division of responsibilities for quality work at Aalto University.

Table 1. Division of responsibilities for quality work at Aalto University.

Actor	Role and responsibility	Reporting / communication
Board	Decides on strategy of the university, matters concerning university operations and finances, and other far-reaching plans	Interest groups
President	Overall implementation of strategy including quality management and the quality system as a part of strategic management Overall quality of activities and results	Board
Provost	Supervising the quality management of research, teaching, art and creative practices, academic careers and societal impact processes of the university	President
Vice Presidents	Quality management and quality system of their assigned areas of responsibility	Provost
Head of Planning and Management Support	Managing the quality system at the operative level	Provost
Senior adviser (QM)	Coordinating development of the quality system and the feedback system as a whole	Head of Planning and Management Support
University Academic Affairs Committee (AAC)	Promoting high quality of research, teaching and artistic activity Deciding on general rules and regulations concerning education	Aalto community
Aalto Management Team (AMT)	Discussing all issues brought to the Board and decided by the Board Ensuring transparency, engagement, shared understanding and communication of major decisions concerning development of Aalto University	President
President's Management Team (PMT)	Steering committee for quality work Ensuring information produced by the quality system is utilised systematically in all decision making Supporting the President in planning and developing university activities	President
Service Directors	Ensuring the implementation of the quality system in service entities and disseminating quality awareness in respective activities throughout the university	President

Dean	Overall implementation of the school's strategic plan, including quality management as a part of strategic management	Provost
Head of Department	Overall implementation of the department's action plan, including quality management and the quality system as a part of strategic management	Dean

Documentation

Aalto Handbook is an introduction to the university quality system and is compiled and maintained by LSS and approved by the President. The school editions of the *Aalto Handbook* provide more detailed information and clarify the content of the university handbook in the school context. The dissemination of quality documents and records is done through Inside, in both in Finnish and English. Other key documents of the university quality system, such as bylaws, President's decisions, review and assessment reports and process descriptions are also available on Inside.

2.3.2 External and internal quality assessments

The functioning and impact of the university's quality system is evaluated every sixth year by an external audit body. The Finnish Education Evaluation Centre (FINEEC) is responsible for arranging the external quality audit of the entire quality management system.

Each Aalto University school has a [Scientific Advisory Board \(SAB\) or Scientific and Artistic Advisory Board \(SAAB\)](#) to support assessment of research and art and creative practices and any resulting actions taken. The research conducted at Aalto University is also subjected to an international research evaluation (Research Assessment Exercise, RAE or Research, Art and Impact assessment, RAI) to evaluate the scientific quality and societal impact of the research and to identify research with world-class potential. An equivalent external evaluation, the Teaching and Education Evaluation (TEE), is also carried out at regular intervals on the education offered at Aalto University.

The university has implemented an internal self-assessment procedure, which ensures that the quality management system is continuously updated and developed. Early in the calendar year, self-assessment of core activities takes place, preceding the Annual Reviews at the schools and the university Management Review conducted each spring. In the Management Review, the PMT addresses feedback (obtained from surveys, internal and external evaluations, audits and through various feedback channels) and agreed-on development measures and responsibility for them. The degree programmes' self-assessments take place in autumn after the end of the academic year.

The strategic objectives, including KPI targets, are regularly followed, lessons learned and future actions planned and agreed upon within a framework of continuous dialogues at different levels (President and MEC, President and the schools, school and the departments, development discussions of the employees) as set by the annual clock (see Figure 4).

2.4 Risk management and Internal control

2.4.1 Risk management at Aalto University

Risk management is a continuous process and an essential part of Aalto University's strategic and operative planning as well as a daily decision-making process and internal control. Risk Management is integrated into the processes of Aalto University and aligned with strategic objectives of the university. With risk management, the management and the Board can achieve reasonable assurance that the risks threatening the achievement of the university's objectives are better managed. The risk management principles and responsible actors are described in the [Risk Management Policy](#) approved by the Board.

The objective of risk management at Aalto University is to:

- identify risks that might threaten the university achieving its strategic targets and to identify events that, if they occur, will affect it
- ensure that the university accepts and manages risks appropriately to pursue its strategic targets while avoiding excessive risk, and that the university's response to risk – whether by insurance, risk mitigation measures or avoidance of risk – is proportionate, effective and within the risk appetite of the university.

Risk management covers all risks: strategic risks and operational risks (including financial risks), focusing on risks that may threaten the university's short- and long-term objectives. Special attention is given to controlling strategic and financially significant risks.

The risk management process at Aalto University is based on an internationally accepted standard ISO 31000:2009. The process includes risk assessment (including risk identification, risk analysis and risk evaluation) as well as risk reporting and monitoring.

Key guiding principle of risk management is "everyone is responsible". This means that Aalto University's Board, management and personnel are together responsible for proper execution of risk management within their area of responsibility. The responsibility for the implementation of the risk management system is delegated to the President and PMT. The Board provides strategic advice and challenges to assist the President in fulfilling this responsibility.

Organisation of risk management

The key actors and their main responsibilities in the daily risk management of the university are listed in Table 2.

Table 2. Actors, their roles and responsibilities in risk management at Aalto University.

Actor	Roles and responsibilities	Communication
Board	<p>Adopts the Aalto University Risk Management Policy</p> <p>Determines the university's risk appetite as part of its duty to decide the strategy, annual plan and budget of the university and other matters significant or far-reaching</p> <p>Annually reviews the material risks associated with Aalto University's operations and management of such risks</p> <p>Evaluates the effectiveness of the risk management based on the advice of the Audit Committee</p>	Interest groups
Audit Committee	<p>Provides audit assurance that risk management activities are aligned with Risk Management Policy and that risk assessments are used to focus internal control activities</p> <p>Reviews the Risk Management Policy annually</p>	Board
President	<p>Ensures that university's risk taking is in line with the Board's policies and instructions</p> <p>Informs the Board about university's risk taking</p> <p>Responsible for day-to-day management of the university in accordance with the instructions and orders given by the Board</p>	Board
President's Management Team (PMT)	<p>Responsible for risk management within their area of responsibility and for notifying the President and CFO where exposure to risks is material in nature</p> <p>Responsible for identification and assessment of strategic and operational risks at the Aalto level</p> <p>Monitor the identified Aalto level strategic or operational risks allocated to a PMT member as a risk owner</p>	President
Chief Financial Officer (CFO)	<p>Oversees the implementation and operation of the risk management process as well as development of university's risk management framework</p> <p>Supports PMT members in the risk management process</p> <p>Responsible for continuous follow-up and reporting of risk management</p>	President, PMT, Audit Committee and Board
Internal audit	<p>Evaluates functioning and adequacy of methods used and tests effectiveness of internal controls</p> <p>Supports management in assessing the adequacy and effectiveness of risk management, internal control and corporate governance system</p>	Audit Committee
Employees	<p>Actively identify and evaluate risks within operations</p> <p>Execute the risk management activities addressed to him/her</p>	Superiors

2.4.2 Provision for risks

The PMT and the Board regularly evaluate the university's risk environment and key areas of operations based on the Aalto University strategy, taking into account the physical safety and financial impact as well as impact on the university's operations. Based on the annually updated risk map, the Board yearly selects a number of specified targets for internal risk auditing, for example, university investment activities or personnel structure.

Different types of risk are managed at Aalto University on a daily basis, and methods for assessment and means of elimination or mitigation vary between risk types. Aalto University builds relevant organisations and issues regulations, instructions and guidelines for recognised areas, for example: financial risks, legal risks, preparedness and contingency planning, and workplace safety.

Financial risks

Financial risks include the failure to retain funding to manage the operations of the university. To counter financial risks, Aalto University has the following provisions:

- Aalto University Foundation Financial Regulations that define the financial governance framework of the university
- [Financial Guidelines for Contract Approvals and Signing Rights](#) to ensure that all legal and financial aspects of income and cost commitments are covered during preparation and that proper authorisations and risk limits are followed when entering these commitments
- external statutory audits are performed regularly on financial accounts
- internal audits are performed on university operations based on its risk map update
- annually updated Aalto University Foundation Endowment Authorizations and Risk Limits that define what type of risks can be made in university investment operations
- new, external co-operation partners are validated from the point of view of their credit status.

Legal risks

Aalto University manages legal risks of its activities and ensures appropriate implementation using a systematic approach. This approach includes:

- minimising the contractual risks by negotiating contract contents
- awareness of consequences in decision making when signing and approving documents
- working systematically to avoid the realisation of recognised risks.

Preparedness and contingency planning

Aalto University has a safety organisation coordinated by the Safety Director at Campus Services (CAS); [the procedures in case of emergency](#) are defined.

Workplace safety

Work for promoting occupational safety and the Occupational Safety Manager directs health with the assistance of the [Health and Safety Committee](#).

The occupational healthcare provider of Aalto University evaluates safety at the office and in teaching facilities with a regular [workplace survey](#).

Safety at research facilities is controlled and checked by laboratory managers. To both ensure personal safety and prevent damage to research equipment, appropriate training is required before researchers and students are allowed to use the facilities.

3. RESEARCH AND INNOVATION

To provide a strong foundation for teaching, learning and innovation, Aalto University is committed to high quality, scientifically and societally influential research and art and creative practices by securing their long-term funding base and creating career systems optimised to sustain academic and professional excellence.

The university's strategic objective is to be an internationally acclaimed, multidisciplinary research university where research and education are promoted hand-in-hand. The university's research initiatives and projects are carefully selected based on a number of factors. These factors include national importance, scientific level and relevance, the level of challenge, global competition, and cooperation with international and domestic research and industrial partners.

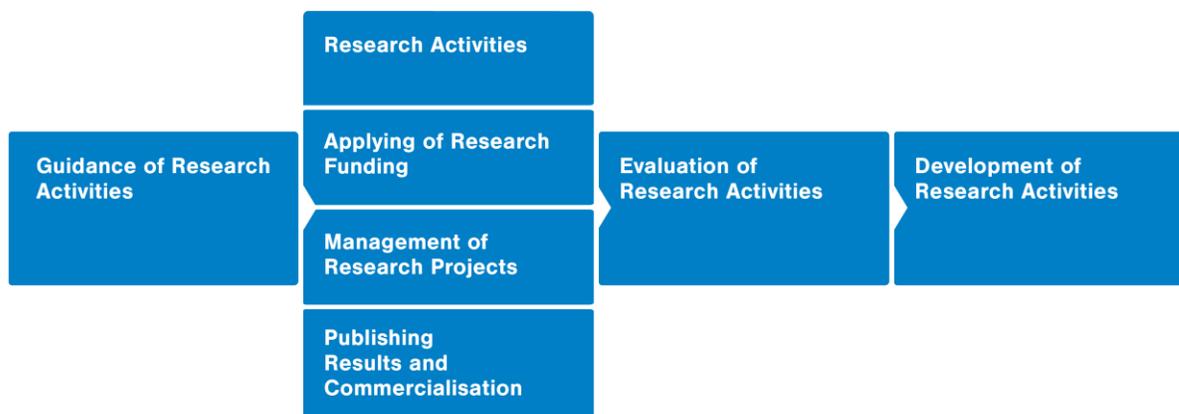


Figure 8. The research process at Aalto University.

3.1 Management of research and innovation activities

3.1.1 Research and innovation activities

The principle of academic freedom within the boundaries of legislation and adherence to good scientific practice and [guidelines issued by the National Advisory Body on Research Ethics in Finland](#) is the driving force of research at Aalto University. Research and art and creative practices especially target excellence, multi-, inter- and cross-disciplinarity, and high societal impact. As part of the current strategy update process, discussions within the Aalto community have identified the following [four core competence areas](#) with recognised excellence rising from the research excellence at schools and departments (Figure 9):

- ICT and digitalisation
- Materials and sustainable use of natural resources
- Art and design
- Global business dynamics.

[Three integrative multidisciplinary themes addressing global challenges](#) with high national significance complete the Aalto University research focus areas:

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

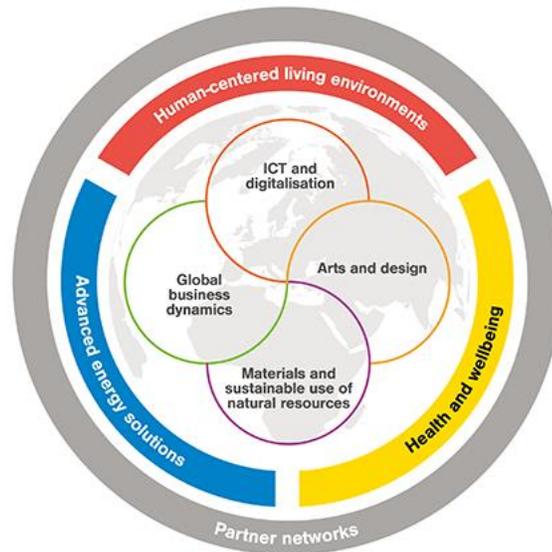


Figure 9. Aalto University core research competence areas and integrative multidisciplinary themes.

The tasks of universities as defined in the *Universities Act* are to conduct free research, offer the highest quality education based on research, and use the results for the benefit of society. According to the Aalto University strategy, research activities focus not only on strong basic research in the fields represented by the university, but also on collaboration with top companies in their respective fields, as well as development of a vibrant innovation ecosystem around the university's research, artistic and educational activities.

Roles

Research at Aalto University is conducted by faculty and staff based in the departments and separate units of the schools. A significant amount of research is carried out in externally funded research projects; the process is guided by the [Code of Practice for Project-Based Research in Aalto](#). The role of university leadership and management is to ensure the long-term preconditions for conducting high-quality and high-impact research, as presented in Table 3.

Table 3. University and school level actors, their roles and responsibilities, and communication regarding research at Aalto.

University level Actor	Roles and responsibilities	Communication
President	Makes decisions on the professor position allocations	Aalto Inside
Provost	Oversees the academic activities at the university and makes proposals to the President regarding major investments in faculty (new professor positions), strategic initiatives and infrastructure.	Aalto Inside
Vice President of Research and Innovation	<p>Coordinates and facilitates multidisciplinary research at Aalto University</p> <p>Monitors and ensures positive development of research quality</p> <p>Ensures efficient transfer of research results to society</p> <p>Manages university-level research infrastructure coordination, funding and operations</p> <p>Approves funding applications other than those approved by Heads of departments or school Deans, prioritises funding applications when requested by funding body</p> <p>Coordinates doctoral education at Aalto University</p> <p>Leads Research and Innovation Services (RIS) to provide cost-efficient and high-quality services for the research faculty, external stakeholders and partners</p> <p>Provides guidelines on research processes including open science, digitalisation and research ethics</p>	Aalto Inside
University Academic Affairs Committee (AAC)	<p>Promotes high quality in research and decides on general regulations regarding research</p> <p>Appoints bodies required for organising research and teaching, and issues the regulations governing their activities</p> <p>The AAC has transferred its jurisdiction partially to the schools' academic committees</p>	Aalto Inside
Steering Group for Research and Innovation (RISG)	Supports the management and preparation of research and innovation related matters	Reports to the Provost

School level Actor	Role and responsibility	Communication
Dean	<p>Leads the process of developing the school research strategic plan and focus areas in compliance with university strategy</p> <p>Makes budget proposals including new professor positions to the President</p> <p>Leads recruitment of new faculty in the school</p> <p>Allocates resources to the departments</p> <p>Approves funding proposals in line with school's strategic plan</p> <p>Ensures high-quality research infrastructure for the school</p> <p>Ensures functioning quality assurance processes at the school</p>	Aalto Inside
Vice Dean (Research)	Coordinates research-related matters as delegated by the Dean	Reports to the Dean
Head of Department	<p>Leads recruitment of new faculty in the department</p> <p>Makes budget proposals including new professor positions to the Dean</p> <p>Allocates resources according to principles and guidelines approved by the Dean</p> <p>Approves funding proposals in line with department's and school's strategies</p> <p>Leads the development of the department action plan in compliance with school's strategic plan and university strategy</p> <p>Ensures functioning quality assurance processes in the department</p>	Reports to the Dean
Professor	<p>Leads research projects</p> <p>Recruits research staff for his/her research group</p> <p>Acquires external funding for research and acts as the responsible manager for externally funded projects</p> <p>Conducts research and publishes research results</p> <p>Instructs and supervises doctoral students</p>	Reports to the Head of Department
Research faculty and staff	Conduct research ensuring conformity with the law, in line with the funder's contractual terms and conditions and in accordance with ethical practices and research policies, and publish research results	Reports to the Head of Department

Securing the preconditions for research

At Aalto University, the President allocates funding for the schools to maintain appropriate conditions and resources for research, and to ensure cost-efficient and effective support services. [Research and Innovation Services](#) (RIS) provide support for applications for external research funding, managing research projects and commercial exploitation of the research results. [Aalto University's Research Ethics Committee](#) provides ex-ante ethical evaluations requested by research groups.

The President, based on the schools' strategic plans and annual Strategy Dialogues with the schools, allocates professor positions based on proposals by the Deans and within budget constraints.

Aalto University maintains multidisciplinary research [platforms](#), [factories](#), [internal funding programmes](#) and other means to support multidisciplinary activities and research within the university as well as with external partners. Existing platforms are evaluated at regular intervals, and new ones are developed as part of the Strategy and Resource Dialogue process.

The university supports maintenance and development of expensive research infrastructures. Six significant research infrastructures have been selected as long-term projects that have clearly identified objectives and development plans, user interfaces, user statistics and other performance indicators. Agreements between the university, schools and departments commit each party to a shared funding scheme. New infrastructures for the scheme are considered annually as part of the Strategy Dialogues.

The university's research activities reform and transform society through efficient [transfer of research results to innovations and commercial use](#) supported by research and innovation services for Intellectual Property (IP) creation (e.g., invention disclosure process, IP protection), licensing and IP transfer, and support spin-off company creation. Further, Aalto University offers access to its research infrastructures to external partners at little or no profit.

Research focus areas are selected to have high relevance to economic life, and they target grand societal challenges nationally and internationally. The majority of research resources are allocated to focus areas. Stakeholders are involved (e.g., through interviews) in updating Aalto's strategy.

Further, Aalto's policy on research results and publications supports wide dissemination of research results, including actively engaging with the public through efficient web communication, media and stakeholder events.

According to the university funding model, the schools receive 40% of their basic funding based on the number of tenure-track professors and significant infrastructures, and 40% is based on performance (degrees, points from publication forums like JUFO, competitive research funding, artistic outputs, students with more than 55 annual credits, student feedback, international students, and employed graduates); 5-10% as excellence funding (e.g., top publications, Centres of Excellence of the Academy of Finland and Academy Professors, ERC funding, high-quality artistic activities and significant strategic partnerships); and 10% is based on new strategic initiatives presented at the Strategy Dialogues. Research groups actively seek external funding from academic and non-

academic sources to demonstrate excellence and foster internationalisation, strengthen the funding base, and create new collaborations with academia, industry and other stakeholders.

3.1.2. Research and innovation assessment practices

Peer review

The quality and excellence of the research activities are assessed through peer review using criteria relevant to the particular field in question.

At the university level, peer review is carried out through RAEs, during which an international panel assesses the research quality at school, department, and individual levels. At the school level, development is monitored by Scientific Advisory Boards and Scientific and Artistic Advisory Boards (S(A)ABs), comprised of international experts in fields relevant to the schools. In biennial meetings, the S(A)ABs examine results and development during the previous two years and provide recommendations for further development directions.

At the individual level, professors on non-tenured positions receive annual feedback on their development from the Head of Department and/or Dean. Non-tenured professors undergo a comprehensive external peer review before being granted tenure. Individuals and teams also receive peer feedback on their funding applications, and articles and conference papers submitted for publication. Research personnel have annual development discussions to ensure the progress of research.

Performance agreements and indicators

The university Performance Agreement with the MEC defines key indicators and their target values for a four-year period. The quality of scientific publication is assessed through the classification of the [Publication Forum](#) and [FT-45 publication ranking](#).

Aalto University uses a set of KPIs for target setting as well as annual monitoring of performance development in the area of research. These include:

- quality of publications (proportion of top 10% publications)
- participation in artistic, innovative and entrepreneurial activities
- share of multidisciplinary projects
- significant corporate, public and non-governmental partnerships.

The quality of research at Aalto University is also monitored by means of international databases (in particular ISI and Scopus) and the educational administration's statistics portal ([Vipunen](#)).

The annual Management Review at the university level collects material from the schools' Annual Reviews and assesses their achievements against set target values. Performance and evaluation recommendations for different fields of science and research at Aalto University are considered when deciding on university profiling, as part of the national

profiling of universities in general, and universities of technology in particular. Profiling actions also influence future professor position allocations.

3.2 Doctoral education

3.2.1 Management and implementation of doctoral education

Doctoral education at Aalto University is organised into [six school-specific programmes](#). Doctoral studies can be completed on full- or part-time bases. To facilitate full-time doctoral studies, each of the schools provides funding and employment to a number of the doctoral candidates for up to four years.

Roles

The Vice President of Research and Innovation is responsible for strategic management of the university's doctoral education, see Table 4.

Table 4. University and school level actors, their roles and responsibilities, and communication regarding doctoral education at Aalto.

University level Actor	Roles and responsibilities	Communication
University Academic Affairs Committee (AAC)	Promotes high quality research and teaching Decides on the university's curricula, degree requirements, admission criteria for students and other general regulations concerning education and research Submits proposals about Honorary Doctorates	Aalto Inside
Vice President for Research and Innovation	Ensures that university's doctoral education system achieves the strategic objectives set by the university Acts as chair of Doctoral Education Working Group	Aalto Inside
Doctoral Education Working Group	Develops doctoral education at Aalto University Drafts common guidelines for doctoral education	Reports to Research and Innovation Working Group
Schools' doctoral education Planning Officers team	Discusses common issues and practicalities concerning doctoral education process and shares good practices between schools	Reports to Doctoral Education Working Group

School level Actor	Roles and responsibilities	Communication
Dean	<p>Appoints the Head of the Doctoral Programme</p> <p>Accepts doctoral candidates to the doctoral programme</p> <p>Grants degrees</p>	Aalto Inside
Vice Dean	Handles the Dean's education-related matters as delegated by the Dean	Reports to the Dean
Schools' Academic Affairs Committees	<p>Approves the curricula and degree requirements (delegated from AAC)</p> <p>Submits proposals on the school-specific degree requirements and admission criteria</p> <p>Decides on arrangements for the conferment ceremony of doctoral degrees and about conferment of Honorary Doctorate degrees</p> <p>Performs other tasks assigned by the Dean and AAC.</p>	Aalto Inside
Doctoral Programme Committees (BIZ Dissertation Committee, more limited duties)	<p>Prepares proposals for research fields in doctoral education for the school's AAC and the selection of doctoral students for the Dean's decision</p> <p>Approves curricula and the language and topics for dissertations, appoints preliminary examiners, decides on granting permits for publication/public defence of dissertation, approves/decides the grades for theses, as well as prepares and discusses matters related to doctoral education and doctoral study at the school</p> <p>Makes decisions concerning licentiate theses</p> <p>Chairperson of the committee decides on date and language for public examination of the dissertation and nominates the <i>custos</i> and the opponent, except in the School of Business and School of Arts, Design and Architecture, where the committee makes these decisions</p>	Proposals to the school AAC and Dean
Head of Doctoral Programme	Plans, implements, evaluates and develops the programme	Reports to the Dean

Supervising professor	<p>Holds preliminary discussions with prospective students</p> <p>Approves the application, the research, study and supervision plans of the doctoral student</p> <p>Provides introduction to the research field, ethical research and academic practices</p> <p>Supervises and guides doctoral student throughout studies</p> <p>Accepts theoretical studies, dissertation manuscript for preliminary examination, and suggests pre-examiners and opponent(s)</p>
Thesis advisor	<p>Provides supervision and guidance of the doctoral student together with supervising professor</p>

Implementation of doctoral education

The [Universities Act](#) (Yliopistolaki 558/2009) states that a person eligible for a doctoral degree must have completed an applicable higher university degree, higher polytechnic degree, or education completed abroad (the awarding country provides eligibility for corresponding higher education).

Aalto University uses the following as selection criteria for doctoral studies: the applicant's motivation for postgraduate studies and grades, the quality and feasibility of the research plan, and the prospect of the applicant completing the studies within the agreed schedule. Each school also has more specific evaluation criteria. The Aalto schools organise admissions to the doctoral programme of the school at least once a year. The university AAC confirms the admission policy yearly. Admission criteria and schedules are published in the student website, [Into](#). Aalto University awards the following doctoral degrees: Doctor of Arts (Art and Design), Doctor of Science (Economics and Business Administration) and Doctor of Science (Technology/Architecture). In addition, pre-doctoral Licentiate Degrees are awarded.

The quality of doctoral education is based on sufficient guidance and supervision throughout the doctoral studies and a thorough preliminary examination process of the dissertation, including external peer review. [The guidelines](#), *Supervision of Doctoral Candidates at Aalto University* and *Preliminary Examination of Doctoral Dissertations at Aalto University*, and other policies regarding doctoral education at Aalto University are available in the Aalto University intranet, Inside.

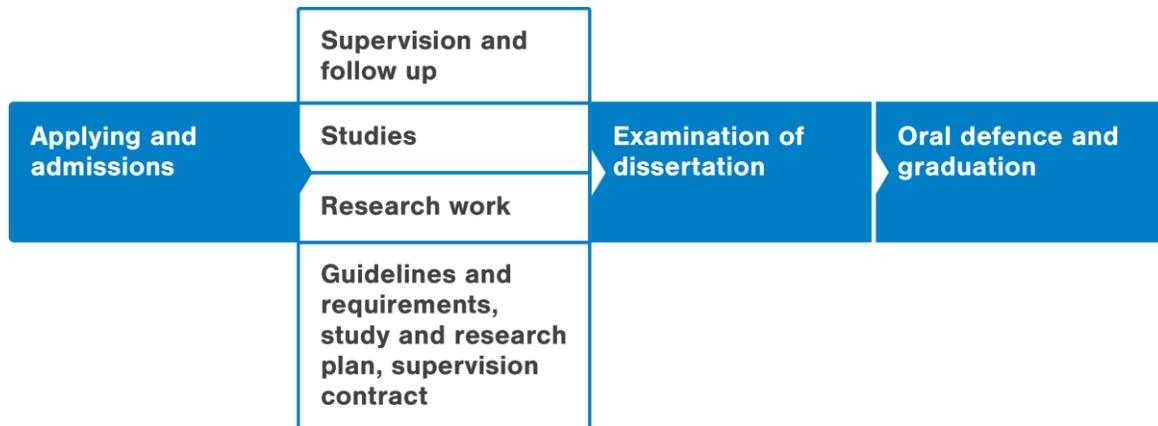


Figure 10. The doctoral education process at Aalto University.

Doctoral studies

Upon acceptance for full-time doctoral studies, the student and supervisor agree on a personal four-year study plan. The plan contains at least a listing of the theoretical studies, a short research plan, and an implementation plan for the dissertation research and studies, including schedules. Part-time doctoral candidates can make the study plan for a longer period. Doctoral candidates employed by Aalto University are considered full-time if at least 80% of the working time can be spent on activities relevant to their doctoral studies.

The theoretical studies included in a doctoral degree deepen the student's field-specific knowledge and prepare them for high-quality scientific and artistic work by introducing methods for application and communication of research information. The main focus of the doctoral studies is on research; in the field of art and design, this can also include an artistic section. The doctoral dissertation must include new scientific knowledge, and the work must demonstrate the student's independent and critical thinking.

Examination of the dissertation and graduation

At least two external reviewers appointed by the doctoral programme committee carry out the preliminary examination of the dissertation manuscript. After the preliminary examination of the dissertation manuscript, the doctoral candidate publishes the dissertation following the Aalto University guidelines and defends the dissertation at a public examination. The approval of the dissertation, grading and granting of the degree is done at school level. The university grants the right to use the insignia of a doctor at the Ceremonial Conferment of Doctoral Degrees, which is held at regular intervals.

3.2.2 Supervision and monitoring of doctoral studies

The supervising professor and the doctoral candidate review the student's performance against the personal study plan at least annually. A written [supervision](#) agreement, between the supervising professor, thesis advisor(s) and the doctoral candidate, documents the supervision practices as well as responsibilities, rights and obligations of each party during the doctoral education process of the doctoral candidate.

Monitoring of the doctoral education process

The doctoral programme committee collects statistics on doctoral degrees awarded by the school and average study times. The Doctoral Education Working Group reviews dissertation requirements, study requirements and other practices in the schools to ensure sufficient homogeneity of processes and requirements across the schools and to share best practices. The Annual Review, S(A)AB visits and research assessments include a review of doctoral education as part of the school's research activities.

Developing the doctoral education process

The content of doctoral education is revised based on issues identified, for example, concerning study times or new needs in the research field or in society generally. The research practices are developed based on peer review of the research results throughout the doctoral studies, obtained through publication of the results in journals, conferences or other media. Guidance and mentoring are developed by sharing best practices through the Doctoral Education Working Group.

School-specific actions are described in the schools' handbooks.

4. ART AND CREATIVE PRACTICES

Art and creative practices is one of the four core activities of the university (together with research, education and societal impact). Aalto University provides an internationally unique combination of opportunities, where science and art meet technology and business.

Art, design and creativity drive innovation and entrepreneurship. These concepts radically question and challenge our society and culture. They generate new knowledge and understanding and create value by leveraging humane designs and viable solutions.

Aalto University's art and creative practices contribute to a better quality of life by putting a greater emphasis on a user-centered approach in the creation of new environments, and through strengthening multidisciplinary, critical and human-centered art and research. The works of art, productions, exhibitions and performances made possible by Aalto influence society through a variety of forms and channels. Art and creative practices drive creative research, invigorate innovative economies and initiate, reinforce and challenge global thinking and practices.

4.1. Management of art and creative practices

Aalto University develops and promotes art-based and creative activities across the boundaries of diverse disciplines, knowledge frameworks and communities. These activities are critical and integrative practices, which create meanings, definitions and new adaptations, and reinforce creativity and innovations.

The mission of art and creative practices at Aalto University is to:

- position Aalto University as global leader in the fields of art and creative practices
- utilise art and creative practices as means for renewal
- develop, produce and realise transdisciplinary artworks and events to be exhibited to audiences across Aalto University and beyond
- create and develop new ideas of connecting art and creative practices with education and research at the university
- develop the international competitiveness of art and creative practices at the university
- seek new ways of reporting quality and quantity of art and creative practices in cooperation with national and international partners.

Roles

The Vice President for Art and creative practices is the head of artistic activity at Aalto University and leads the [Aalto Artistic Activity Steering Group](#) (AASG), which is responsible for art-based activities, creative practices and design thinking at Aalto University. The roles of university-level actors are described in Table 5.

Table 5. Actors, their roles and responsibilities, and communication of art and creative practices at Aalto University.

Actor	Roles and responsibilities	Communication
Provost	Oversees the academic activities at the university and makes proposals to the President regarding major investments in faculty (new professor positions) or infrastructure.	Aalto Inside
Vice President for Art and Creative Practices	<p>Leads the Aalto Artistic Activity Steering Group (AASG).</p> <p>Coordinates and facilitates art and creative practices at Aalto University.</p> <p>Monitors and ensures positive development and quality of artistic activities and creative practices.</p> <p>Ensures efficient utilisation of artistic activities' and creative practices' results in society.</p> <p>Manages university-level art and creative practices infrastructure, coordination, funding and activities.</p>	
Aalto Artistic Activity Steering Group (AASG)	<p>Prepares and coordinates the implementation of the university strategy related to joint art and creative practices.</p> <p>Prepares and discusses matters in the decision-making mandate of Vice President for Art and Creative Practices, and for input to other decision-making bodies at Aalto University.</p> <p>Guides and coordinates the work of the four working groups related to art and creative practices.</p> <p>Communicates with schools, faculty, students, and Aalto management about the development of and the strategic initiatives for art and creative practices.</p> <p>Shares and develops good practices in artistic activities and creative practices across schools and disciplines.</p>	
University Academic Affairs Committee (AAC)	<p>Monitors the quality of art and creative practices.</p> <p>Gives general guidelines for conducting artistic activities and creative practices.</p> <p>Has transferred its jurisdiction partially to the schools' Academic Committees.</p>	

Art and creative practices are part of Aalto University's annual planning, education and research processes. The objectives for artistic activities and creative practices are set in the annual Strategy and Resource Dialogues with the Provost. The follow up of previous objectives and the results are communicated in strategy discussions and Annual Reviews.

The Aalto AASG has four working groups with the following focus:

- **Sharing and Co-creating Transdisciplinary Artworks** develops the production and realization of transdisciplinary artworks, events and exhibitions, including artist-in-

residence, at Aalto University. The group also works toward increasing the visibility and articulating the societal impact of artistic and creative activities throughout Aalto and beyond.

- **University Wide Art Studies (UWAS)** offers access to art-based thinking for every discipline in the university through a series of field-neutral courses related to art, creativity and culture.
- **Brand Visuality** raises the quality of Aalto University's brand globally, through campus, guest and material visuality.
- **Art in Universities** increases the global positioning of Aalto University in art and creative practices, strengthens Aalto University's international collaboration as a global player and attractive partner in transdisciplinary activities and creative practices, promotes creative partnerships and alliances with cities and non-governmental organisations.

In addition to university-wide activities, an increasing number of faculty members have formed cross-disciplinary projects that cross traditional school and disciplinary borders and include creative practices. These activities are tied to the schools' research and education, and their development is part of each schools' resourcing. Spearhead initiatives include [CHEMARTS](#), Living+, [ADDLab](#), Game design professorship, [Aalto Factories](#), and the Future Media Centre.

Field-specific, deep knowledge in art, design and architecture has a long tradition in the School of Arts, Design and Architecture (ARTS), and in contrast to other artistic and creative practices, it is currently carried out at only one school. Field-specific, deep knowledge in art, design and architecture is equalled to scientific research, and it is expected to reach high quality standards.

The results of the field-specific artistic activity in ARTS are recognised as artistic outputs, significant both nationally and internationally. Aalto University plans and develops these art and creative practices according to the school's SAAB recommendations.

Works of art, productions, exhibitions and performances form the backbone of the impact of Aalto University's art and creative practices, but these influences spread wider through the school's network-based society.

4.2 Assessment practices for art and creative practices

Development of assessment practices

KPIs in art and creative practices are currently only used for measuring the success of ARTS and its field-specific, deep knowledge that is equated with research. KPIs for university-wide art and creative practices are being developed.

Performance in art and creative practices is measured through peer-reviewed artistic outputs. The number of peer-reviewed artistic outputs on international, national and local levels is calculated by considering:

- the output reviewed by a competition jury, curated exhibition or festival
- an invited call by a professional or thematic organization
- awards, prizes, exhibitions, curations, festivals, films and productions.

The number of peer reviewed artistic outputs is counted in the ACRIS database and the ARTS Annual Review.

Part of the peer-reviewed artistic outputs (expected outcome is about 10%) must be considered significant. The definition of significance is based on each field's lists of the most significant forums in that field. It is the forum that acts as the measure (similar to the impact factor ranking of a journal), not the quality of the artistic output itself. This definition, and the list of most significant forums, is further developed and maintained through input from the Annual Review.

Significant artistic outputs are measured through the most significant forums in their fields, specifically, the number of artistic outputs in significant international forums: international or national high-level awards and prizes, exhibitions, curations, festivals, films and productions.

5. EDUCATION

Aalto University educates responsible, broad-minded professionals to act as society's experts, visionaries and change agents. Aalto offers education, based on the research conducted at the university, leading to Bachelor's, Master's and doctoral degrees. Since the university is a merger of three long-standing universities of science and engineering, business, and art and design, the processes expose field-specific variations described in the schools' handbooks.

Teaching at Aalto University aims for a high international level, and follows ethical principles and good scientific and pedagogical practice. Teachers are encouraged to continuously develop their teaching competence and expand their teaching methods. Aalto University interacts with the rest of society when implementing teaching.

In its strategy, Aalto University has set several aims in relation to degree-oriented education:

At Aalto University, teaching is based on high-quality research. Aalto University is an internationally acclaimed, multidisciplinary university where research and education are promoted hand-in-hand.	The education offered is diverse and challenging, promoting a culture of creativity and entrepreneurship and preparing the students for entering professional life. Aalto University is an inspiring international learning environment based on cooperation. The university encourages lifelong learning.	Aalto University develops multidisciplinary artistic and scientific collaboration across the boundaries of science and art.	Aalto University is in systematic and inspiring dialogue with its stakeholders - businesses and the public sector. It understands and anticipates the needs of society and influences development efforts.
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Figure 11. Aims of degree-oriented education at Aalto University.

5.1. Management of learning and teaching

5.1.1 Management of teaching

Continuous development of the quality of teaching and learning is one of the university's key strategic objectives. Aalto University promotes a positive learning culture and atmosphere. Special attention is paid to supporting the progress of studies and monitoring the study process to ensure learning outcomes.

The purpose of the university's [academic rules and regulations](#) is to safeguard uniform and equal treatment and legal protection for all members of the academic community as well as to support implementation of university strategy in studies, teaching and the arrangement of education. [The Aalto University General Rules on Teaching and Studying](#) are supplemented by the [degree regulations of the schools](#) and further instructions by the President, Provost or Vice President of Education.

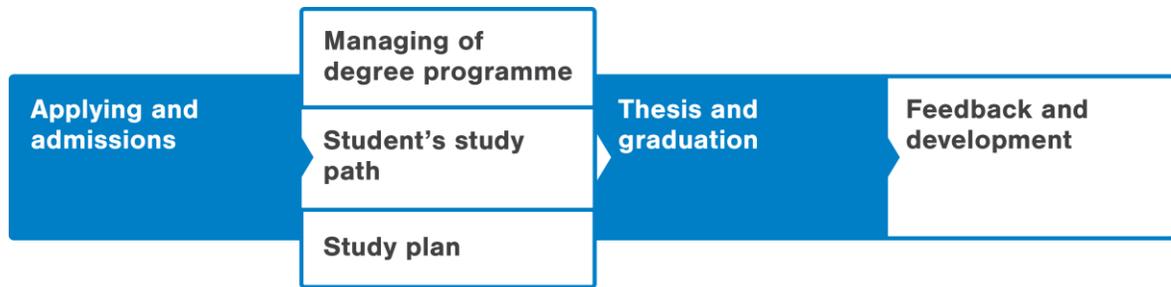


Figure 12. Basic elements of degree education at Aalto University.

Roles

The management, development and monitoring of learning and teaching and related Learning Services (LES) are based on the university strategy in accordance with legislation in the field of education, MEC instructions and other guidelines. These are available on Inside and student website Into.

Decision-making and other actors in the area of learning and teaching at university and school levels are summarised in Table 6.

Table 6. University and school level actors, their roles and responsibilities, and communication regarding learning and teaching at Aalto.

University level Actor	Roles and responsibilities	Communication
University Academic Affairs Committee (ACC)	<p>Makes decisions about the university's curricula, degree requirements, admission criteria for students and other general regulations pertaining to education</p> <p>Sets up the official bodies for education, appoints their chairpersons, members and deputy members, decides on the rules and regulations governing those bodies</p> <p>May delegate the above tasks to the schools' academic committees (Aalto University Bylaws Section 13)</p>	Minutes on Aalto Inside
President	<p>Decides on the introduction and closure of a degree programme and its areas of specialisation, and on the annual student intake numbers</p> <p>Decides about any written reprimand requested by the Dean to be given to a student</p> <p>Approves the regulations concerning the Student Financial Aid Committee</p>	President's decisions on Aalto Inside
Provost	Oversees all processes related to the university's education.	Provost's decisions on Aalto Inside

Vice President of Education	<p>Manages the Bachelor's and Master's level education at the university and the university's development of teaching and LES</p> <p>Monitoring and evaluation of the effectiveness and multidisciplinary nature of teaching</p> <p>Decides on university-level matters relating to the practical arrangement of studies, such as schedules for periods of the academic year</p>	Vice President's decisions on Aalto Inside
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Academic Appeals Board	<p>Processes petitions for correction of study attainments</p> <p>Processes appeals directed against the decisions taken on the basis of the correction petitions made under the provisions of Section 82 of the <i>Universities Act</i></p>
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Student Financial Aid Committee	The tasks of the Student Financial Aid Committee have been defined in the Student Financial Aid Degree
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School level Actor	Roles and responsibilities	Communication
Dean	<p>Manages the education activities of the school</p> <p>Appoints the directors for the degree programmes</p> <p>Admits students to the school, handles rectification matters related to student selection and right to study, makes decisions related to extension to the maximum time of right to study and to restoration of right to study</p> <p>Grants degrees</p> <p>Acts as the chairman of the school's Academic Committee</p>	Dean's decisions on Aalto Inside
Vice Dean (Education)	Handles the Dean's education-related matters as delegated by the Dean	Reports to the Dean
Schools' Academic Affairs Committees	<p>Approve the curricula and degree requirements (delegated from the university AAC)</p> <p>Submit proposals on school-specific degree requirements and admission criteria and on other matters related to academic activities</p> <p>Perform other tasks assigned by the Dean and the AAC</p>	Committee minutes on Aalto Inside
Degree Programme Director	Plans, implements, evaluates and develops the programme: coordinates and develops the curriculum process; monitors the student progress, graduation time, course and programme feedback; negotiates financial and other resources for the programme with the Heads of departments; and collaborates in education within school and with other schools as well as with important interest groups in the education	Vice Dean

Head of Department	Provides the resources for teaching activities, planning of teaching, and monitoring and developing the effectiveness and quality of teaching at the department	Reports to the Dean
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At the schools, the Deans are responsible for education but may transfer decision-making power in teaching matters to the Vice Dean responsible for education. Each school is responsible for the appropriate allocation and prioritisation of resources needed for teaching, and the achievement of the annually agreed performance targets related to teaching.

[Aalto LES](#) provides services that enable the fluent progress of studies. Co-operation groups for coordination and development ensure the efficient preparation and management of operative and long-term matters related to teaching between the university and the school levels. See Table 7 for more information.

Table 7. Learning Steering Group (LESG) bodies, their roles and responsibilities, and communication at Aalto University.

Actor	Roles and responsibilities	Communication
Learning Steering Group (LESG)	<ul style="list-style-type: none"> Prepares and coordinates implementation of the university strategy and joint education related affairs Prepares all education related affairs to the university AAC and PMT Conducts the strategic management of learning related affairs Coordinates all joint education related development efforts Provides a platform for good practice sharing across schools Enhances the harmonisation of learning related processes and actions Coordinates quality management in learning areas Conducts performance management of learning and LES (including KPI development) Conducts management of permanent and temporary task forces related to learning and teaching 	Aalto Inside
Learning Services Advisory Board	Conducts the operative management of LES at the university	
Schools' Teaching Competence Assessment Committees	Conduct teaching competence evaluations of tenure track and lecturer track applicants and those advancing in these career systems	

5.1.2 Curriculum planning

Following the Bologna principles, Aalto University offers programmes leading to Bachelor's, Master's, the intermediate Licentiate and doctoral degrees. The structure and the contents of the degree programmes are described in the Aalto University student website, [Into](#).

Bachelor's education is organised as broad technology, business or arts and design programmes, preparing students for several Master's programmes. Master's programmes are organized as schools-specific, as joint programmes within Aalto by several schools, or as international joint programmes in cooperation with partner universities. In the programmes taught in English, tuition fees are compulsory for students outside EU/EEA.

Doctoral education has been organised into six school-specific doctoral programmes described in Section 3.2. In addition to teaching aimed at completing a degree, Aalto University offers adult education that comprises continuing education and Open University teaching.

The curriculum of each degree programme is a comprehensive description of its objectives and activities:

- learning objectives
- scientific, artistic and professional objectives
- degree requirements
- language of the degree
- majors and minors in the programme
- courses in the programme with their descriptions and responsible unit(s).

The Vice Dean (education) is responsible for the planning of teaching. Specific learning outcomes for degree programmes are decided in the schools' Academic Committees. The schools' curricula are prepared in accordance with university guidelines.

The schools annually decide on detailed guidelines for planning of teaching and give instructions within the school. The AAC also annually confirms curricula, after which they are published in study guides available in the Aalto Student website [Into](#).

5.1.3 Student recruitment and admission

When recruiting students at the Bachelor's level, the target students are those graduating from high schools in Finland. The main recruiting channels are the Aalto University website, national in [Opintopolku \(Studyinfo\)](#) web portal, newsletters and social media. Direct recruitment activities include various exhibitions, student recruitment events, student ambassador activities, contacts with guidance counsellors and teachers at Finnish high schools, and visits to upper secondary schools.

In addition to websites, portals and newsletters, active and systematic recruiting of international Master's students and doctoral candidates involves the utilisation of international contacts and communications at partner universities and cooperation

networks. Further, Aalto University's students and alumni serve as important messengers to potential applicants.

The *Universities Act* allows universities to approve their own admission criteria. Aalto's AAC decides on the general criteria for student admission. These admission criteria must also be followed in international joint programmes. The President decides application targets and the annual number of students admitted to the degree programmes, compatible with the contractual agreement with the MEC and Strategy Dialogues with the schools. The schools' AACs decide on school-specific academic assessment criteria for admission on the Master's level. Admissions Services at the university-level LES process student recruitment and make practical arrangements of student admission for Bachelor's and Master's degrees in close cooperation with Communication Services (COS). The Deans approve the new students admitted to the schools. Information related to student admissions is available on the Aalto University website under [Admission](#).

Students admitted to the university's Bachelor's degree programmes also have the right to study for a Master's degree. Information regarding studies is presented in [Opintopolku \(Studyinfo\)](#).

At the Master's level, external applicants can apply for the Master's degree programmes at Aalto University if they have completed a Bachelor's degree in an applicable field at a university or a polytechnic, or at least a Bachelor's-level degree abroad. The schools assess the quantity and quality of applicants and admitted students annually.

Aalto University Admission Services is responsible for processing the administrative check for applications at the Master's level. The academic evaluation of the eligible applications is performed by the academic faculty and staff and coordinated at the school level to ensure uniform comparison of applicants with different educational backgrounds.

5.1.4 Study progress support

From the beginning of studies to the completion of a degree, each student's progress is guided and followed by means of a personal study plan (known as HOPS) confirmed by the school.

The purpose of the Aalto First Year Experience (AFYE) activities is to help each new student feel part of the university community, its academic life, one's own school and degree programme. The first study year begins with orientation periods organised by the schools and continues through the year with various lectures, events and networking opportunities relating to study skills and studentship. Orientation periods are held in Finnish, Swedish and English and are organised for both Bachelor's and Master's level students.

Aalto University LES provides comprehensive administrative, counselling and support services for students throughout their studies. The details and contact information of the services are found in the university's student website Into. Aalto University is committed to organising its student services in a professional, efficient, flexible and accessible way. The university also pays special attention to the overall wellbeing of students by providing access to extracurricular activities, for example, through Unisport sports facilities.

Study guidance has a defined form; teachers have an important role in study guidance. The LES team (planning officers, study coordinators, study affairs secretaries and student tutors) supports teachers with practical affairs related to education and routinely contacts students to monitor and guide them in different phases of their studies.

The aim of academic guidance is to support individual students in planning their studies, thereby helping them complete their degree in a normative study time. Participating in guidance sessions is a part of the Orientation to University Studies course and mandatory to all new students. Peer support and contact with university teaching and student services personnel are important and assist the student in adapting to the student environment.

Aalto University encourages all students to have an international component (exchange period) in their degrees. Schools have joint and school-specific student exchange agreements throughout the world.

The schools aim at offering their students the opportunity to equip themselves with readiness and understanding required to operate in international environments, including work and study environments. Students may improve these skills by completing a part of their studies in a foreign university as an exchange student or by studying as a degree student in an international joint programme. It is also possible for Aalto University students to participate in short-term courses and internships abroad as well as to complete a Master's thesis at a foreign university or company.

5.1.5 Other education

Executive and continuing education at Aalto University is organised through [Aalto Executive Education \(AEE\)](#). AEE offers opportunities for lifelong professional development and systematic updating of knowledge and skills needed in working life. AEE also offers two part-time Master's of Business Administration programmes (MBA and EMBA) and management training tailored for companies.

The Aalto University [Open University](#) provides everyone, regardless of educational background, with the opportunity to participate in university teaching.

The commissioned education model of the university is currently developed in cooperation with pilot programmes to be launched 2017-2018.

5.2. Learning and teaching

5.2.1 Assessing student learning

Assessment of teaching and feedback on learning progress are essential parts of a learning-centred culture. Assessment practices are described on a course-specific basis in the curricula. The practices for approving and assessing teaching performance and the appeals procedures are documented in the [Aalto University General Regulations on Teaching and Studying](#).

Teachers at the schools are encouraged to utilise different forms of teaching as well as alternative methods of evaluating learning. The procedures are described in study guides and in the schools' intranet found on Inside.

5.2.2 Evaluation and feedback in learning and teaching

The university and its schools receive feedback on the quality of teaching in the degree programmes from students, alumni and other stakeholders by means of surveys, accreditations, questionnaires and studies. In addition, the university takes part in and carries out evaluations concerning learning and teaching.

On the national level, the evaluation of Aalto University education is conducted by FINEEC. Aalto University also participates in other national and international evaluations and audits, and it is involved in peer assessments (benchmarking) with Finnish and foreign universities and other higher education institutions.

The university regularly carries out comprehensive self-evaluations on planning and implementation of learning and teaching. These evaluations offer the university, schools and degree programmes as an opportunity to discover strengths and areas for development. During the 2010-2011 academic year, a broad international TEE, including self-evaluations, was carried out to identify the strengths and key development areas during the start-up phase of Aalto University.

KPIs in the area of learning and teaching, followed by the MEC at the university level and affecting the funding of the university, include:

- volume: Bachelor's, Master's and doctoral degrees
- study progress: share of students with at least 55 credit points per year
- quality: the Finnish Bachelor's Graduate Survey (MEC).

Aalto University also monitors other performance indicators.

The schools regularly monitor their students' study achievements, graduation and employment as well as employers' and graduates' opinions on the quality of education and competences. The schools are responsible for processing course feedback and utilising it in the development of the curricula work for programmes and the management and quality work of teaching, in accordance with process descriptions. The strategy KPIs, course feedback from students and results from the Finnish Bachelor's Graduate Survey are utilised in the development of teaching.

5.2.3 Feedback processes

Assessment of learning outcomes is essential to develop the university's educational competence and facilities. In addition, the purpose of course and degree-specific feedback collected from students is to produce systematic, comparable and appropriate information to ensure and improve the quality of teaching. The results of student feedback survey processes, survey results and the consequent development actions at the schools are part of reviews performed by the university and the schools.

Degree-level feedback

Feedback on the Bachelor's degree is collected with the Finnish Bachelor's Graduate Survey for universities. It is used as one of the key drivers to develop teaching and study support services.

Course feedback

[Course feedback](http://wiki.aalto.fi) (wiki.aalto.fi) is collected by means of the university's joint online questionnaire in all university courses.

Teachers use the course feedback for the development of their courses. The university AAC and LESG provide instructions on feedback practices and processes to support strategic decision making and management by the schools and the university.

Feedback from graduates and employers

The feedback survey for students completing a Master's degree is carried out in cooperation with the Academic Engineers and Architects in Finland (TEK) and the Finnish Business School Graduates. The Finnish Association of Designers (Ornamo) regularly conducts working life surveys for its members. The Aarresaari network of academic career services carries out placement and career monitoring surveys for Master's and doctoral graduates five years after graduation.

Other feedback

The university also receives feedback on education through Aalto University Student Union (AYY) and school-specific student organisations (e.g., guilds). The Provost, Vice President of Education, Head of LES and AYY Board members meet on a regular basis to, among other matters, process student feedback on education and related support services.

Feedback is also collected from exchange students and teachers as well as foreign students attending the university. In addition, feedback is gathered at various events for students and teachers. The feedback received is used as the basis for developing services and focusing activities.

School-specific actions regarding teaching and learning are described in the schools' handbooks.

5.3. Students

The participation of students in the quality assurance of the university is realised mainly through the involvement of various student organisations. The AYY and student guilds and associations in the schools are involved in the planning, development and implementation of activities that have relevance to students.

Student union [AYY](#) is an organisation of the students from all schools at Aalto and is an important partner for the university. AYY operates in the areas of education policy, social policy and international matters, thus enhancing the position of students by being active inside the university community and elsewhere in society. Student union activities provide its participants with opportunities to influence university-related issues and decisions. The *Universities Act*, Aalto University Bylaws and the school bylaws specify student representation in administrative bodies of the university and the schools. According to the request by the university, AYY independently selects student representatives to these administrative bodies and gives them an introduction to university activities.

As part of the university community, students are involved in developing teaching, research and art and creative practices. The student guilds, study associations and AYY collaborate with the educational leadership and are key elements in welcoming and integrating new students to the university through tutoring. Tutoring for new students is organised according to responsibilities specified by the schools.

Students participate in educational development by means of various student feedback channels, for example. Students also take part in developing their own degree programmes via student organisation activities and by serving as [student representatives in administration \(hallopedi\)](#). One of the most important awards granted by AYY is the Learning Promotion Deed of the Year award. In addition to the student union, students are active in more than 200 recreational, political, cultural and sports associations, which are partly supported by AYY.

In addition to student advocacy, AYY supervises the interests of its members by providing healthcare and recreational services for its members, for example. The university offers its students support completing their studies through comprehensive study guidance, a study psychologist and modern learning facilities. A student's legal protection is ensured in different situations, such as admission and study attainment, in which the student is given access to decisions and grading. Issues of fraud and discipline are handled according to good administrative practice without unnecessary delay, and the student is provided with the opportunity to be heard before a decision is made. Instructions and support for studying and student wellbeing are provided in the Aalto University Student website Into.

The student involvement at the school level is described in the schools' handbooks.

6. CAMPUS

Aalto University operates on three campuses in Espoo and Helsinki. The largest and main campus is in the Otaniemi district of Espoo. The School of Business has facilities in Töölö in Helsinki and in Mikkeli in Eastern Finland. Starting in the autumn of 2015, Bachelor's education in the School of Business has also arrived in Otaniemi. The School of Electrical Engineering also operates in Kirkkonummi at Metsähovi research centre. The School of Arts, Design and Architecture is currently located both in Arabia district of Helsinki and in Otaniemi, but it is scheduled to relocate entirely to Otaniemi as soon as new building construction is completed.

According to the 2011 campus vision, the main aim of campus development in Otaniemi is to offer personnel, students and stakeholders of the university a highly interactive, engaging learning and working environment, which supports renewal and active cooperation with the surrounding society. The campus is built focusing on solutions that are economically and environmentally sustainable and accessible.



Figure 13. Otaniemi campus (© isohanni)

Following the 2015 strategy update, the strategic objective of campus development is to transform campus into a unique collaboration hub. Aalto's open and experimental collaboration ecosystem will attract students, faculty, staff and partners worldwide. The campus, with its state-of-the-art research and learning environment, is recognised for optimally supporting the production of new knowledge and innovation. In future, the university will build a vibrant campus centre that offers attractive opportunities for partnering and collaboration, and for sharing ideas and experiences.

According to [the Rules of Procedure of the President of Aalto University](#), campus development is led by the Vice President of Campus Development and is responsible for:

- Academic Engagement: ensuring the full and supportive engagement of the academic community in the university's campus development, the academic perspective in the general plan of the campus through frequent dialogue, and good collaboration between schools and campus planning and design groups.
- Benchmarking: maintaining clear oversight of development ongoing at other leading, international university campuses

- The Management of Campus Design: managing the overall campus design process, including stakeholder management per university strategy and guidelines.

Related to academic engagement, the campus development steering group has representation from every school of the university, as well as from Aalto University Campus and Real Estate (ACRE), AYY and COS. The steering group is supported by project and/or work groups, which prepare material for the steering group. The campus Vice President also regularly arranges discussions and co-creation events with students, faculty and staff. Concerning the task of benchmarking, the campus Vice President follows and collaborates with exemplary international campus development cases and international discussion forums for campus development.

Regarding the management of campus design, the Vice President of Campus Development is responsible for securing the implementation of the strategy, the mission and the values of the university in campus development.

The campus strategy has four development actions, which are divided into tasks and sub-tasks with defined responsible persons and with a timetable of implementation 2015-20. The Vice President of Campus Development is responsible to the President of the university.

Campus development is produced by [ACRE](#). ACRE administers, maintains and develops facilities, properties and related support services of the university. ACRE is also responsible for the construction, maintenance and security of Aalto facilities as well as services related to their use. ACRE coordinates the use of its facilities internally, maintains the facilities in cooperation with property owners, and handles property security matters for the university and centralised procurement of facility-related services (including furniture, mailing services, cleaning and audio-visual technology). ACRE is also responsible for ensuring:

- the facilities support the university's operative objectives in the most cost-effective manner in terms of quality, quantity and comfort
- all areas of safety and security under the responsibility of the unit are at a level that provides employees and students with a safe and undisturbed work environment and meets the requirements needed for research
- the facility administration systems contain a description of all buildings and spaces.

Concerning societal impact, the local innovation ecosystem – developed with external stakeholders and university students, staff and faculty – also has its physical and programmatic counterpart: the wider campus area is an innovation hub. The local innovation hub is actively developed on the Aalto University campus in Otaniemi through working environments for open innovation.

Aalto University is part of the International Sustainable Campus Network. Sustainability is part of the development actions of the campus strategy.

Regarding stakeholder collaboration, the Vice President of Campus Development participates in the Otaniemi Management Group with other landowners of the area and regularly discusses the development of campus areas with authorities and politicians.

7. ENABLERS

7.1 Faculty and staff

7.1.1 HR processes

Competent and highly motivated personnel who are committed to the organization's objectives form the foundation of a university's success. As an employer, the university focuses particularly on the professional development and wellbeing of its employees. Stimulating and forward-looking leadership ensures clear objectives, feedback and motivating work for all university's employees. The university offers an inspiring working environment, challenging tasks, good working conditions and attractive career systems. The aim of Aalto University is to have first class support service solutions that create value for research, teaching and artistic activities. Support for resource planning and recruitments, career and competence development, employment life-cycle, leadership development and efficiency are central to HR management.

The focus areas of the [Aalto Personnel Strategy](#) are:

- attract and retain talent
- enable achievement through leadership
- develop the Aalto way of working
- create value for our core activities through first class support service solutions.

2010	2011–2013	2014	2015	Target state 2020
Merger in practice Definition of the ways of working in Aalto Establishing tenure track system Renewal of the service organisation	Reorganisation of the schools Implementation of the career systems Renewal of the personnel structure Implementation of the HR and management processes Development of academic leadership	Improvement of customer point of view and process efficiency in services Evaluation of the management system Development of engaging leadership culture and practices Enhancing culture that supports wellbeing	Ensuring the effectiveness of the services Strengthening everyday leadership Support to new ways of working Offering targeted support to enhance personnel wellbeing Finalisation of the personnel structure	Aalto University is an inspiring working environment which offers its personnel interesting work and incentivised career systems. Personnel processes serve excellent leadership and high-quality research and teaching. As an employer the university aims at being one of the best, offering support for development, renewal and internationalisation.

Figure 14. Actions based on personnel strategy 2010-2014, and targets for 2015-2020 at Aalto University.

The policies and practices concerning employment at Aalto University are governed by [Finnish employment legislation](#) and the [General Collective Agreement for Universities](#). To facilitate human interaction within the increasingly multicultural Aalto University community, the university has also published the [Code of Conduct in the University Environment](#) to positively guide the community and provide support in problematic situations.

Roles

The President leads the development of personnel supported by the Director of Human Resources and the HR Services organisation at the university, school and department levels. The Provost is responsible for monitoring and developing the tenure track and other academic career systems.

7.1.2 Tenure track and other career systems

To ensure expanding expertise and motivation of its employees, Aalto University has implemented career systems for professors, lecturers, other academic personnel, and for people working within the university's service entities to support their long-term and goal-oriented development at work. The university's rewarding and merit pay is closely tied to its career systems.

Tenure track career system

[The tenure track career system](#) for professors is Aalto University's core academic career path and lays the foundation for the objective to reach world-class status in research, education, artistic activity, academic leadership and societal impact. The university's tenure track career system offers talented individuals a clear and well-supported career path towards permanent professorship (see Figure 15). The principle of the system is to have both the university and the individual commit to an academic career. Clear expectations and incentives are combined with support for personal, professional and academic growth – essential elements in the system.

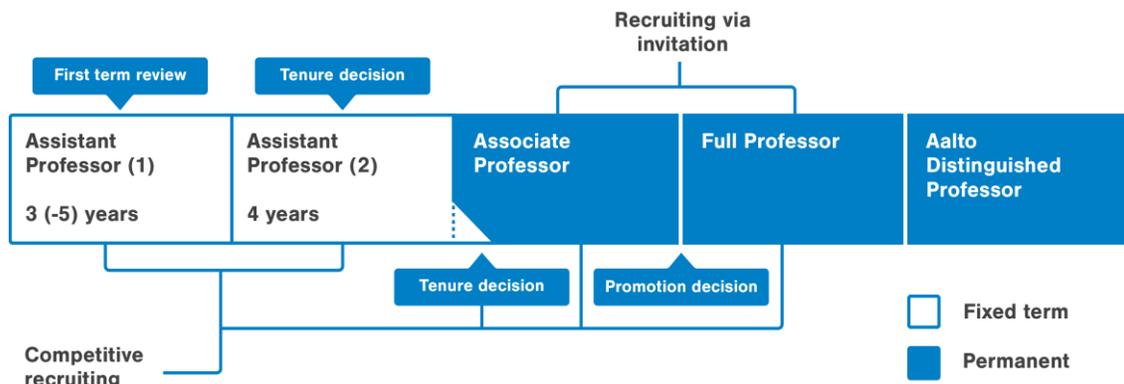


Figure 15. Aalto University's tenure track career path.

Lecturer career system

[The lecturer career system](#) supports the recruitment of academic teachers by offering a career path leading to a permanent position. The aim of the career system is to promote and support the personal development of teaching personnel. The main responsibility of the individuals in the Aalto Lecturer career is teaching, which is complemented by an agreed combination of research and/or comparable artistic duties and service tasks in the scientific community and pedagogical leadership.

Other academic positions

[Other academic positions](#) include those positions outside the tenure track career system or career system for lecturers. By defining other academic positions, the departments, schools or university can recruit personnel for specific purposes and on various grounds. Other academic positions are built around the Staff Scientist and Senior Scientist positions for technical support, Professors (Artistic/Design/Architectural Practices), Professor of Practice and Adjunct Professor titles, Postdoctoral Researcher title, separate Researcher titles, Professionals in Residence titles and titles for long-term visitors. Student titles apply to Bachelor's and Master's degree students and doctoral students who are employed by the university. The principles for awarding the title of [Docent](#) have also been defined.

7.1.3 Recruitment and on boarding

[Systematic recruitment](#) and competence development ensure that the number and competence of Aalto's personnel is correctly proportioned to the academic work as well as service and administrative positions. Choosing the right person for each position is a decision that affects the activities of the entire work community, and thus enough time and resources should be reserved for each recruitment process. Recruiting is based on the strategy and plan of the recruiting unit, and the unit director with budget responsibility always approves the recruitment before an employment contract is signed. Open positions are generally announced openly and publicly on the Aalto University website, intranet and other relevant channels to ensure Aalto University engages top talents both locally and globally. The field of the open position, qualifications and other requirements for the position are specified in the announcement.

A new employee's onboarding is an important part of becoming a member of the Aalto University community. The purpose of onboarding is to give the new employee an overall picture of the university, its objectives and activities, its different units, and the employee's role in this entity. During onboarding, the new employee learns about their job and the operating principles of the organisation. Successful onboarding at the beginning of employment also promotes job satisfaction, wellbeing and community spirit of the new employee and the work community.

Aalto University highlights the role of supervisors as community leaders and role models. Day-to-day supervisory work should ensure or enable:

- implementation of the Aalto University strategy, principles, processes, practices and targets
- everyone has a working environment that supports the achievement of their objectives
- the work in the team is aligned and allocated in a meaningful way
- everyone does his or her part of the shared responsibilities
- success by sharing information, giving feedback and supporting wellbeing
- individuals in planning their careers and personal development
- making decisions when there are a variety of opinions and it is not possible to achieve a shared decision.

The university's instructions for the person performing the onboarding and the new employee are available on Inside for [new employees](#).

Aalto University has an established mentoring programme for its personnel. Mentoring supports a new employee during the onboarding phase, when a person moves to a new position, or when they advance in their career.

Aalto's personnel is increasingly international, and support for foreign faculty and staff is embedded in its everyday HR practices. [Special instruments](#) for integration to the Aalto community and Finnish society include for example Introduction to Finland information packages, language courses, cultural introduction and the Family Friend programme.

7.1.4 Career and competence development

Aalto University supports the development of its employees' competence through career systems for each sub-area, fostering career progression, flexible redistribution of tasks or moving onto a parallel career track.

Aalto University's [competence development](#) is based on 70/20/10 thinking.

- 70% is learning on the job, in other words, learning through personal experience and reflection. On-the-job learning can be carried out by means of responsibilities that are more extensive, projects, job rotation or problem-solving situations, for example.
- 20% is other learning. The development solutions used include feedback, mentoring, coaching, and team and pair work.
- 10% is learning in formal learning environments, such as courses, seminars or using self-study tools.

Aalto University emphasises the importance of teaching skills of faculty and provides teaching staff with the opportunity to participate in pedagogical training. LES offers pedagogical training for teaching personnel. Teaching competence is also assessed in connection with recruitment and advancement on tenure track and lecturer track systems.

HR Services arranges and supervises professional continuing education. Several Aalto units also offer personnel possibilities for in-house or external training to maintain and develop their professional skills.

Units' training plans for the following year are collected annually by HR to the University's training plan. Participation on training, conferences and seminars are collected for the training register.

7.1.5 Employment

Employment at Aalto University is based on an employment contract that defines the principal terms of employment. The detailed terms of the employment relationship are provided in legislation and the general collective agreement for universities. Fair treatment of personnel and ensuring the rights of employees and the employer are important principles in decision making regarding employment matters. More detailed information concerning matters related to the [employment relationship](#), such as holidays, absences, insurance, pension issues and labour legislation, are available in the Aalto University intranet, Inside.

Equality

Aalto University offers everyone an equal operating environment, regardless of the employee's or student's gender, position and background. The objective is to have a good

working and studying atmosphere prevail at the university. Equality work promotes sustainable social and cultural developments of the university.

The successful implementation of equality and diversity necessitates mainstreaming, making the values of Aalto University in all practices of the university visible. The responsibility to promote equality and diversity applies to all members of the university community. Focal actors in the promotion work include university and school management, along with the leaders of departments and other units. All supervisors, teaching personnel and the members of official nomination and selection committees also hold key roles in this regard.

The work to promote equality at Aalto University is supported by active planning and consistent organisation, which is guided by the Aalto University [Equality Plan](#), based on the university's strategy and values. The *Equality Plan* presents the general principles for equality and diversity, the university's will, and sets targets for the planning period.

The work to promote equality is coordinated by [the Equality Committee](#) established at the university.

Wellbeing at work

Aalto University emphasises the comprehensive nature of [wellbeing at work](#) and strives to support all Aalto employees and their supervisors in promoting it. Particular attention is paid to preventing problems, for example, by means of supervisor training, a range of services and tools are available to assist in dealing with challenging situations associated with an individual or work community.

Having clear expectations and personal objectives, and ongoing feedback and recognition are essential for success and wellbeing at work. If the supervisor becomes aware of a challenging situation, he/she is responsible to intervene.

The wellbeing of university personnel is followed by general occupational healthcare statistics, such as absences due to illness and reasons for visiting occupational healthcare. Various pre-emptive and remedial services are available to employees.

Every two years, the university conducts an [employee survey](#) and the results are used for targeting measures to promote the personnel's preconditions for work and wellbeing at work.

Further information: [Ensuring work ability](#)

Work safety

The objective of work safety is to reduce and eliminate risks and hazards at work and in the working environment, and to promote the health, safety and satisfaction of personnel. The university's [occupational safety activities](#) are coordinated by the Occupational Safety Committee and led by the Occupational Safety Manager. The Occupational Safety Committee is a cooperative body between the employer and employees, which addresses issues in health and safety matters that apply to the entire university.

Further information: [Security](#)

7.2 Infrastructure

Aalto University's infrastructure comprises the facilities, equipment and devices that support the implementation of research, teaching and art and creative practices.

To secure high-quality research and teaching infrastructures in Aalto University's core research areas, an infrastructure programme has been created that includes six significant research facilities (so called "mega-infrastructures"): Aalto Ice Tank, Bioeconomy Infrastructure, OtaNano, Metsähovi Radio Observatory, Science-IT, and Aalto NeuroImaging. Infrastructures accepted in the programme are requested to develop easy and open access to the facilities with similar user fees for all, transparent budgeting as well as KPIs used to measure the efficiency and success of the facility. Funding for facility upgrades and operations comes from the university, schools and individual users through user fees. The infrastructures are monitored annually as part of the Management Review, while long-term commitments are made based on external reviews organised at regular intervals.

Significant research infrastructure projects are evaluated annually in the Management Review using the following criteria:

- scientific productivity
- management practices, operational and financial planning
- number of users and utilisation rate
- transparency of pricing and accessibility for all Aalto University users
- user satisfaction
- infrastructure-specific KPIs.

External reviews are carried out at regular intervals to decide future commitment to continue funding of each research infrastructure.

Further information: [Significant Research and Teaching Infrastructure resources](#)

7.3 Finance

Aalto University's funding is mainly comprised of government funding, as established in the *Universities Act*, and funding from research grants and contracts. Additionally, endowment and fundraising contribute significantly to the university's funding.

According to the *Universities Act*, the MEC grants core funding to universities using a [formula](#) that considers strategic funding as well as the financing of education (39%), research (33%) and other education and science policy objectives (28%). The objectives of the funding model are to strengthen national university and science policy and the profile of the university sector in the Finnish higher education system. The funding model looks to the future and aims to safeguard opportunities for long-term development of the universities.

National and international competitive research grants form a significant share of the funding from research grants and contracts. Competitive research grants are particularly important in terms of strengthening the quality and impact of research. The main sources of competitive research grants for Aalto University are the Academy of Finland, Tekes (the Finnish funding agency for innovation), and the European Union (EU).

Funding from research contracts mainly comes from business and commercial activities (such as commissioned research) and jointly-funded activities (e.g., EU and Tekes). The goal is to promote interaction and information exchange between the university and the surrounding environment. Research contract funding is used to create useful connections, facilitate the employment of graduating students and increase the university's standing in society.

Aalto University has internal [instructions for research contracts](#) as well as instructions for [the implementation of projects](#). The instructions cover all phases of a project, from preliminary preparation to implementing funding applications and project completion.

The university's internal funding allocation principles are described in Section 2.2.1 Strategic Planning and Implementation.

The university's [Financial Regulation](#) contains more detailed instructions concerning financial monitoring.

7.4 Services

According to the Aalto University Bylaws, the President approves the structure and organisation of administration and support services. The structure and responsibilities of the services are available in the Aalto University intranet Inside.

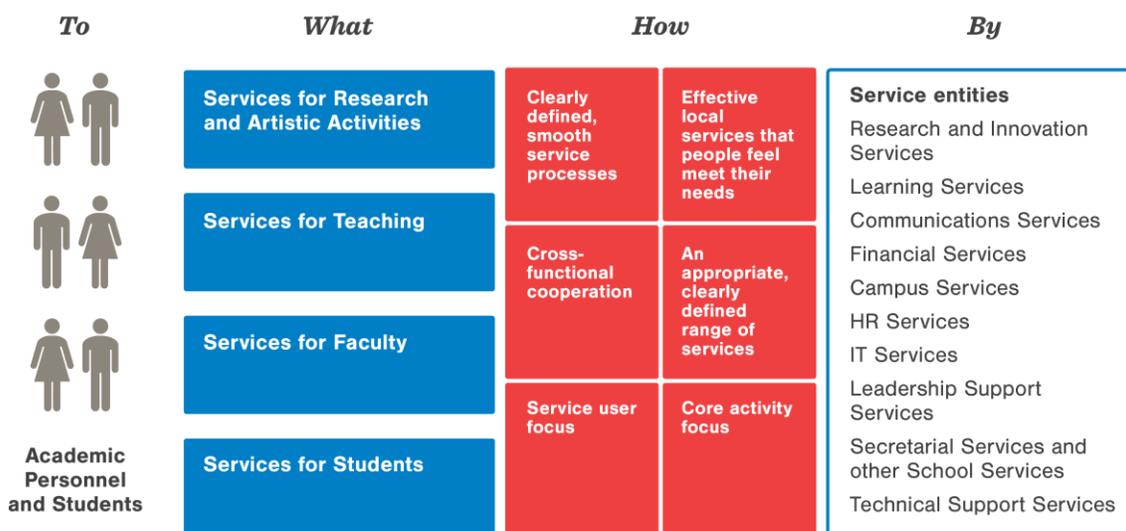


Figure 16. Aalto University service entities supporting academic core activities.

The President leads the university and is assisted in the management of service activities by the leaders of the Aalto University service entities. The joint operative services are centralised at the university level, but the service production mainly takes place in academic units: schools, departments and research groups. The service organisation is implemented primarily as a matrix in which service personnel report to the academic unit management at the department as well as to the manager of the service entity at the school level. The service entity managers of the schools report to the Dean of the school and the leader of the service entity at the university level.

Aalto University introduced a new organisation and matrix in 2010-2011 and has conducted a Service Development Programme during 2013-2015 to improve user

perspectives, quality of services and achieve greater cost-effectiveness in service production. An appropriate, accessible, clearly defined range of services based on clear, smooth and customer-oriented service processes and cooperation serve as enablers for the university's research, teaching and art and creative practices as well as societal impact.

7.4.1 Service entities

The service entities provide support services to the research, teaching and art and creative practices as well as services for the faculty and students.

Research and Innovation Services (RIS)

[Research and Innovation Services](#) (RIS) offer services related to research and art and creative practices as well as their development to innovations and commercialisation of the results. RIS is responsible for coordinating multidisciplinary research and artistic work within the university and participation in international academic networks. They also provide services for acquiring externally funded research and artistic projects and support for management of the projects throughout the lifecycle of funding. RIS manages the university's interactions with stakeholders, maintains corporate and alumni relationships, and develops services and contacts that foster the growth of the innovation ecosystem and entrepreneurship activities. RIS also supports the internationalisation of research.

Learning Services (LES)

[Learning Services](#) (LES) combines services associated with teaching, development of teaching, and students. LES supports Aalto University's students by providing them the services needed during their entire study track. LES also supports teachers and programme directors in the planning, execution and development of their administrative duties related to teaching and programme development as well as teaching competence development. LES supports internationalisation of studying and teaching. Further, LES provides services for external customers, such as potential students and graduates. The Language Centre and Learning Centre (including Library and Information Services) are part of LES.

Communication services (COS)

[Communications Services](#) (COS) are responsible for coordinating and developing the Aalto University brand as well as internal, external and marketing communications of the university. Strategically important events at the university are also organised by COS.

Financial Services (FIS)

[Financial Services](#) (FIS) provides the university services related to securing Aalto's economic sustainability by diversifying and maximising the funding base, driving the efficient use of resources, and providing professional financial services at the university.

Campus Services (CAS)

[Campus Services](#) (CAS) are responsible for the construction, maintenance and security of Aalto facilities as well as services related to their use.

Human Resource Services (HRS)

[Human Resource Services](#) (HRS) supports the achievement Aalto University's objectives by offering the university's faculty and staff services to ensure an inspiring working environment, challenging tasks, good working conditions and attractive career systems. The university HR processes support management, research and teaching work as well as art and creative practices. The university as an employer particularly invests in personnel wellbeing, competence development and creating a well-functioning, multicultural community. HRS also supports the internationalisation and integration of international personnel.

IT Services (ITS)

[IT Services](#) (ITS) produce ICT services for researchers, teachers, students and other staff to make their work more flexible, comprehensive and secure regardless of time and location.

ITS is responsible for Aalto's overall Enterprise and ICT Architecture and related project portfolio management, common applications and platforms development, and maintenance, IT infrastructure, IT equipment and software purchasing, IT end user services and IT security.

Leadership Support Services (LSS)

[Leadership Support Services](#) (LSS) supports the implementation of Aalto University strategy and the development of practices through the analysis of the operational environment, proactive measures and advocacy. LSS is responsible for the internal governance processes, including quality management of Aalto University and its development and for the university's document and registry services. The archives incorporate documents of the university and its predecessors in permanent storage. LSS supports university leadership in developing and coordinating strategic international partnerships, ensuring the university's visibility in relevant international contexts as well as in providing business analysis on the global operating environment. Further, they collaborate with the schools' development and quality managers in matrix.

Technical Support Services (TSS)

Experimental research, participatory teaching and art and creative practices involving multiple technology applications play a key role in the activities of the university. Technical support personnel are responsible for the maintenance of infrastructures, equipment and premises for the university's research and art and creative practices, and for other tasks requiring technical knowledge and skill, such as support for teaching in student laboratories and workshops.

Secretarial Services (SES)

Secretarial services are coordinated at the level of the individual schools and units.

Roles

The leaders of the service entities are responsible for directing and development of the entities and efficiency and performance of the services provided. Administrative and support services have been organised as listed in Table 8.

Table 8. Service entities, their responsibilities and communication at Aalto University.

Service Entity	Responsibilities	Reporting
Research and Innovation Services (RIS)	Vice President, Research and Innovation	Provost
Learning Services (LES)	Vice President, Education	Provost
Communication services (COS)	Communication Director	President
Financial services (FIS)	Chief Officer Finance	President
Campus services (CAS)	Chief Officer Finance	President
HR Services (HRS)	Human Resources Director	President
IT Services (ITS)	Chief Digital Officer	President
Leadership Support Services (LSS)	Provost	President

7.4.2 Evaluation of service quality

The Service Development Programme emphasises the importance of different foci: service user, core activity and cross-functional cooperation in service production. The involvement of service users in development work is an essential part of Aalto's service development.

The service entities have a Resource Dialogue process in which the school Deans evaluate the service performance and advise the President in the allocation of funding for the service functions.

Aalto University conducts an annual survey on the quality of internal services, targeted at both academic personnel and the staff of service units. The services survey is designed to measure personnel satisfaction asking general- and service-specific questions. The results of the survey are summarised for university management, while service entities process the feedback in their own organisations. Service entities also carry out their own surveys for narrower target groups and/or external stakeholders.

Guided by the service development principles and survey results, the competence profile of personnel is maintained and developed systematically with particular emphasis placed on supporting academic management and the work of supervisors as well as organising relevant training. In addition to centralised competence development, the university's units offer personnel different possibilities for relevant training. Career systems support personnel competence by creating opportunities that support career advancement, flexible job rotation or moving on to a parallel career.

At the individual level, development discussions between the service employee and supervisor take place twice a year. The discussions review the results from the previous year and plan the key objectives and competence development for the upcoming year.