

The directive has been issued based on clause 1) of § 11 of the Statutes and clauses 2 (2) 7) and 12) of the Statutes and in compliance with the Strategic Plan of Tallinn University of Technology 2021–2025 adopted by resolution No 1 of 19.02.2021 of the University Council.

1. I hereby approve the Principles for the Development and Management of the Real Estate of Tallinn University of Technology (annexed).

2. The Principles for the Development and Management of the Real Estate serve as the basis for initiating and prioritizing real estate development projects and managing real estate.

3. Implementation thereof is coordinated by the Director for Administration.

4. The directive shall enter into force upon signature.

Approved by Rector's directive No 1-8/41 of 23.10.2023

In force from: 23.10.2023

Principles for the Development and Management of the Real Estate of Tallinn University of Technology

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Principles for the development of real estate

VISION

The campuses of Tallinn University of Technology are inspiring environments characterised by user-friendliness and innovation and serving as hubs for developing and testing innovative solutions aimed at supporting teaching and research, reducing environmental impacts, and facilitating cost-effective operations through smart solutions.

The vision stems from the university's Strategic Plan 2021–2025, which outlines the goal of developing a smart and environmentally friendly university.

Real estate development is conducted comprehensively and based on the same principles, regardless of the location of the real estate. These principles serve as the basis for developing real estate used by the student hostel, sports club and other subsidiaries.

The goal of real estate development is to:

- ensure that the environment of the campuses and buildings meets the teaching and research requirements and needs of the members of the university;
- improve space utilization efficiency of the campuses;
- improve energy performance of the buildings;
- modernize utility systems and digitize their management processes;
- reduce the lifecycle costs of the buildings.

The vision and goals will be achieved based on three sets of principles:

INSPIRING AND USER-FRIENDLY CAMPUS

Real estate development shall meet the teaching and research requirements.

We ensure that high-level teaching and research requirements are met, utilizing the best available knowledge and making the most of interdisciplinary and co-creation-based solutions. Methodological and technological advancements in teaching and research determine the development of the academic buildings and research infrastructure. The university's priority is to focus on the use of relevant technical solutions on campuses to support the rapid expansion of climate-friendly digital working and studying opportunities.

The campuses shall provide an appealing and integrated environment that blends with the surrounding urban space.

The campuses shall be open to the members of the university and the public. We encourage companies engaged in areas related to the activities of the university to operate on the campuses. We are actively seeking ways to expand shared areas for members of the university and campus users, both indoors and outdoors. This involves creating comprehensive, safe solutions that enable flexible space usage for various activities. The location of dormitories on campuses contributes to a healthy, sustainable living environment and provides high-quality leisure and sports opportunities. We are actively collaborating with local governments, companies and potential funders.

The campuses shall be architecturally and technologically innovative.

We design the campus environment, reconstruct the existing buildings and erect new ones by applying the best current practices and exploring innovative solutions. Valuing the historical nature of the campuses, we aspire to strike a harmonious balance between the old and the new. We design campuses and buildings using the best solutions proposed as a result of architectural design competitions. We provide opportunities for researchers and students to experiment with innovative ideas and gather usage data.

Collaboration shall be carried out with academic units to identify the best practices for operation.

The university as a whole contributes to engaging the best know-how in the development, management and sustainable development of real estate. Involving both internal and external experts to solve tasks related to the university's development projects is a standard practice.

ENVIRONMENTALLY SUSTAINABLE CAMPUS

Buildings are reconstructed with the aim to achieve the energy performance class B and new buildings are designed as nearly zero energy buildings.

In its Strategic Plan, the university has set the goal of achieving climate neutrality by 2035. Real estate development and climate neutrality strategies must be aligned; real estate development and reconstruction shall support the goal of climate neutrality. Improving the energy performance of buildings is integrated into the projects outlined in the 10-year action plan for real estate development.

We increase the use of renewable energy and manage the energy efficiency of buildings.

Real estate optimization and improving space efficiency through increased occupancy rate and frequency of use contribute to energy efficiency. New buildings must be designed and existing buildings must be renovated with a focus on reducing emissions and materials and processes with a lower carbon footprint shall be utilized in construction. Energy supply partners shall be selected based not only on the price, but also on the suppliers' readiness to provide green energy.

We promote the use of eco-friendly transportation methods.

Prioritizing the development of public transport options for the university community is essential for both travel comfort and time efficiency. To this end, we support the infrastructure for charging electric scooters, bicycles, and cars, as well as the construction of storage facilities for bicycles, changing rooms and washing facilities. We also collaborate with companies providing transportation sharing and rental options.

SMART AND COST-EFFECTIVE CAMPUS

We will implement digital solutions to manage utility and security systems, as well as improve mobility and indoor climate control on the campuses and in the buildings.

Digital control enables centralized regulation of spatial areas, customized to meet cost-effectiveness and user convenience expectations and tailored to the needs of diverse user communities, while also enhancing the ability to manage existing real estate in a cost-optimal manner.

Buildings shall be designed and space needs of units shall be assessed in adherence to the agreed standards for space utilization.

Consistent assessment of surface utilization according to the established standards facilitates spatial portfolio optimization and the reduction of surplus real estate. Cross-utilization of rooms helps to improve space efficiency. The university's space utilization statistics and efficiency indicators provide both a quantitative overview of the space portfolio in square meters and a dynamic picture of continuous space utilization. Premises remaining vacant in the course of the optimization of the university's space portfolio that are no longer required by the university shall be rented out to entrepreneurs engaged in areas related to the activities of the university or providing services to the members of the university.

Continuous assessment of the real estate holdings and the condition of buildings

Regularly used real estate depreciates over time, as a result of both physical wear and changing user expectations. The methods of work and the technical requirements for health protection, occupational safety, and utility systems are also changing. To have an overview of the situation, the Real Estate Office assesses functional compliance of the buildings with the requirements of the university's core activities and the compliance of digital and utility systems with the requirements set for the systems once every three years. The condition of the structural elements of the buildings and the extent of wear and tear on the interior finish is assessed once every five years.

Funds required for real estate development and renovation shall be channelled to projects that fulfil the goals.

When prioritizing building development or renovation, the condition of the building is compared to other buildings to allocate resources efficiently in a resource-constrained environment, focusing on projects that best support the goals. Each new development project, including technological improvements, must reduce the university's real estate footprint and have a

positive impact on the lifecycle cost of the building. Development projects are planned on the assumption that the property being developed will undergo comprehensive renovation, taking into account both architectural, sustainability and technological requirements stemming from the functionality agreed with the users.

Real estate lifecycle management

To manage the university's real estate, the Real Estate Office applies the best practices and knowledge available in the field and involves the competence of the university's researchers to address the challenges related to real estate management. The maintenance of university property should be inconspicuous but transparent and easily comprehensible. The content and cost-effectiveness of the activities required for maintenance are systematically assessed following the EVS 807:2020 standard, on the basis of which decisions are made on organization of the necessary activities. In the provision and procurement of real estate maintenance services, close collaboration is carried out with university members and leaders of the green transition.

Applying the concept of a smart property manager:

- The Real Estate Office **keeps regular records of building lifecycle costs** and strives to optimize them through **the implementation of smart technical solutions** and by shaping the habits of the members of the university.
- When procuring services and products, the aim is to attain the optimal balance between quality and price.
- Management activities are planned based on **ongoing, systematic and well-documented inspections of the technical condition** of buildings and outdoor space, on the basis of which operational decisions regarding the maintenance of the campuses are made.
- The BIM model is used to record the useful life and actual condition of the utility systems of the buildings and **the capacity enabling operational digital control and monitoring of the systems** will be built.
- **Integrated, smart software solutions** facilitate planning, activities and gathering feedback from users of the buildings, including displaying information about the environment and equipment to users in the physical environment, offering an overview of system operations and guidance on seeking assistance when needed.
- Users of the buildings receive regular updates on matters pertaining to building management and actively participate in the decision-making process.
- **University campus services**, such as parking arrangements, catering, and charging stations, shall meet the needs of the users of the university and incorporate state-of-the-art technological solutions.
- **We contribute to the development and implementation of environmentally friendly campus management and maintenance plans** (incl. the waste management plan, green area maintenance plan, guidelines for conducting green public procurements, etc.). When procuring products and services required for the management of the campuses, it should become standard practice to assess and compare their direct and indirect climate impact. To this end, emissions reduction requirements shall be set for the products and services.



Drawing up a 10-year action plan for real estate development and renovation

Works related to real estate development and management are planned and organized on two levels.

Annual work schedule. Every year, the Real Estate Office agrees on a repair work schedule by taking into account the volume of the current year's real estate fund and the repair fund covered by internal invoices. The schedule specifies the list of works to be started or completed during the year, the estimated costs and the funding sources. In the coming years, the primary focus will be on optimizing the use of office and study spaces on the Mustamäe campus, organizing and preparation of repair work necessary for moving, enhancing the capacity of digitally controlled utility systems of buildings and developing renewable power generation capacity.

10-year action plan. Every year, the 10-year real estate action plan drawn up based on the real estate development strategy is updated. The plan prioritizes large-scale projects for improvement of the buildings and the environment and indicates the estimated cost and sources of funding of the projects. The action plan is discussed annually and approved by the extended Rectorate and the University Council, in conjunction with the approval of the university's budget strategy.

When planning the construction of buildings of substantial volume or having significant impact or reconstruction of the campuses, the development concept and the sketch designs are presented to the community for public discussion.

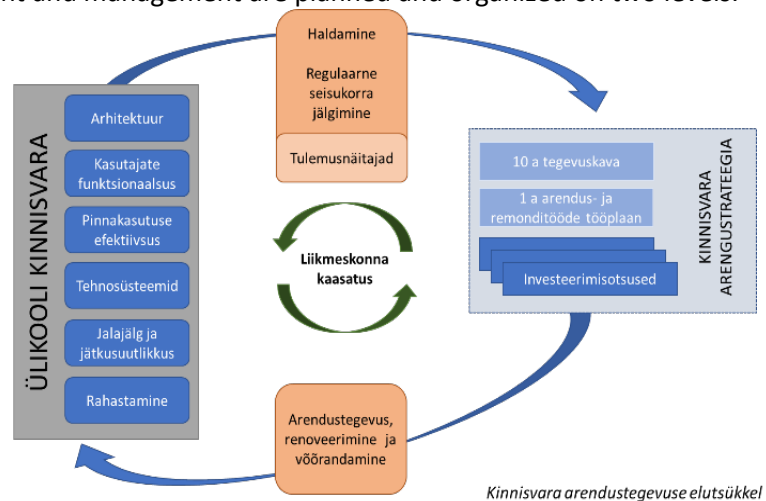
An action plan is prepared based on the regular assessment of property condition and the requirements for the property.

- The Real Estate Office organizes assessment of the space efficiency of the buildings in compliance with the agreed standard for space utilization, expert assessment of the condition of building structures, digital and utility systems and keeps records of the lifespan of the technical solutions implemented. Surveys are also conducted among the heads of the units utilizing the buildings to identify the functional requirements of the users of the buildings.
- The university's Office of Academic Affairs helps to determine the impact of changes in teaching on classrooms by assessing the furnishing, technical equipment of the premises as well as the different types of classrooms.
- The requirements for real estate development stemming from the development of research infrastructure are assessed in collaboration with the Research Administration Office.
- The Centre of Climate Smart Future defines the methodology for measuring the carbon footprint of university buildings.

Starting from the 20th year of use of a building or the completion of its last major repairs, at least once every three years, the Real Estate Office schedules major repairs of the building in collaboration with the unit utilizing the building.

The decision to develop or renovate a building is made by considering:

- whether the building meets the functional requirements of the users;
- the key performance indicators for space efficiency of the building and considerations of the potential impact of modification of the indicators on the improvement of space efficiency of the campus;
- the energy class of the building and the possibility to improve it;
- compliance of the utility systems of the building with contemporary standards and the need to modernize them;
- the potential for reducing the lifecycle costs of the building;
- the goal to optimize the administrative costs of the building and the repair fund;



- the prospect of investment considering the university's budget strategy.

Fulfilling the university's real estate development goals may result in conflicting effects on the development of specific major buildings (e.g. conservation of heritage value reduces the possibilities for planning optimal lifecycle costs). Therefore, for every investment with a significant impact, a well-considered decision shall be made in accordance with the procedure established by the university. The quality of the decisions and execution of projects is enhanced by implementation of the Smart Client concept. This applies to the activities of both the users of the buildings and the Real Estate Office as the contracting authority and organizer of work.

In the first quarter of each year, the Real Estate Office publishes an overview of the condition of the real estate on the intranet on the website of the Real Estate Office.

Utilization and realization of real estate unused by the units

The Real Estate Office rents out vacant spaces in the main building to external companies with the intention of creating an all-encompassing work and leisure environment for the members of the university, ensuring the availability of catering and other expected services. Another goal is to rent out the premises in the main building preferably to companies engaged in areas related to the activities of the university in order to earn rental income from the vacant premises. Lease contracts for the premises in the main building must allow for the space to be vacated at reasonable costs with up to one year's notice in order to ensure flexibility in planning the space required for the main activities and to support the endeavour to concentrate activities in the main building and reduce the use of buildings outside the main building complex.

When buildings outside the main building complex are vacated, a business case is created each time, where the following options for realizing the value of the property are considered:

- **Rental** to increase the rental yield on the portfolio and decrease maintenance costs. Both short-term and long-term agreements are used. If capital investments are required for the conclusion of rental agreements, the planned rental income must be sufficient to cover the corresponding capital investments or service the loan obligations.
- **Development to raise own income.** The university is not entitled to engage in real estate development not connected with its activities laid down in the Statutes, which is why the opportunities for development for commercial purposes are limited and individual cases require, in addition to economic analysis, definition of a legal perspective before deciding on investments required for development.
- **Sale and sale-leaseback.** When selling real estate, sale-leaseback transactions can be considered, especially when additional capital is needed for renovation of buildings. After the sale and renovation, the building will be rented for use by the university.
- **Cooperation projects with the public or private sector.**

Funding

Real estate investments (incl. external loans and their servicing costs) are funded through the capital budget. Historically, allocations from current budget revenues (general fund) to the capital budget have consistently been lower than the real estate depreciation. This implies that, without additional financing, the reinstatement value of the buildings cannot be preserved in the long term.

The university's aim is to steadily increase permanent funding for the capital budget from general funds to match the rate of depreciation in order to maintain a minimum sustainable level in the long term. In order to supplement the budgetary resources, the following measures shall be considered: seeking one-time targeted subsidies, freeing up capital by selling unused property and mobilising additional debt financing for larger projects.

In accounting, the university's land, buildings, and infrastructure assets are recognized at cost. Buildings, infrastructure assets and their improvements are subject to depreciation according to the rates set out in the Accounting Policies and Procedures. External real estate valuations are necessary for the preparation of investment decisions and required before purchase and sale transactions and long-term renting of

standalone real estate. Valuing the main building complex is impractical as, from a long-term perspective, its sale or large-scale lease-out is unrealistic. Once a year the value of property outside the university's main building complex is reviewed based on the assessment of the university's experts and every 2-4 years the market changes are accounted for based on the assessment of real estate appraisers.

Performance indicators of real estate development

The fulfilment of the goals of the real estate development strategy is assessed annually by monitoring the following performance indicators:

Performance indicator	Description	2022 (actual)	Goal for 2035
Closed net area used by the university	Conserved buildings have been excluded from the calculation. The buildings used by the student hostel are included in the calculation.	194,952	177,000
Weighted average energy class of the buildings used	Estimated energy class of the Mustamäe campus and the student hostel weighted by square meters of buildings. Recalculations will be made after the assessment of the energy class of the buildings of the Colleges and the Estonian Maritime Academy.	E-F	C-D
Self-generation capacity	Solar panels are used in the Ehituse Mäemaja building, family dormitory, to a lesser extent in Särghaua and the Virumaa College building.	58.8 MWh	750 MWh
KPT index (repair debt index, which should ideally be 0)	Realization of the large-scale projects has been taken into account in the calculations for 2035	0.18	0.14
Share of income from real estate investments			

Performance indicators are calculated annually as at the end of year and the results are published on the intranet on the Real Estate Office's website by the end of the first quarter of the following year.