



## Annual Report 2023













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Form of ownership Legal person governed by public law

Main activities 1) academic research

2) provision of higher education based on integrated teaching and research activities

3) provision of teaching- and research-based services to the society

Financial year 01.01.-31.12.2023 Auditor KPMG Baltics OÜ

Council 11 members
Council Chair Ruth Oltjer

Attached Report of independent sworn auditor

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# Activity Report 2023

UNIVERSITY GOVERNANCE
OPERATING ENVIRONMENT
TEACHING AND STUDIES
RESEARCH
ENTREPRENEURIAL UNIVERSITY
CONTRIBUTION TO SOCIETY
ORGANISATION

## Rector's foreword



In 2023, the university focused its attention on several issues in which Estonian society expects effective solutions: the transition to Estonian-language general education and the new economic model in Ida-Viru County, introduction of artificial intelligence, boosting the growth of research-intensive entrepreneurship, and so on. Besides these major changes, the university is also affected by risks associated with global geopolitical uncertainty.

The University of Tartu and Tallinn University have agreed with the government to double the number of admissions to teacher education and support specialist curricula in the 2023/24 academic year to help cover the need for new teachers, especially in connection with the transition to Estonian-language general education. This places an additional burden on all faculties and institutes involved in teacher education, including Narva College. We have also set up a consortium with Tallinn University of Technology to support the technological and societal transition in Ida-Viru County. Eleven research projects have been initiated at the University of Tartu to this end, and a university representative has started work in Ida-Viru County to enhance cooperation with local businesses.

In 2023, we also gave a new boost to the university's entrepreneurship relations. UniTartu Ventures, the holding company which invests researchers' intellectual property, increased its portfolio and its activities have attracted the interest of other universities. It was also a year of preparing for the launch of the Estonian Multiomics Company, so we could, now with external partners, continue developing the unique biobank built up in Estonia over the past decades and the related knowledge.

At the same time, we need to maintain our staff to carry out all these enormous tasks and ensure the quality of the university's core activities. The increase in activity support enabled us to raise the average salary of university staff by about a tenth in 2023. We hope that the agreement with the government on the increase in funding will hold and we can close the gap in higher education funding that has widened over the years.

Although the university's budget increased by 6.9% compared to 2022, we must admit that in the light of the 9.2% increase in the consumer price index and against the background of the general economic environment, the university's financial position actually worsened. We also see problems with the research funding allocated from the state budget – the money is there, but it does not reach research institutions and companies from the ministries. We will continue working together with other universities to change the proportions of research funding so that the baseline funding for research increases.

Our researchers, however, have maintained research excellence at the University of Tartu: in 2023, the Centre for Personalised Medicine and the Centre for Digital Bioengineering, which received Estonia's largest research funding, started operating. In addition, funding was awarded to six new centres of excellence in research led by the University of Tartu and four centres involving our researchers. Four projects received European Research Council grants.

When ensuring excellence in research and creating good working conditions for the university family, the impact of the physical environment cannot be underestimated. During 2023, working conditions were improved in 30 buildings, and we also decided to construct a new academic and research building in Maarjamõisa field. The environmental impact of the university's activities is no less significant. With €5 million in public funds, we increased the energy efficiency of the university's buildings; for example, by installing solar parks and energy storage equipment and converting several buildings to district cooling and heating.

The university will soon start preparing a new strategic plan. This does not just mean creating a vision document but active involvement of university members, alumni and partners in discussions over the future of Estonia's only universitas and, thus, of higher education. I sincerely hope that as many people as possible will contribute to the strategic planning process.

Toomas Asser Rector of the University of Tartu

## Abbreviations

### Universities

EULS	Estonian University of Life Sciences
TLU	Tallinn University
TUT	Tallinn University of Technology
UT	University of Tartu

## Fields of study

EDU	Education
HUM	Humanities and arts
ICT	Information and communication technologies
SCI	Natural sciences, mathematics and statistics
AGR	Agriculture
SOC	Social sciences, journalism and information
SER	Services
ENG	Engineering, manufacturing and construction
HEA	Health and welfare
BUS	Business, administration and law

## Faculties of the University of Tartu

LT	Faculty of Science and Technology
MV	Faculty of Medicine
SV	Faculty of Social Sciences
HV	Faculty of Arts and Humanities

### Other abbreviations

A2025	University of Tartu Strategic Plan for 2021–2025
ARWU	Academic Ranking of World Universities by Shanghai Ranking Consultancy
ECTS	Credit point of the European Credit Transfer and Accumulation System
EHIS	Estonian Education Information System
EIT	European Institute of Innovation and Technology
ENLIGHT	European university Network to promote equitable quality of Life, sustainability and Global engagement through Higher education Transformation
ERC	European Research Council
ESERO	European Space Education Resource Office
ESI	Essential Science Indicators
ETIS	Estonian Research Information System
EU	European Union
FTE	full-time equivalent
GDP	gross domestic product
GHG	greenhouse gases
JRC	Joint Research Centre of the European Union
LERU-CE7	Partnership programme of the League of European Research Universities and sever Central European universities
mEUR	million euros
MoER	Estonian Ministry of Education and Research
MOOC	massive open online course
MTÜ	mittetulundusühing (non-profit organisation)
ΟÜ	osaühing (private limited company)
QS	QS World University Rankings by Quacquarelli Symonds
SIS	University of Tartu Study Information System
RDIE	Estonian Research and Development, Innovation and Entrepreneurship Strategy 2021–2035
THE	Times Higher Education World University Rankings
UTTV	University of Tartu video portal

## Key figures

Employee figures are given as at 31 December.

Student figures are given as at 10 November. The number of students does not include external students, visiting students and resident doctors. The first level of higher education includes professional higher education, bachelor's studies and integrated bachelor's and master's studies.

The number of **graduates** of a given year refers to students who completed their studies during the period from 1 October of the previous calendar year to 30 September of the given calendar year.

The number of curricula in which students were enrolled includes curricula in which students were enrolled as at 10 November (including all joint curricula).

The number of *publications* includes Estonian Research Information System (ETIS) categories 1.1, 1.2, 1.3, 2.1, 2.5, 3.1, 3.2, 3.3, 4.1, 5.1, 6.3, 6.4. High-level publications include ETIS categories 1.1, 1.2, 2.1 and 3.1. The number of publications includes those authored by persons who had a valid employment contract with the University of Tartu or who were enrolled as regular doctoral students in the corresponding calendar year. The data retrieved from ETIS as at 15 February of the following year.

	2019	2020	2021	2022	2023
Employees					
Number of employees	3,635	3,767	3,767	4,141	4,367
Number of employees (FTE)	2,957	3,055	3,166	3,368	3,540
incl. academic staff	51.3%	52.5%	52.1%	54.9%	56.5%
Number of academic staff (FTE)	1,518	1,604	1,650	1,847	2,001
incl. PhD holders	76.3%	74.5%	74.0%	68.4%	63.3%
incl. international academic staff	13.9%	15.5%	17.7%	20.0%	20.8%
Number of professors (FTE)	186	186	209	217	220
incl. female professors	25.9%	26.4%	28.3%	31.1%	32.3%
Students					
Number of students	13,395	13,641	13,909	14,263	14,778
at the first level of higher education	60.6%	60.6%	60.6%	61.6%	63.1%
in master's studies	30.9%	31.1%	31.1%	30.4%	29.2%
in doctoral studies	8.6%	8.3%	8.3%	8.0%	7.7%
Number of international students	1,660	1,678	1,746	1,820	1,614
percentage of all students	12.4%	12.3%	12.6%	12.8%	10.9%
Number of graduates	2,715	2,778	2,961	2,764	2,919
incl. number of PhD graduates	129	118	105	122	129
Curricula					
Number of curricula to which students were admitted	159	159	160	150	141
incl. English-taught curricula at the first and second level of higher education	30	29	31	32	31
Number of curricula with enrolled students	197	188	182	189	188
Research publications					
Number of publications	2,834	2,813	3,037	2,846	2,803
incl. number of high-level publications	1,983	1,995	2,271	2,086	2,009
incl. number of publications of the category 1.1	1,480	1,472	1,758	1,581	1,528
Position in international university rankings					
THE	301-350	251-300	251-300	201-250	301–350
QS	301	285	300	296	358
ARWU	301-400	401-500	401-500	501-600	701-800

More detailed data are available on the UT website statistika.ut.ee.

## UNIVERSITY GOVERNANCE

The highest decision-making body of the University of Tartu is the council, who is responsible for the university's economic activities and long-term development, approves the university's statutes and adopts the strategic plan and budget. The council has 11 members: five nominated by the University of Tartu, five by the minister of education and research, and one by the Estonian Academy of Sciences. In 2023, the council comprised:

- · Ruth Oltjer (Council Chair), General Manager of AS Chemi-Pharm,
- · Arto Aas, Managing Director of the Estonian Employers' Confederation,
- · Jaan Eha, UT Professor of Cardiology,
- · Heidi Kakko, Chair of the Board of UniTartu Ventures,
- · Birute Klaas-Lang, UT Professor of Estonian as a Foreign Language,
- Marja Makarow, member of the Finnish Academy of Science and Letters, President of Academia Europaea,
- Mari Moora, UT Professor in Community Ecology (until 31 July),
- · Martin Aleksander Noorkõiv, UT doctoral student in Media and Communication,
- Tuul Sepp, UT Professor in Animal Ecology (from 12 October),
- Elmer Sterken, Professor of Monetary Economics of the University of Groningen,
- Urmas Varblane, UT Professor of International Business.



Council members (front row from left) Birute Klaas-Lang, Mari Moora, Ruth Oltjer, Heidi Kakko, Marja Makarow, (back row from left) Arto Aas, Ants Nõmper, Jaan Eha, Urmas Varblane

The senate is the university's highest academic decision-making body, responsible for the teaching, research and development activities at the university and ensuring the excellent quality of these activities. The senate comprises 22 members: the rector as chair, four representatives of each faculty, and five student representatives. The senate elections were held on 16 May and the new composition took office on 1 July. In 2023, the senate included:

representatives of the Faculty of Arts and Humanities

- · Professor Aivar Kriiska (until 30 June),
- Professor Raili Marling,
- · Lecturer Ave Matsin (until 30 June),
- Professor Urmas Nõmmik (from 1 July),
- · Professor Renate Pajusalu,
- · Professor Pärtel Piirimäe (from 1 July),

representatives of the Faculty of Social Sciences

- Professor Eiki Berg (from 1 July),
- · Professor Veronika Kalmus,
- Professor Evelyn Kiive (until 30 June),
- Professor Marju Luts-Sootak,
- · Professor Maaja Vadi,

representatives of the Faculty of Medicine

- · Professor Külli Kingo,
- Professor Maris Laan (from 1 July),
- Associate Professor Tanel Laisaar (until 30 June),
- Professor Pärt Peterson (until 30 June),
- · Professor Ana Rebane (from 1 July),
- · Professor Mihkel Zilmer (until 30 June),
- Professor Anneli Uusküla (from 1 July),

representatives of the Faculty of Science and Technology

- Professor Peeter Burk (until 30 June),
- · Professor Krista Fischer,
- Professor Heikki Junninen (from 1 July),
- Professor Marco Kirm (until 30 June),
- · Professor Tonu Meidla (until 30 June),
- Professor Evelyn Uuemaa (from 1 July),
- Professor Jaak Vilo (from 1 July),

student representatives (until 30 June)

- Sven Anderson,
- · Joosep Heinsalu,
- · Liisa Marie Kerner.
- · Katariina Sofia Päts.
- Anna Zobel,

student representatives (from 1 July)

- · Karolin Allikas,
- · Liisa Marie Kerner,
- · Renar Kihho,
- · Karl Erik Piirimees,
- Hanna Britt Soots.



New senate composition

The **rector** manages the everyday life of the university, following the resolutions of the council and the senate. The rector is responsible for the lawful and expedient use of the university's assets. The election of the rector took place on 20 April, with Professor Toomas Asser re-elected for a second term. The rector's new term of office started on 1 August.

In addition to the rector, the Rector's Office comprised, until 31 July, Vice Rector for Research Kristjan Vassil, Vice Rector for Academic Affairs Aune Valk, Director of Administration Kstina Noormets, Head of Finance Kalle Hein, Academic Secretary Tõnis Karki, Director of Development Taivo Raud and deans of faculties.

Professor Mari Moora took up her post as Vice Rector for Research on 1 August. The post of vice rector for development was re-established, with responsibility for planning the university's development, implementing the strategic plan, sustainable development, the university's business relations, knowledge transfer and protection of intellectual property, and international cooperation. As of 1 August, Vice Rector for Development is Professor Tonu Esko. The new composition of the Rector's Office retained the current vice rector for academic affairs, director of administration, head of finance and academic secretary.

Studies and research are conducted at the University of Tartu in 28 institutes and three colleges of **four faculties**:

- the Faculty of Arts and Humanities (HV),
- · Faculty of Social Sciences (SV),
- · Faculty of Medicine (MV),
- Faculty of Science and Technology (LT).

The faculties are headed by **deans** who, for the term ending in 2023, were

- Professor Anti Selart at HV,
- Professor Raul Eamets at SV, Professor Janno Lahe as Acting Dean from 24 August,
- Professor Margus Lember at MV,
- · Professor Leho Ainsaar at LT.



The new composition of the Rector's Office since August: (front row from left) Aune Valk, Mari Moora, Toomas Asser, Kstina Noormets, Margus Lember, Leho Ainsaar, Janno Lahe, (back row from left) Tõnis Karki, Kalle Hein, Tõnu Esko

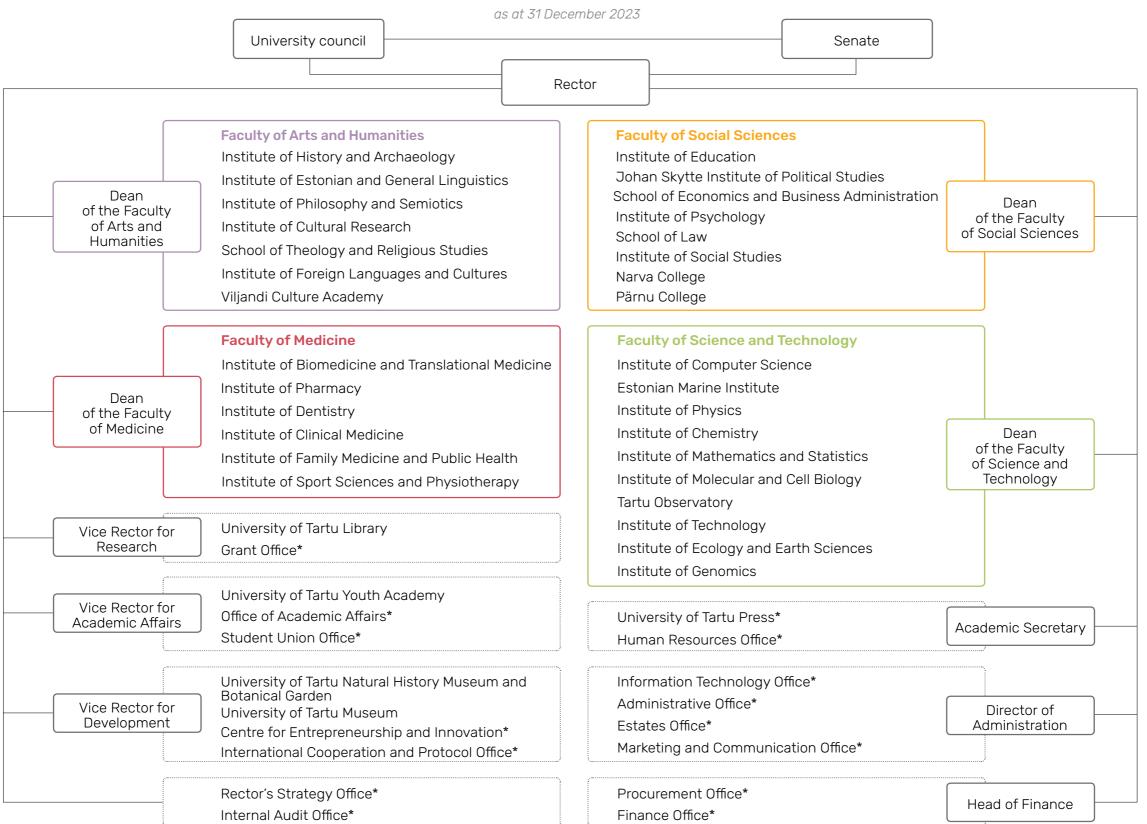
Dean elections took place on 3 October. The term of office of the elected deans started on 1 January 2024.

The academic structure also includes four non-faculty **institutions**:

- University of Tartu Museum,
- Natural History Museum and Botanical Garden,
- University of Tartu Library,
- · Youth Academy.

The student representative body is the **Student Union** which is governed by a 20-member parliament and a three-member board. Until 30 June, the board comprised Katariina Sofia Päts (president), Hanna Britt Soots and Siret Siim, and from 1 July, Renar Kihho (president), Teele Kanarbik and Anette-Mai Pirk-Birk.

## University structure



\* support units

## Strategic plan

In 2023, implementing the **strategic plan for 2021–2025 (A2025)** continued. The strategic plan is specified by other strategy documents: language and internationalisation principles, financial strategy, strategy for the involvement of private funds, and spatial development strategy.

To implement the strategic goals, the Rector's Office compiles an **action plan** each year and agrees on related responsibilities and the use of central development grants. The 2023 action plan linked the development tasks of A2025 and the performance agreements of the members of the Rector's Office and the centrally allocated development grants for achieving them (development fund, strategic development grants for degree studies, performance-based funding for faculties and the rector's reserve fund). In August, when the new composition of the Rector's Office convened, the action plan was slightly updated.

The key topics in the university's 2023 action plan concerned:

- teaching Estonian to international students and staff; substantive development and increase in the volume of teacher education in connection with the country's transition to Estonian-language general education;
- intensifying international cooperation with partner universities and increasing study mobility;
- planning for the future of studies, expanding flexible learning opportunities and implementing the recommendations of internal assessment and institutional accreditation;
- developing doctoral studies, attracting external research funding and participating in the preparation of the structural funds actions for the new period;
- developing support services for business cooperation, developing research-intensive entrepreneurship, and preparing for the just transition in Ida-Viru County;
- strengthening the competitiveness of university staff salaries, promoting sustainable development and the development of the digital university.

The implementation of the strategic plan will be assessed on the basis of 19 key indicators and monitored through digital dashboards. Data about the university's core activities and assets are publicly available on the statistics dashboard statistika.ut.ee.

A more detailed overview of the main results in different areas can be found in the following chapters of the report.

## A2025 key performance indicators

Key performance indicators concerning staff do not include junior research fellows. The doctoral reform is being implemented gradually, with some doctoral students gaining the status of junior research fellow each year. If they were included, the level of key performance indicators would fluctuate each year due to changes in the number of junior research fellows rather than substantial changes in the measured indicator.

The graphs in the last column show the results for the key performance indicators in 2020, 2021 and 2022 compared to the linear movement from baseline to target (grey dotted line).

In the following chapters, information about the achievement of the key performance indicators of the strategic plan is marked with "A2025".



	Danalina 2020	Dooult 2027	Torqut 200F	Trand 2000 2007
International national university	Baseline 2020	Result 2023	Target 2025	Trend 2020-2023
Number of graduates from teacher-training curricula	276	320	350	
Percentage of international employees taking Estonian language courses	28%	42%	45%	
Percentage of international students taking Estonian language courses	28%	44%	75%	
Percentage of international graduates	15%	17%	13-15%	
Percentage of international academic employees	12.5%	14.5%	15-20%	
Percentage of students participating in learning mobility	12.7%	11%	18%	
Education				
Dropout rate	9.5%	9.6%	< 9%	
Percentage of academic employees who actively participated in teaching-related development activities	41%	48%	50%	
Students' satisfaction with the teaching of courses	86%	89%	95%	
Number of continuing education learners	40,493	58,698	43,000	
Percentage of newly admitted students with outstanding study results	57%	78%	60%	
Efficiency of completing doctoral studies	35%	36%	50%	
Research				
Percentage of publications among the world's top 10% most cited research publications	17.1%	20%	17-20%	
Volume of external research funding in million euros	12.8	27.5	17.8	
Volume of business contracts in million euros	6.83	6.1	8	
Number of new spin-offs of the university per year	3	4	5	
Organisation				
Income per academic employee in euros	124,158	151,399	150,000	
Percentage of units the staff of which are satisfied with their job	66%	60%	70%	
Income from teaching per student in euros	5,662	7,027	6,500	

## OPERATING ENVIRONMENT

According to the World Economic Forum's **Global Risks Report 2023**, the world faces familiar risks: inflation, trade wars, civil unrest, geopolitical confrontations and the threat of nuclear war. These are compounded by newer changes: unsustainable debt, the onset of the era of slow economic growth, deglobalisation, slowing growth in human development indicators, the rapid and unrestrained development of dual-use technologies, the impact of climate change and the ever shorter time to adapt to climate change.

Around the world, higher education was affected by a number of **important trends**: increased competition for talent, an emphasis on the importance of practical skills and lifelong learning, growth of online higher education, rising education costs and slowing economic growth. Rapidly evolving technologies are transforming learning and teaching, with the European Union's Joint Research Centre (JRC) highlighting data mining and artificial intelligence applications as a particular area of educational innovation. In its report, the JRC stresses the need to ensure the protection of personal data and not to let the commercial interests of individual companies dominate the use of data and IT infrastructure.

**Sustainable development** is one of the founding principles of the Treaty on European Union (EU) and a key objective of the EU's internal and external policies. Europe's transition to sustainability is based on a three-part pledge: a healthy planet and a viable environment; economic growth decoupled from resource use and environmental degradation; and a commitment that no region will be left behind (including support for a just transition).

At the heart of the European Commission's 2023 Strategic Foresight Report are the main obstacles to Europe's green and digital transition in transforming societies and economies to planetary resilience.

According to the strategic analysis, the major structural trends affecting sustainability are:

- · continued geopolitical uncertainty,
- the contradiction between the goal of zero net emissions from industry and consumption and society's aspirations for economic growth and prosperity,
- the need for rapid and adequate additional investment in green and digital transformation and to build resilience to climate change,
- worsening shortage of labour with the knowledge and skills needed for green and digital transition,
- the breakdown of social cohesion in society,
- threats to the democratic model of governance and existing social arrangements for social protection.

In order to achieve the goal of sustainability, the EU wants to take more account of the interlinkages between social well-being, the environment and the economy in its future policy and economic indicators.

The EU's **economic security strategy** draws attention to increased cyber-attacks and attacks against critical infrastructure, the spread of disinformation and other interference by authoritarian foreign states, to which universities that value academic freedom, openness and cross-border cooperation may be vulnerable and should plan for precautions. For example, the European Commission has put forward proposals to enhance research security.

EU countries agreed on measures to make **research careers** more attractive and sustainable to improve the working conditions and intersectoral mobility of researchers, so that they are less dependent on where they work and on the source of their funding. The aim of updating the European Charter

for Researchers is to develop a comprehensive framework of competences for research careers, including open science and gender equality.

Designing and implementing societal transitions requires new knowledge and skills, which is why the European Commission declared 2023 the **European Year of Skills**. The wider aim of the European Year of Skills was to draw attention to the need for retraining and further training and to develop a positive attitude towards lifelong learning.

According to the World Economic Forum's **Future of Jobs Report 2023**, the number of jobs requiring the application of big data analytics, cloud computing, environmental management (including climate change), encryption and cybersecurity technologies will increase in the near future. When it comes to recruiting staff, the surveyed employers ranked analytical and creative thinking skills as the highest, followed by self-management skills to help cope with changes in the workplace. Problem-solving skills are also expected to become increasingly important in recruiting new staff.

In 2023, the European Commission adopted a strategy for a fourth-generation internet (Web 4.0) to deliver an open, secure and inclusive digital environment that connects digital objects and environments to the real world and enhances human-machine interaction.

The European Parliament agreed on the aim of the draft **artificial intelligence (AI)** regulation: to ensure that AI systems launched on the European market and used in the EU are safe and respect fundamental human rights and EU values. In regulating AI, the principle of risk management is central: the greater the risk, the stricter the legal provisions. It is the world's first legislative proposal on AI, laying the foundations for a global standard for the regulation of AI.

In spring, Estonia held **elections to the Riigikogu** and formed a new government. In the coalition agreement, the governing parties set a target of investing 1% of gross domestic product (GDP) in research and development (R&D) from public funds and supporting businesses to invest at least 2% of GDP in R&D from the private sector. Another target was to increase the activity support for higher education by 15% over the next three years and extend the opportunities to involve private funding to bring higher education financing to 1.5% of GDP.

Already in 2018, a **social pact** was signed to increase public R&D funding to 1% of GDP, and from 2020 onwards, this has been respected in the adoption of the state budget. Approximately €55.3 million have been planned in the 2023 state budget for baseline research funding and research grants. Over the last five years (2019–2023), both baseline funding and research grants have increased by more than a third. However, the share of external support (which financed studies by e.g. ASTRA, RITA, centres of excellence, surveys on COVID-19, etc.) in R&D funding has decreased in recent years and accounted for only a fifth of the 2023 budget, with nearly €44 million.

In 2023, use of the funding from the previous EU budget period came to an end. In its audit, the National Audit Office of Estonia drew attention to the slow pace of the use of support funding. Commenting on the audit, the ministries cited exceptional circumstances: the COVID-19 and energy crises, the impact of the war in Ukraine, rapid inflation and a change of government as reasons for the slowdown. Fragmentation of funds across a wide range of activities, delays in agreeing the terms of the measures internally and delays in national reforms also slowed the pace of grant absorption. The audit report also highlights weaknesses in public procurement rules and their implementation. According to the Ministry of Finance, there are also problems with the implementation of external support for the new period of 2021–2027, which has already started.

The Government of the Republic of Estonia approved the objectives and principles that will guide Estonia's policymaking and the defence of its interests in the EU in 2023–2025. At the heart of **Estonia's priorities with the EU** are foreign, security and defence policy, enhancing crisis resilience, effective border and migration policy, sustainable development and competitiveness, including green and digital transformation and energy security. The need to create equal opportunities for data sharing across the EU and to develop fair rules for the free flow of data and its potential for data-driven business models and public services are also highlighted as priorities. The use of artificial intelligence and data in teaching and learning, based on ethical guidelines, must be promoted.

In 2023, Estonia was ranked 12th among the EU Member States in the **European Innovation Scoreboard** among Moderate Innovators. Estonia was ranked 16th out of 132 countries in the **Global Innovation Index**, a ranking compiled by the United Nations World Intellectual Property Organization. Estonia's strengths included e-governance, a high share of ICT imports in total trade and the value of venture capital and unicorns as a share of GDP. In terms of revenue from intellectual property transactions, however, Estonia ranks 87th among the countries listed. A survey by the Estonian Patent Office also confirmed that Estonian businesses are innovative (49% of respondents come up with a new product or service at least once a year), but only 24% of respondents protect the intellectual property associated with their product or service.

An analysis by the Estonian Research Council showed that between 2012 and 2022, the number of **researchers with doctoral degrees** in evaluated research institutions in Estonia increased by 33% (the growth calculations include researchers who were already working in these institutions before obtaining their PhD). The share of female researchers in all fields of research increased over the period, and in 2022, female researchers accounted on average for 46% of the PhD staff in R&D institutions. On the other hand, the share of very young PhD researchers in the evaluated institutions decreased.

While 90% of all researchers with a PhD from institutions evaluated in 2012 published at least one **research publication** between 2010 and 2012, the figure had fallen to 79% in 2022. Researchers active in several fields of research, who accounted for nearly 13% of the Estonian research community in 2022, participated in more projects on average and published more compared to researchers whose work mainly belongs to one field of research. Between 2012 and 2022, the share of researchers without project involvement increased from 17% to 34%.

A survey on **research ethics** commissioned by the Estonian Research Council showed that 89% of the respondents consider research ethics and good research practice to be important or very important. Data fabrication, falsification and plagiarism were considered the most serious cases of misconduct. Based on self-assessment, the level of misconduct in Estonia is comparable to that found in international studies. Among the cases of misconduct surveyed, the least problematic were the deliberate splitting of research between several publications and the inappropriate use of research funding. The availability and accessibility of guides on scientific ethics was generally considered to be good, although at the same time there was a perception of a lack of knowledge.

Estonian employers are expecting a greater supply of higher-skilled labour. The lower supply of medium-skilled

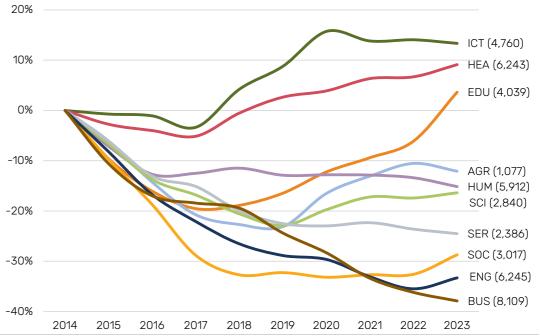
jobs could lead to mismatches in occupations that still require mainly intermediate skills. The result can be both under-qualification, i.e. the use of lower-skilled employees, and over-qualification, i.e. the use of high-skilled employees in medium-skilled occupations.

Work has stalled on the amendment of **the Adult Education**Act and the preparation of the new Organisation of Research
and Development, and Innovation Act. Universities Estonia
remained of the opinion that at least four aspects of the draft
act sent in 2023 to the Riigikogu need to be significantly
improved: the classification of R&D institutions, the funding
instruments and principles applicable to each of them, the
evaluation of R&D and the national organisation of research
ethics.

A roadmap of the Estonian Research and Development, Innovation and Entrepreneurship (RDIE) focus area "Viable Estonian society, language and cultural space" was completed, which centres on surveys on language learning, multilingualism and language acquisition to support the transition to Estonian-language education. It is also necessary to study the modern Estonian language and different language varieties, such as dialects, Internet slang and youth language. Linguistic technologies are prioritised and the widespread use of linguistic solutions such as machine translation and speech recognition will be promoted. In the field of culture, there is a continuing need for research on holistic conceptions of Estonian culture, the creation, development and use of cultural heritage, as well as the work of memory institutions. The roadmaps are not funding decisions but are used by the Ministry of Education and Research and the Ministry of Economic Affairs and Communications to design support measures.

Funding agreements made with the Ministry of Education and Research enabled the University of Tartu and Tallinn University to admit over 400 more students in **teacher education**, special education and school psychology in 2023. An additional €8 million was allocated to universities for this purpose. The aim of increasing the number of student places and strengthening teacher education is to support the transition to Estonian–language education starting in 2024. In addition, the state will allocate a total of nearly half a million euros to the University of Tartu and Tallinn University so that they can provide additional support to teacher education students in improving their Estonian language skills.

In 2023, there were 44,628 **higher education students** in Estonia, 84% of them in tuition-waiver student places. In most fields of education, the number of students has decreased over the past decade. Exceptions include ICT, health, wellness and education, where more students were enrolled than ten years ago.



Change in the number of students by field of education in Estonian higher education institutions in 2014–2023. Behind the abbreviation of the field of education in brackets is the number of students in 2023.

Source: EHIS (Estonian Education Information System)

According to the Eurostudent 2023 survey, more attention needs to be paid to the **financial situation of students**, particularly to financially more vulnerable groups such as students with special needs, Russian-language secondary education graduates, students under the age of 19 and first-generation students. The survey found that working students have a very heavy workload, with an average of 59 hours per week of study and paid work. For students, working is partly a means of self-fulfilment, but for a large number of students, and especially for those who have a heavy workload, it is also a necessity to be able to study in higher education. The largest share of living costs accounts for food. Compared to 2019, food costs have increased by 15%, accommodation costs by 6%, loan repayments by more than double and childcare costs by almost five times (nearly 20% of students are parents).

According to a survey, the proportion of students with perceived **mental health problems** has increased nearly five-fold in the last six years. Almost 70% of all students are aware of academic and psychological counselling services for students, but the vast majority have not (yet) used these services.

In 2023, there were 4,873 **international students** from 124 countries studying at Estonian higher education institutions, accounting for 11% of the Estonian student population. The number of international students admitted to Estonian higher education institutions decreased by nearly 20% compared to the previous year. The last time the number of international students admitted was this low was ten years ago. The largest decreases were recorded for students from Russia (-68%), Latvia (-35%) and Azerbaijan (-34%), and increases for students from Ukraine (+222%) and Turkey (+5%). In 2023, 1,313 international students completed their studies in Estonia, accounting for 15% of all graduates, similarly to the year before.

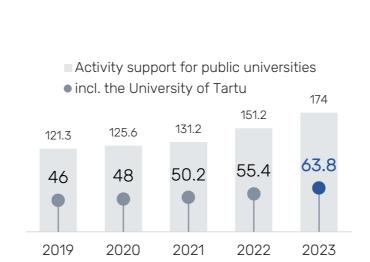
According to Statistics Estonia, international students and international alumni working here during their post-graduation year raised more than €23.5 million in tax revenue for the state in 2023, with 49% working as managers or top professionals. Most of them worked in ICT companies, followed by finance and insurance firms and manufacturing enterprises. The majority of the international alumni remained to work in companies in Harju County. International students are increasingly working in educational institutions, particularly universities. Employment in the service sector has declined year on year. An analysis of the international alumni who graduated between 2018 and 2022 showed that the more time elapses from graduation, the smaller the share of international alumni among graduates living and working here.

## TEACHING AND STUDIES

## Financing

The Ministry of Education and Research (MoER) uses a higher education funding model in which money for supporting higher education is divided into activity support and targeted grants. In 2023, the MoER allocated €231.8 million to Estonian higher education institutions based on administrative agreements. This included €201.9 million to public universities, incl. €78.7 million to the University of Tartu.

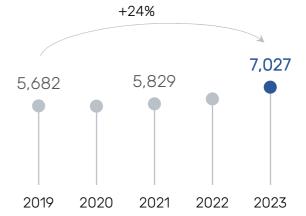
Of the total funding, **activity support** to Estonian public universities was €174 million, of which the University of Tartu received €63.8 million (37%). The amount of activity support allocated to public universities increased by 15% compared to 2022.



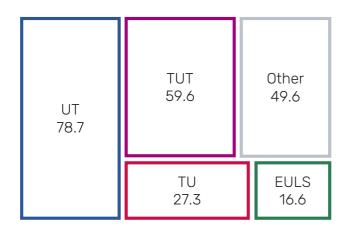
Activity support for Estonian public universities, incl. the University of Tartu, in 2019–2023 in million euros. Source: MoER



In March, the Student Union distributed to students the money won with the contribution to society award to draw public attention to the underfunding of higher education



Income from teaching per student in 2019–2023 in euros (excl. income for medical residency)



Total support allocated to higher education institutions in 2023 (activity support, doctoral allowance, activity support for the library, and other targeted grants) in million euros.

Source: MoER

## Degree studies

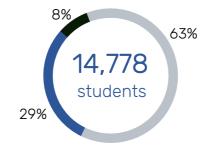
In 2023, there were 14,778 **students** at the University of Tartu, 88% in non-student-funded places. Over the last five years, the number of students has gradually grown. The largest percentage of students, 44%, study at the Faculty of Social Sciences.

New students were admitted to study in 133 curricula and 8 doctoral programmes. 4,684 students started their studies – 7% more than in 2022. The number of admitted students grew by 10% at the first level of higher education (professional higher education, bachelor's studies and integrated studies), 2% at the second level (master's studies), and 9% at the third level (doctoral studies).

In 2023, 8,376 pupils completed **general secondary education** in Estonia. 4,235 of them (51%) continued studies at a higher education institution in Estonia. 1,566 pupils, or 37% of those who had just left school and applied for a higher education institution, chose the University of Tartu.

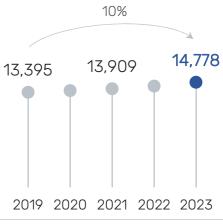
The university organises **Open Doors Days** and other information events to support applicants in making informed career choices. Those interested can become a **student shadow** at almost any time of the year to familiarise themselves with the specialisation of interest, attend lectures and seminars and get feedback directly from students of the specialisation. 824 young people participated in student shadowing in 2023. In June, 700 people registered to participate in the online **admission information day**.

The focus of the 2023 admissions was the new generation of **teachers and support specialists for schools**. In the funding agreement with the MoER, the university committed to increasing the number of admissions to Estonian-language curricula in the field of education by 48% compared to 2021. Additional places were opened in all curricula in the field

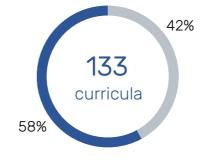


- First level (9,327)
- Master's studies (4,317)
- Doctoral studies (1,134)

Number and percentage of students by study level in 2023

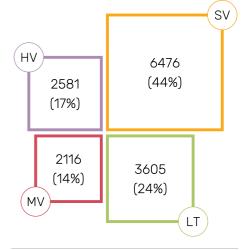


Number of students in 2019–2023



- First level (56)
- Master's studies (77)

Number of curricula (incl. joint curricula) to which new students were admitted in 2023



Number of students by four faculties in 2023



Open Doors Day on 1 March

of education, except in the master's curriculum Special Education and Speech Therapy. Also, a block-mode master's study group for school psychologists was opened.

To promote and also draw media attention to teacher education, the university organised a bus tour in April called "Estonia is seeking teachers", which involved meetings with over 1,000 young people in ten schools. Teacher education curricula were also promoted with articles of role-model teachers. From 2023/24, a national stipend of 400 euros is paid to about 60% of learners in teacher education and support specialist programmes.

The funding agreement set 766 student places as a goal, and 761 of them were filled. There was a sufficient number of excellent applicants in most curricula; the intake for only four master's curricula was lower than planned.

Number of student places and admitted students in teacher and support specialist education in 2023/24

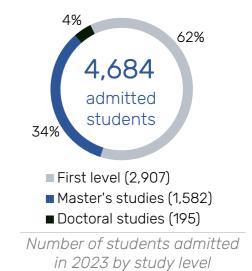
	Number of student places	Number of admitted students as at the beginning of the academic year
Preschool teachers	159	164
incl. at Narva College	69	74
General and vocational education teachers	507	491
incl. at Narva College	110	111
Special education teachers and speech therapists (bachelor's)	75	77
School psychologists (master's curriculum Psychology at Pärnu College)	25	29
Total	766	761

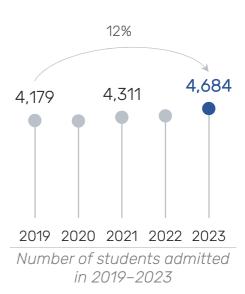
Admissions to education curricula in 2023 accounted for 17% of all curricula of the first and second level of study. The number of applications increased by 39% and the number of entrants by 27% compared to the previous year.

The university's objective is to increase the number of teacher education graduates to at least 350 by 2025. In 2023, 320 students graduated from teacher-education curricula.

In 2023, the UT had 1,614 **international students**, accounting for 11% of the total number of students. 50% of them were master's students and 27% doctoral students. International students came from a total of 104 countries.

Compared to 2022, the number of international students decreased in Estonia by 11%, and the indicator for the UT was the same. Admission of international students decreased by 30%. This is partly due to Russia's aggression in Ukraine: the proximity of Russia raises insecurity, the admission of students from Russia is restricted, and Estonia's visa policy has become stricter. Another factor





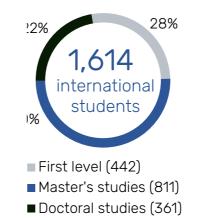
is that the Ministry of Foreign Affairs' development cooperation programme no longer grants scholarships for first and second-level students, while the cost of living in Estonia has risen.

To better examine the preparation of international students, entrance tests for first-level English-taught studies have been introduced.

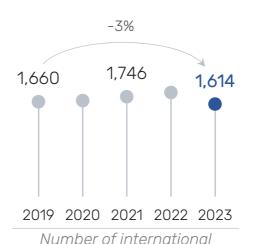
In recent years, the proportion of Estonian citizens among those enrolled in doctoral studies has increased: two-thirds of the 2023 intake were from Estonia and one-third from abroad. 22% of admitted international doctoral students had completed their master's studies at the University of Tartu.

From the 2023/24 academic year, international students starting their studies in foreign-language-taught curricula must complete 6 ECTS credits worth of Estonian language courses. In 2023, the number of language courses was increased, with new communication and conversation courses and an academic writing course added for international students and students who speak Estonian as a second language. In total, more than 200 international students and about 100 students speaking Estonian as a second language participated in the new or updated courses. Intensive summer courses and a language camp in the autumn were organised for international doctoral students, with nearly 50 participants. In the autumn, new students who speak Estonian as a second language were offered, in addition to the compulsory language test, an opportunity to voluntarily test their Estonian language skills, to be able to, if necessary, improve them in a language course right at the beginning of their studies.

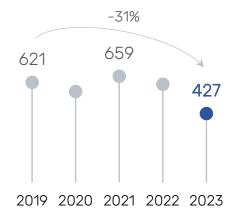
In the autumn semester, a language advisor also started work in Tartu and Narva to help students with a mother tongue other than Estonian needing advice in writing academic texts in Estonian. Language counselling was provided to 35 students in a total of 77 times.



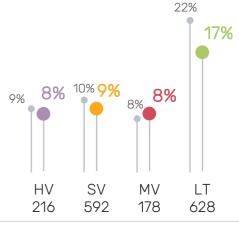
Number of international students by study level in 2023



students in 2019-2023



Number of international students admitted in 2019-2023 (incl. to joint curricula)



Number and percentage of international students by faculties in 2023. For comparison, the percentage of international





Percentage of international doctoral students admitted to doctoral studies, incl. in the Faculty of Science and Technology and in the field of ICT, in 2019-2023



The university has set the goal that at least 18% of its graduates should have international mobility experience. Among the graduates of 2023, 11% had mobility experience.

Compared to the previous academic year, the number grew by 36%. 747 students went abroad as exchange students, a third of them for traineeship. 454 students, i.e. 61% of all students who studied and trained in foreign universities, used the EU Erasmus+ higher education programme.

## 747 UT students studied abroad in 2022/23 Finland 151 Germany 82 Czechia 55 Italy 47 Sweden 43 Spain 36 Belgium 34 France 33 Other 266

The number of international visiting students was 573 – 5% fewer than the year before. Under the Erasmus+ programme, a total of 446 exchange students studied at the university.

The current Erasmus+ period focuses on the inclusion of students with fewer opportunities, sustainable study mobility and the use of digital workflows and learning methods. Additional grants and the short-term blended intensive programmes developed with partner universities have helped widen the range of participants.

## Development of future skills

In cooperation with centres for doctoral studies, the **doctoral student's self-analysis tools** were developed to support their professional development and career planning skills. The self-analysis is based on two European transferable skills frameworks for early-career researchers (including the

ResearchComp competences framework) and the learning outcomes of doctoral programmes, allowing for well-considered planning of studies and reflection on career choices both at university and beyond. In 2023, career counsellors organised **career planning seminars** for first-year doctoral students for the first time as part of their introductory courses.

The university agreed with the MoER to focus, in both curriculum development and teaching, on developing future skills, including digital competence and entrepreneurship, and student feedback.

In 2023, the university's **future skills framework** was launched, with nine skills selected: self-management, communication and collaboration skills, problem-solving skills, creativity, critical thinking, digital skills, entrepreneurship and sustainable mindset. The framework was developed primarily keeping in mind the students and their need to self-analyse, identify the skills they would need in the future, and seek appropriate opportunities for personal development.

Based on the framework, the university's capacity to offer future skills courses is assessed and promoted. In spring 2023, a competition was organised to work out courses suitable for developing the future skills of students of various disciplines. Seven proposals were selected from the proposals received. The competition focused on creativity, sustainable mindset, critical thinking and digital skills.

The completion of **general skills courses** (entrepreneurship courses, study skills, career planning) is one of the six performance indicators for university curricula. In 2023, students' choices in acquiring entrepreneurship skills were analysed. Over the last five years, a total of 108 entrepreneurship courses have been taught in the university's four faculties, 65% of them in the Faculty of Social Sciences. The highest percentage of students participating in entrepreneurship courses is in professional higher education studies (nearly 35%). In the bachelor's and master's studies, the percentage of participants in entrepreneurship courses has slightly increased over the years, reaching 11%.

## Feedback

The university's curricula evaluation system is based on the statistics and feedback on curricula and courses. In the internal evaluation report, programme directors analyse successful developments and the need for change, and this information is shared with the councils of academic units and faculties. The internal evaluation aims to highlight successes, learn from good practice and work together to find solutions to problems.

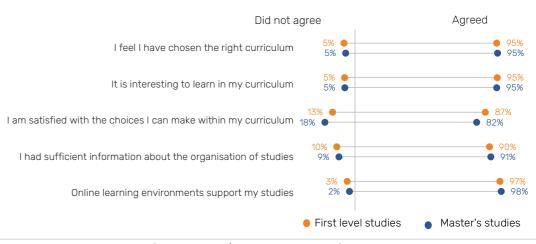
Responding to a curriculum feedback guestionnaire allows students to analyse their learning experience. The questions concern the coherence and structure of the curriculum, organisation of studies and the learning environment, development of students' skills and the work of support systems. In 2023, 55% of the respondents gave feedback on their curriculum; all in all, 2,872 questionnaires were completed. The share of students who have had the opportunity to study together with fellow students outside lectures and seminars has increased compared to previous years, probably due to the impact of the coronavirus pandemic.

Every semester, all students must give feedback to at least four **courses**. In the 2022/23 academic year, students completed and returned 83,078 questionnaires. In total, feedback was given to 4,139 courses. The feedback is analysed annually by the programme directors as part of the internal evaluation of the curriculum.

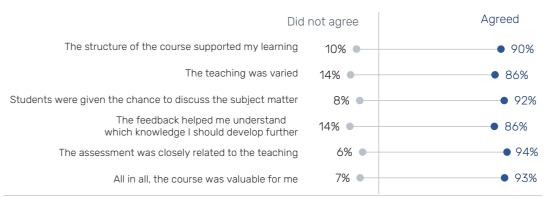


The university aims to achieve high student satisfaction in 95% of courses. In 2023, it was so in 89% of the courses.

In 2022–2023, a national alumni survey was carried out as part of the Eurograduate project. A total of 1,485 UT graduates of the first and second levels of study in 2019-2021 responded to the survey (18% response rate). 93% of them are generally satisfied with their higher education, 92% are satisfied with their choice of curriculum and specialisation, and 84% feel competitive in the labour market.



Results of the 2022/23 curriculum feedback survey (percentage of agreement and disagreement with the statement)



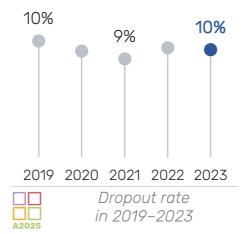
Results of the 2022/23 course feedback survey (percentage of agreement and disagreement with the statement)

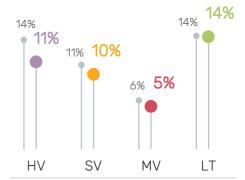
## Progress

1,517 students **interrupted** their studies in 2023. The dropout rate was 11% at the first level of higher education, 11% in master's and 9% in doctoral studies. However, part of these students continued their studies at the UT within a year. Considering the numbers in two consecutive years, 2022 and 2023, the dropout rate was 9.6% (A2025 target 9% or less). The proportion of dropouts was the highest in the Faculty of Science and Technology, but the faculty also had the largest percentage of those who continued studies in another UT curriculum within a year.

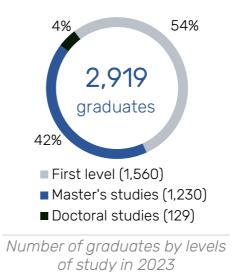


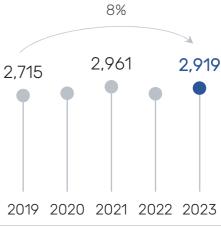
In 2023, 237 people in Estonia **defended their doctoral thesis**, incl. 129 at the UT (8% more than in 2022). 36% of doctoral graduates get to defending their thesis within six years (A2025 target is 50%). The doctoral graduation rate has not improved to the desired extent, as there are still doctoral students who have not been able to dedicate themselves exclusively to doctoral studies like the doctoral students in the post of junior research fellows admitted after the 2022 doctoral reform.



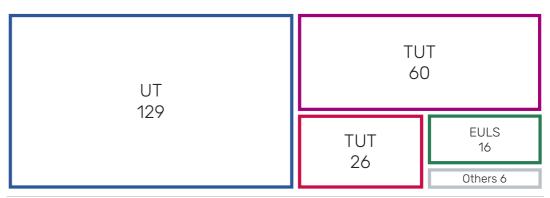


Dropout rate by faculties in 2023. For comparison, dropout rate in 2019 is shown in grey





Number of graduates in 2019–2023



Number of doctoral graduates in Estonian universities in 2023. Source: EHIS

## Support to students

The Counselling Centre offers students of all study levels advice on the organisation of studies, career counselling and psychological counselling, and short courses, supports students with special needs in their studies, organises the training of peer tutors and shares study-related information.

Number of students who contacted the Counselling Centre in 2023

Advice regarding the organisation of studies	802
Career counselling	541
Psychological counselling	2,255
Counselling for students with special needs	183

The Counselling Centre organised workshops, training courses and support groups for 238 groups of students.

In 2023, students were assisted by 101 **peer tutors**. Peer tutors are student volunteers who have completed special training and support first-year students or international students in their specialisation at the start of their studies.

The Counselling Centre put more emphasis in 2023 on **supporting mental health and well-being** through preventive activities. To inform the university family about the activities and possibilities to get help, the centre cooperated with the Estonian Psychological Students' Association, the Ukraine House and the UT student ambassadors who support international students. Psychology and social work students who got training at the Counselling Centre started supportive conversation groups for students. In 2023, there were seven groups of up to 12 members, incl. one in English, meeting six times during the semester. The Counselling Centre organised five support group meetings during the year: two to deal with learning-related anxiety, and three to support students with ADHD.

Two websites to support **self-management** were launched: a mental health website for all university members and a career portal for students and new entrants. The former provides information and exercises to help oneself and support others, as well as information on events and training to support mental well-being. The career portal brings together topics on studies, traineeships, mobility and work-life planning, as well as future skills.

## Student involvement

In June, a **student appreciation event** was held at the Ahhaa Science Centre to bring together and motivate active students involved in volunteering. The theme of the 2023 appreciation event was mental health; with a workshop and an improvisational show for students.

Supported by the university's development fund, the Student Union launched a three-year initiative **Operation Catalyst** to support student organisations and students' personal development and networking. Among other things, students are offered seminar and meeting rooms. A project fund is used to support the activities of student organisations that contribute to the objectives of the UT strategic plan. In 2023, funding was given to 18 projects.



Student organisations can organise events in the room given to the use of the Student Union at Ülikooli 17. The room called Tiksula was opened in the spring

We provide various continuing education programmes to a range of target groups, incl. modules from degree study curricula as open studies.

## Continuing education



58,722 continuing education learners participated in 1,489 courses in 2023. The university also organised 174 internal training courses attended by 3,435 people. There were four continuing education learners per student.

Compared to 2022, the overall number of continuing education learners increased by 27%. The largest increase was in the number of participants in online training. Although there were 9% fewer online learning programmes compared to 2022, the number of learners increased by 36%, accounting for 60% of all continuing education learners. There were 26 MOOCs, and the number of MOOC learners increased by 32% compared to the previous year. MOOC learners made up a third of all participants in online courses.

Number of continuing education courses and participants in 2023

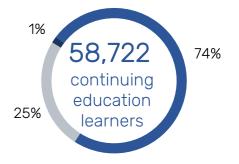
	Number of courses	Number of learners
Continuing education programmes (incl. micro-credential programmes)	1,045	57,876
incl. hybrid or online courses (percentage of all continuing education programmes and participants is shown in brackets)	654 (63%)	43,350 (75%)
incl. M00Cs	26	11,526
Degree study courses	444	846
Continuing education in total	1,489	58,722

Income from continuing education, incl. projects, programmes and targeted financing, was €8.3 million, 14% more than in the previous year.

Continuing education was successfully provided also outside Tartu: the highest participation rates were in the counties of Harju, Pärnu, Viljandi and Ida-Viru, i.e. in regions where the university has a college or an office.

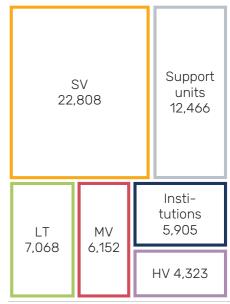
The university provides continuing education to both public- and private-sector institutions. Among others, courses were commissioned by the Health Insurance Fund, AI & Robotics Estonia (AIRE), Viru Keemia Grupp, Estonian Police and Border Guard Board, the Supreme Court of Estonia, Swedbank, several ministries, local authorities, and healthcare and educational institutions.

The continuing education programme for teachers, "United by Space", initiated in 2022 by the Tartu Observatory Visitor Centre, was awarded as the Tartu County education deed of the year in 2023. Over two years, the programme has run 14 courses with 359 participants.



- Online continuing education courses (43,350)
- Face-to-face continuing education courses (14,526)
- Degree study courses (846)

Number of continuing education learners in 2023



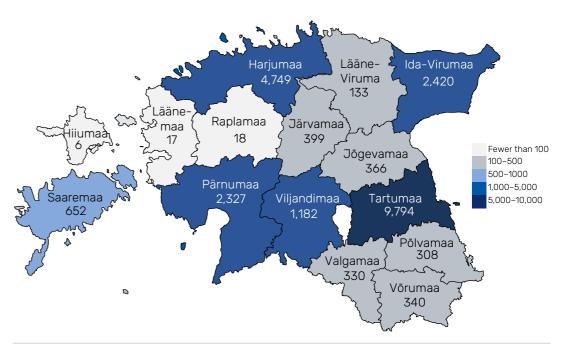
Number of continuing education learners by units who organised the courses in 2023

Commissioned by the Estonian Unemployment Insurance Fund, the UT offered two webinar series to all interested in learning: digital skills and emerging technologies seminars had 1,945 and career development seminars 5,594 participants.

Several programmes and projects funded by the European Social Fund ended in 2023. Within the "Edu and tegu" programme, which is targeted at entrepreneurship and career education teachers and professionals, the university organised 70 training courses with 3,288 participants over eight years. Two MOOCs were worked out to develop students' entrepreneurial and career skills, with nearly 2,000 participants. In the years 2020–2023, the university organised 73 free training courses for working adults under the ESF programme "Promoting adult learning and expanding the range of learning opportunities". 2,566 participants completed the course with a certificate.

The university continued to provide **micro-credential programmes** to enable employed people to obtain another specialisation or competence in a narrow field of activity and, if they wish, continue studies in a degree programme in the future. In spring 2023, 380 learners studied in 41 micro-credential programmes, and in the autumn, nearly 490 learners under 47 programmes.

Micro-credential programmes as longer, comprehensive continuing education programmes designed to meet labour market needs, have been well received. Of the learners who gave feedback, 98% agreed that the micro-credential programme was valuable to them, and nearly 50% were willing to continue in degree studies. The feedback highlighted the professionalism of the teaching staff and the well-organised online learning, which allowed for remote participation and listening to the lectures at a suitable time.



Number of participants in UT continuing education courses by place of study in 2023 by counties (excl. online courses)

The **University of the Third Age** aims to provide older people with better opportunities for lifelong learning and coping in the changing society. In the spring semester of the 2022/23 academic year, 16 programmes of the University of the Third Age continued in 15 places over Estonia: Tartu, Tallinn (in Estonian and Russian), Pärnu, Viljandi, Narva (in Russian), Elva, Keila, Kuressaare, Põltsamaa, Põlva, Saue, Türi, Valga, Viimsi and Võru County. The number of people participating in the programmes was 3,090, which is 44% more than the year before. In the autumn semester of 2023/24, all programmes started again, and 3,329 people enrolled in the main programmes.

In 2023, the University of the Third Age also ran nine webinars with 455 participants. In addition, they offered workshops, study trips and foreign language and digital skills courses.

We stand for a research- and evidence-based world view, value top-level researchers, favour the development of future academic staff and actively use international support to finance research.

## RESEARCH

## Financing

The university's main budget for 2023 included €124.3 million of research revenue. Compared to 2022, research income fell by 2.5%, caused mainly by a decrease in support from EU structural funds due to the slow start of the new budget period. Significantly more money than planned was received from domestic and international grants.

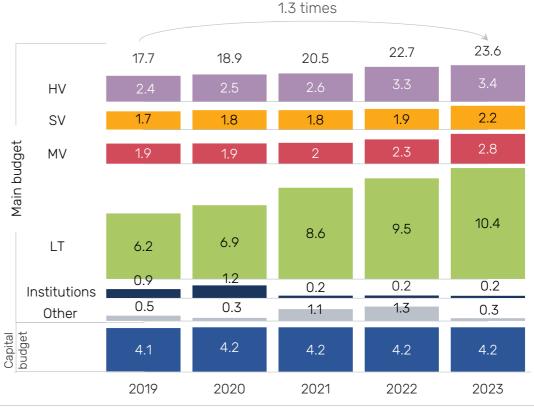
In 2023, the University of Tartu was allocated €23.6 million from the state budget for the **baseline funding** of research. This was approximately 43% of the total amount of baseline funding (€55.3 million) distributed among the 22 positively evaluated research and development institutions in Estonia. The baseline funding allocated to the UT has increased, but its share of the university's research revenue has not in recent years, remaining below 20%. The increase in baseline funding in the state budget is slower than the increase in the number of new positively evaluated private research and development institutions applying for it.

The university council allocated the part of baseline funding designed to support national disciplines (€1.6 million) to the Faculty of Arts and Humanities. 4.2 million euros of the main part of the baseline funding was allocated for investments in academic and research buildings, and the rest was distributed as follows:

- 74% to academic units according to their contribution to earning the university's baseline funding;
- 20% to the UT development fund;
- 6% to the rector for performance-based funding of faculties.

Baseline research funding allocated to R&D institutions for 2019 and 2023, in million euros

R&D institution	2019	2023	Growth
University of Tartu	17.7	23.6	5.9 (1.3 times)
Tallinn University of Technology	9.0	12.3	3.3 (1.4 times)
Tallinn University	2.9	3.8	0.9 (1.3 times)
Estonian University of Life Sciences	2.5	4.3	1.7 (1.7 times)
Other	7.0	11.3	4.3 (1.6 times)
Total	39.1	55.3	16.2 (1.4 times)



Distribution of baseline funding for research in 2019–2023 between the university's main budget and capital budget after distribution of performance-based grants and allocations from the development fund, in million euros

Academic units used their allocations to initiate and co-finance more than one hundred research topics and projects, incl. to support experimental development. Labour costs accounted for nearly 41% (€8.9 million) of the costs made from the financial accounts of baseline funding. This is in line with the objective of the A2025 action plan to direct more funds to strengthen the competitiveness of salaries.

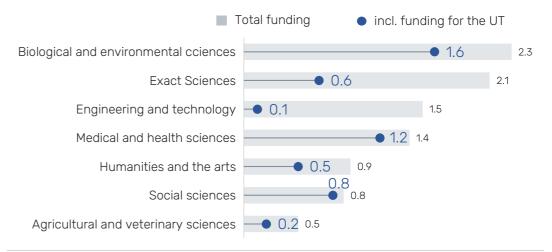
The financial volume and share of **personal research grants** of the Estonian Research Council (postdoctoral, starting and team grants) in the university's research revenue have steadily increased in recent years. In 2023, they were nearly €32 million – 26% of the research revenue. A total of €9.5 million of starting and team grants were allocated for new projects in Estonia in 2023. UT researchers received €4.9 million (52%) of the amount to launch 27 new research projects. Also, 146 existing projects continued and received €26.8 million. In addition, six new postdoctoral projects started in 2023 (€220,750 in total).

The government decided to finance six new UT-led **centres of excellence** in research in the next seven years:

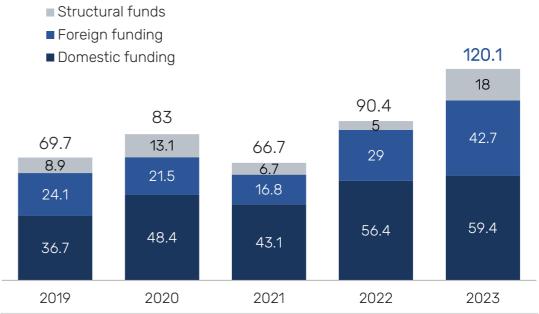
- The Center of Excellence in Sustainable Green Hydrogen and Energy Technologies (led by Professor of Physical Chemistry Enn Lust),
- The Estonian Centre of Excellence in Artificial Intelligence (led by Associate Professor in Machine Learning Meelis Kull),
- Centre of Excellence for Personalised Medicine (led by Professor of Bioinformatics Reedik Mägi),
- Estonian Roots: Centre of Excellence for transdisciplinary studies on ethnogenesis and cultural diversity (led by Professor of Archaeogenomics Kristiina Tambets),
- Estonian Center of Excellence of Well-Being Sciences (led by Professor of Affective Psychology Andero Uusberg),
- Centre of Excellence for Sustainable Land Use (led by Professor of Geoinformatics Evelyn Uuemaa).

The university is also a partner in four new centres of excellence.

We create and actively use the possibilities to apply for international research funding, incl. by participating in the R&D partnership programmes of the EU in strategic research areas.



Funding of starting and team grant projects that started in Estonia in 2023 by field of research, including grants allocated to the University of Tartu, in million euros



The volume (in million euros) of the university's R&D contracts concluded in 2019–2023 (project-based funding, to be supplemented by baseline funding)

In 2023, R&D support measures financed from the **structural funds** were opened, with the Just Transition Fund accounting for the largest share. Activities financed by the fund are described in the chapter "University in regions".

With the support of **international funders**, €42.7 million worth of R&D contracts were signed at the university in 2023. Forty R&D contracts funded by the EU research and innovation funding programme Horizon Europe were concluded for a total amount of €31 million. Since 2021, the university has received funding from the framework programme for 87 projects in the total amount of €49.8 million. In terms of this indicator, the University of Tartu ranks 56th among European universities and 14th among Nordic universities, and the first among the universities of the member states that joined the EU after 2004 (EU 13) and Estonian universities.

In 2023, the **European Research Council (ERC)** decided to fund four grant proposals from UT researchers:

- Professor of Physical Geography and Landscape Ecology Ülo Mander received the ERC Advanced Grant to study the N2O cycle in fens and peatlands, its links to global climate change, and possible land-use practices that could help curb the production of this greenhouse gas;
- Professor of Geoinformatics Evelyn Uuemaa received the ERC Consolidator Grant to develop remote sensing and machine learning-based models that will enable both farmers and policymakers to plan nature-based solutions to mitigate the negative environmental impact of intensive agriculture;
- Associate Professor of Genetics Hedvig Tamman received the ERC Starting Grant for the project focusing on the arms race between bacteria and viruses, in which she also seeks solutions to antibiotic resistance;
- Associate Professor of Behavioural Genetics Uku Vainik was awarded the ERC Starting Grant to study the behavioural and genetic links to obesity and identify possible new interventions to combat obesity.

To encourage and support applicants for high-level ERC grants, the university gave ERC Incentive Grants for the third time: as a result of competition, to 11 researchers.

The university joined a new network of the **European Institute of Innovation and Technology (EIT)** – Cultural and Creative Sectors and Industries, and continued participation in the knowledge and innovation communities of Urban Mobility, Added Value Manufacturing and Health Innovation.

## **Publications**

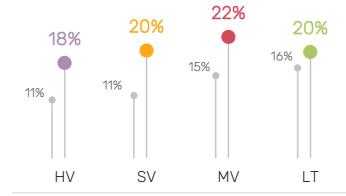
According to the Estonian Research Information System, UT members published 2,803 **research publications** in 2023, incl. 1,528 classified as high-level. Thus, the average number of high-level publications published per academic staff member (FTE) was 1.0.

Over the last five years, the percentage of high-level publications has increased in all UT faculties. As at September 2023, 20% of publications by UT researchers published in the past five years (2018–2022) and indexed in the Web of Science database had reached the top 10% most cited publications in their field (17.7% in 2022, A2025 target 17–20%).

According to the Essential Science Indicators (ESI) database, 81 researchers affiliated with the University of Tartu ranked among the 1% most cited researchers in their field. Four of them – Mohammad Bahram, Elin Org, Leho Tedersoo and Frank Witlox – have been included for their research impact in the "Highly Cited Researchers 2023" report by Clarivate Analytics, which is based on ESI data and lists the world's 6,000 most influential researchers.

## 16% 17% 17% 18% 20% 2019 2020 2021 2022 2023

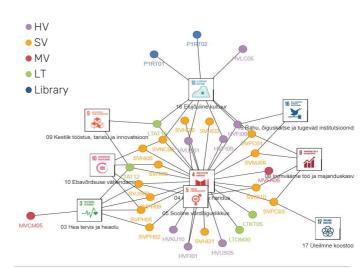
Percentage of publications ranking in the world's top 10% by citations for their field of all UT publications in 2019–2023



Percentage of publications ranking in the world's top 10% by citations for their field of all publications in 2023 For comparison, the percentage in 2019 is shown in grey

## Overview of research directions

A new interactive dashboard gives an overview of the research done at the university. The dashboard makes it easier to contact experts and find funding and collaboration opportunities. By the end of 2023, UT academic staff had described more than 400 research directions, with links to researchers' data in ETIS. The dashboard also shows the research directions' links to UN Sustainable Development Goals.



Example from the research dashboard: research directions with education-related keywords (indicated with dots) and the associated UN Sustainable Development Goals (indicated with squares)

## ENTREPRENEURIAL UNIVERSITY

## Supporting researchers in entrepreneurship

A2025

The total volume of R&D service contracts with the private and public sectors in 2023 was €10.9 million, of which €6.1 million accounted for direct contracts with the private sector.

The total volume of university-enterprise cooperation agreements funded by Enterprise Estonia's applied research programme more than doubled over the year, reaching €3.2 million. In 2022, the volume of university cooperation agreements funded under this programme amounted to €1.45 million, and in 2021, to €169,000.



Four new companies were added to the list of university **spin-offs**. Since 1998, 64 companies have been started from the university. The spin-offs attracted a total of €4.5 million of investment in 2023.

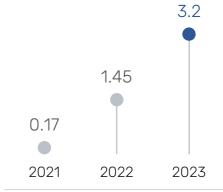
The **experimental development grant** was once again provided from the from the university's development fund, speeding up the delivery of research solutions to the economy and society, and reducing funder risk at the development stage. In 2023, research into the development of a fluoride-free ski wax, the development of software to assess the impact of voluntarily traded carbon credits on biodiversity, and the creation of a tool for pre-processing and analysis of textual data, among others, were supported.

As at the end of the year, the university had protected 31 inventions with 185 **patent applications**, 29 protected **patents** and seven protected trademarks. The 2023 licence fees received by the university amounted to €82,746. The ME-3 bacterium patent continues to be the most successful in terms of licensing revenue.

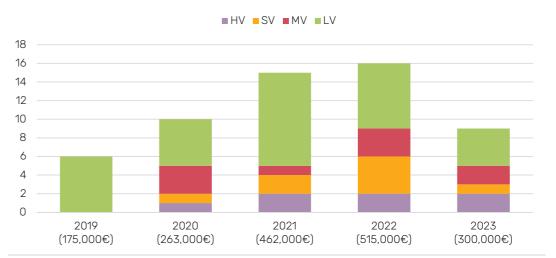


Public sector
 Private sector

The volume of service contracts with the public and private sectors in 2019–2023, in million euros



The total volume of university-enterprise cooperation agreements funded by Enterprise Estonia's applied research programme in 2021–2023, in million euros



Number of projects awarded with the experimental development grant from the development fund by faculty in 2019–2023. The total amount of grants for the respective year is shown in brackets

We actively search for opportunities cooperate with businesses.
We value cooperation projects between academic staff

and businesses.

We favour and develop the enterprising spirit of the members of the university and create an even better development environment for start-up activities and cooperation businesses.

As part of the reorganisation of the Centre for Entrepreneurship and Innovation, the preincubation programme was upgraded and a dedicated work management software was introduced to process contracts with the Grant Office.

UniTartu Ventures OÜ, in cooperation with the Centre for Entrepreneurship and Innovation, has worked out a process to help develop research-intensive ideas from conception to investment-readiness and application of the research results. Gearbox Biosciences, a company developing protein production technology, was added in 2023 to UniTartu Ventures' portfolio, which already included the company UP Catalyst. UniTartu Ventures' experience has also attracted interest from other Estonian universities, and there is a plan to set up a joint university asset management company based on a similar model.

In 2023, preparations were made for the establishment of the **Estonian Multiomics Company (EMC)**, a subsidiary of the university, and negotiations were held with stakeholders both in and outside the university. The EMC aims to harness Estonia's digital healthcare strengths and experience to create a new international hub for healthcare innovation. The EMC brings together technology companies that want to develop innovative healthcare services and products by analysing people's health data, and individuals who want to contribute to healthcare innovation.

## Development of entrepreneurship

In 2023, **entrepreneurship education** was systematically developed. Students also had the opportunity to receive support from international teams and mentors. In the 2022/23 academic year, 1,184 students from all study levels took courses offered by the Chair of Entrepreneurship. Competitive entrepreneurial presentations, where students could pitch their business ideas and listen to feedback from investors, mentors and entrepreneurs, took place at Startup Day, the Delta X competition and the business idea pitch Mõõduvõtt.

Entrepreneurship education also included international cooperation. For example, the Interreg Innovating Social Entrepreneurship Education (iSEE) project held a winter school in January, where 40 students from Estonia, Latvia, Sweden and Finland developed social entrepreneurship ideas. Together with partners from Spain and Germany, the Open Innovation Academy training concept was launched.



Students at the Delta X competition



President Alar Karis visiting Startup Day

A **business preincubation programme** for students was launched to further develop business ideas that have emerged from courses on entrepreneurship. A total of nine teams participated, developing ideas ranging from language learning programmes and digital marketing training to personalised medicine solutions.

In addition, the idea hackathon allowed students to test their business ideas, develop them into business models and create prototypes of products and services. **Startup Lab** organised 14 workshops to develop entrepreneurial skills for around 600 students in upper secondary schools across Estonia.

Through the university's traineeship and placement environment **Futulab**, 15 traineeship projects were implemented, involving 84 students from 22 curricula. One of the projects resulted in creating the virtual event UT CareerRave to support students' career choices, with nearly 2,000 participants.

In the field of entrepreneurship, the Innovation and Creative Entrepreneurship micro-credential programmes continued to be offered and two new ones were launched: the Technology Entrepreneurship and Start-up micro-credential programmes.

The university is actively increasing **knowledge transfer in doctoral studies**. Its main aim is to prepare top professionals and R&D staff to work outside academia and to foster closer cooperation between universities, businesses and the public

CREATIVE MESTRUCTION STONIA

sector, including by stimulating academic staff mobility between institutions and businesses. Twelve cooperation agreements were signed in 2023.

With the support of the Estonian Centre for International Development, a cooperation project was implemented to increase the innovation capacity and entrepreneurial competence of Ukrainian universities. Almost 900 people learned about university-business cooperation.

The University of Tartu is a partner in the international business accelerator programme **Creative Destruction Lab (CDL)**, which aims to create opportunities for research-based companies to successfully internationalise and grow, and to develop entrepreneurship education. In 2023, 17 companies graduated from the programme, including 12 from Estonia, and 22 started the programme, of which five were from Estonia. CDL also offered entrepreneurship courses for students and girls in upper secondary schools. The programme is funded by private investors and the Ministry of Economic Affairs and Communications.

More than 3,200 visitors attended the **sTARTUp day**, the biggest business festival in the Baltics, organised by the University of Tartu and the business community in Tartu. The programme included 150 high-level speakers, there were 300 start-ups present in the demo area and 200 investors explored the local opportunities for start-up business.



## CONTRIBUTION TO SOCIETY

## Estonia's national university

The **professorship of liberal arts**, established for the many-sided intellectual and creative development of the university's members, celebrated its 30th anniversary. Prominent cultural figures who have held the post and the university family marked the anniversary with a public talk, an anniversary exhibition and publication. In the spring semester of 2023, the fashion, theatre and film designer Reet Aus completed her professorship with the course "How to Improve the World by Creation. Trash to Trend". Peeter Jalakas, theatre director, manager and innovator, took over from her with the lecture series "The Art of Perception and the Perception of Art in Sigismund von Krahl's Theory of Reality". Lectures by liberal arts professors are open to all and popular among students.

Professor Annela Anger-Kraavi, Senior Research Associate and Director of the Climate Change Policy Group at the Department of Chemistry, University of Cambridge, and Mart Kuldkepp, Associate Professor of Scandinavian History and Politics and Head of the Department of European and International Social and Political Studies at University College London, were elected **expatriate**Estonian visiting professors for the 2023/24 academic year. During the visiting professorship, Annela Anger-Kraavi will develop students' environmental and climate change economics competency, particularly at the School of Economics and Business Administration and the Johan Skytte Institute of Political Studies. Mart Kuldkepp gives the lecture course "The Birth of Estonia's Independence" in the spring semester. The visiting professorship enabled Kuldkepp to cooperate even more closely with historians at the University of Tartu, including preparing a monograph on the Estonians' experience of war in the 20th century and studying issues related to Estonian national self-determination. His monograph "Nordic Estonia. The Birth of a Nation" was published in Estonian at the beginning of 2024.

On 14 March, **Mother Tongue Day**, Professor of Estonian as Foreign Language
Birute Klaas-Lang and Research Fellow in Language Policy Kerttu Rozenvalde
gave the lecture "How to achieve inclusive language policy at the University
of Tartu?". Tomáš Pavelka, Programme Director of the master's



Cultural figures who have held the post of professor of liberal arts at the University of Tartu over the last 30 years met at the anniversary events of the professorship



The book on the first 100 years of the Estonianlanguage university in Tartu by Erki Tammiksaar (on the left) was published. The author was interviewed at the book presentation by Taavi Pae

In cooperation with the state and local authorities, we increase the extent of studies considering the distinctive character and possibilities of the regions and contribute to the development of innovation and entrepreneurship.

curriculum Wellness and Spa Service Design and Management, spoke about his language studies, Estonians and the Estonian language in his presentation "õäöü vs. žščřďťň".

A project was launched to support and diversify the Estonian language learning opportunities of international staff, international students and students who speak Estonian as a second language, and thus help them better integrate into Estonian society and the University of Tartu.

The seventh annual **terminology day**, "Terminology creation. Past, present and future", organised in cooperation with the Estonian University of Life Sciences, the Estonian Military Academy, and the University of Tartu, focused on the history and development of Estonian specialised and professional language. More than 130 lecturers, terminologists, members of terminology committees, translators, language editors and other terminology enthusiasts participated on-site or online.

In the autumn, the university was involved in organising the first-ever Wikipedia terminology competition aiming to broaden and disseminate Estonian terminology, promote high-quality term creation and speed up the introduction of modern terminology into Wikipedia. Active participation showed that a lot of specialist terms from different fields are still missing from the online encyclopaedia. The largest number of contributions came from students of Tallinn University and the University of Tartu.

## The university in regions

The impact of the university's colleges in Narva, Pärnu and Viljandi reaches far beyond the organisation of studies. From 2021, the MoER has also allocated activity support to colleges for their societal functions.

The development of Ida-Viru County will be influenced in the coming years by nationwide reforms: the transition to Estonian-medium education and a more sustainable economic model. **Narva College** has a significant role in preparing and implementing both. The college admitted almost twice as many students to teacher education curricula as two years ago. The

college organised several continuing education programmes relevant to the reforms, such as a retraining programme for primary school teachers who start teaching in Estonian and training for professionals working with young people with high need of support and at-risk behaviour.

The Just Transition Fund, a consortium of Tallinn University of Technology and the University of Tartu, involves 22 research teams whose research will help develop technology and monitor social transition in Ida-Viru County over the next six years. The consortium's research fields are related to four major thematic areas: transition to renewable energy and distributed energy solutions, digitalisation of industry and use of big data, critical raw materials and their valorisation by chemical processes, and the monitoring of societal transition processes and analysis of management models in the Ida-Viru region. As part of the fund's research action, Narva College will focus on research into big data and machine learning applications and advancing data acquisition and analysis in manufacturing enterprises. With the support of the fund's educational action, the college will develop entrepreneurship and IT curricula, and a new master's programme "Practical Data Science and Machine Learning" is pending. In collaboration with the Virumaa College of Tallinn University of Technology, a joint curriculum for science teachers in the region's schools is prepared and elective courses are offered to state upper secondary schools.

In 2023, the university opened the position of its representative in Ida-Viru County to support entrepreneurs in implementing research-intensive solutions and further strengthen ties with the local community in the face of the major changes in the region. Besides Narva College, other university units are involved in planning the activities.

The college building is a popular community centre; for example, the University of the Third Age lectures and literary club meetings

attract numerous attendees. Narva Jazz Club has been active at the college for ten years. In spring, students organised the first Ida-Viru Student Days.

**Viljandi Culture Academy**, the Estonian Fashion Festival and the Integration Foundation's Estonian Language House in Narva organised the programme "Fashion Revolution 2023" in Ida-Viru County, combining fashion design with the learning of Estonian. Over three months, 40 fashion designers, sewists, designers and cultural managers of the county gained new knowledge about creative entrepreneurship and the opportunity to learn and practise the Estonian vocabulary of the fashion industry and entrepreneurship.

Viljandi Culture Academy, in cooperation with the Estonian Traditional Music Centre, organises a public lecture series "Own Culture" to introduce and develop Estonian cultural thought. The theme in the 2022/23 academic year was "The familiar and the unfamiliar", with nine lectures covering various topics from genetics to the music industry.

The Culture Academy's traditional heritage technology conference was dedicated to sustainable fashion. It aimed to draw attention to today's clothing and fashion industry as one of the biggest CO2 emitters and the need to find sustainable solutions to the accumulation of textile waste.

In June, the first class of the Viljandi County Folk Costume-making School graduated from the Culture Academy. During the two-year course, all interested could make a folk costume of a Viljandi County parish under the guidance of experienced masters.

**Pärnu College** continued to develop the multiversitas together with Pärnu County Development Centre. Based on the employers' interests, an engineering network has now grown out of this cooperation, preparing an updated training cycle for spring 2024 to teach specialisations in local demand. To ensure a more flexible traineeship arrangement and better meet the interests of Pärnu County employers, the services of 20 organisations were developed within the traineeship courses.

The college organised a development programme for private and public sector managers in the county, and a project management masterclass for civil servants and representatives of non-profit organisations and schools. The college also continued to offer elective courses to the county's upper secondary schools. The Design Thinking Lab focused on integrating studies with traineeship host enterprises and developing services for the public and private sectors.



"Fashion Revolution 2023" combined fashion design with learning Estonian



The first graduates of the Viljandi County Folk Costume-making School

### Knowledge sharing

UT **Library** had more than 38,000 readers and 209,552 visits by the end of 2023, up from nearly 35,500 readers and 156,373 visits a year earlier. The number of virtual visits was 3.8 million. The amount of digitised materials increased. A major project for digitising Estonian scientific and educational literature was completed, with 2 million pages of scientific and academic literature digitised, 81% of which came from the university library collections. The digital archive DSpace was upgraded to contain 90,611 items (up 10% year on year). Site visits to DSpace grew by 9% year-on-year to more than 1.5 million.

Besides the traditional Night Library, the Morning Library was organised for the first time, with library doors opening to visitors at six in the morning. Together with other units of the university, a series of events "Order and Chaos" was launched to strengthen links between science and art. The opening event of the series was an art exhibition by Kaljo Põllu, which traced the history of Estonians' ancestry and evolution.

In the 2022/2023 academic year, 2,243 pupils from 243 Estonian and 14 international schools studied in the 52 online courses of the **Youth Academy**. In spring, 514 pupils from 37 schools received certificates for participating in mobile workshops in biology, chemistry, physics and information technology. In autumn, 776 pupils started in workshops. The Uurimislabor programmes attracted 1,969 participants during the year.

The final rounds of olympiads were held in 16 subjects, with 853 pupils participating. Before international olympiads, eight selection competitions and 16 training camps were organised for Estonian pupils, with 339 participants. Estonia was represented by 102 pupils in 22 international olympiads, bringing home two gold, six silver and 26 bronze medals.

To mark the 70th anniversary of the Estonian olympiads, a comprehensive online publication was published, the youth forum "Talents for the Future" and a creative competition was held, to which 185 entries were sent from 23 schools.

The Youth Academy organised open competitions in astronomy, mathematics, computer science, chemistry and physics, in which 1,438 pupils participated. E-quizzes or competitions were organised in 11 subjects, and 54,979 pupils across Estonia took part in them. The mathematics contest Känguru was the most popular, with 22,581 participants. There were also many participants in the history quiz Mammut (3,375) and the quiz "Kissing Tartu" in personal, social and health studies (3,891).

The Youth Academy coordinates the programme "Talents to Tartu", which in 2023 accepted 66 students, offering them a wider range of learning opportunities than usual. 40 students chose the research track, 13 entrepreneurship and 13 the young teacher project.

UT **Museum** had 55,852 visitors in 2023, incl. 11,185 children who participated in educational programmes or activities. The museum includes 230,969 artefacts, most of which can be found in the MulS information system of Estonian museums.

The UT Museum's work was recognised at the Estonian Museum Association's annual awards gala: the project "New Life of Blackboards" won the conservation work award, and Director Mariann Raisma won the Museum Employee of the Year title.

In April, the book "Tales of the Lock-up at the University of Tartu" by the museum's Curator Ken Ird and Kristiina Tiideberg was presented. The Crazy Scientist's research competition "Delicious Taste" came to a festive end at the Student Science Festival. In October, the exhibition "Art or Science" was opened in the university's museum and art museum in cooperation with the Art Museum of Estonia and the Estonian Academy of Arts, displaying the university's research collections and also scientific illustrations from other memory institutions.

The Natural History Museum and Botanical Garden

had 149,526 visits in 2023 and organised 373 educational programmes for 7,296 learners. There were 397,728 users of eBiodiversity, PlutoF and UNITE, the natural science databases developed by the museum. The Botanical Garden celebrated its 220th anniversary, and inspired by that, the Nature Festival was titled "Garden of Life". More than 3,000 people participated in the Nature Festival, part of the European Capital of Culture Tartu 2024 programme. The festival was held all over Estonia, as usual, and for the first time, the nature observation marathon was international: besides Estonia, observations were also made in Latvia and Lithuania. The nature observation marathon had 958 participants, and 7,724 entries were made over 24 hours in the eBiodiversity database.

A laboratory for molecular identification of species started work at the Natural History Museum, laying the foundations for a DNA barcoding centre. The centre plans to provide DNA extraction, species identification and other services to nature research collections in Estonia and to national institutions, research teams, amateurs and businesses.

Estonian Biobank, enabling vital research to understand health and evolutionary processes better. For example, a clinical trial of the university that involved biobank participants identified entirely new gene variants linked to the effects and side effects of drugs. In 2023, it was possible for the first time to link specific gene variants inherited from Neanderthals to a severe course of COVID-19. In addition, the biobank is developing its portal MinuGeenivaramu to gradually start providing gene donors with research-based information on their genetic predisposition and origin. A national personalised medicine project was also finalised, with the completion of IT infrastructure for personalised medicine and the training of more than 500 health professionals in medical genomics.

#### Feedback from society

The recognition of the university in society is reflected in the general feedback from the Estonian population: 86% of respondents to Kantar Emor's university reputation survey spontaneously remembered the University of Tartu as the first among all higher education institutions. The figure was even higher, 97%, for respondents aged 15–24. The reputation of the University of Tartu is considered excellent or very good by 84% of respondents.

In 2023, the national **lifetime achievement award for research** was granted to UT Professor of Medical Biochemistry Mihkel Zilmer. The recipients of national **research awards** were, in medicine: Irja Lutsar, Professor of Medical Microbiology, and Tuuli Metsvaht, Professor of Paediatric Intensive Care and Pharmacotherapy; in geology and biology: Tuul Sepp, Professor in Animal Ecology; in exact sciences: Tomi Sebastian Koivisto, Associate Professor in Theoretical Physics, and Luca Marzola, Research Fellow at the National Institute of Chemical Physics and Biophysics; and in the humanities: Enn Küng, Associate Professor of Estonian History (Early Modern and Modern History).

The recipient of the national **lifetime achievement award for culture** was Priit Pärn, UT Professor of Liberal Arts in 2020/21. The annual **award of the Cultural Endowment** was granted to Professor of Cultural Semiotics Peeter Torop, Professor emeritus Ants Nurmekivi, and laureate of the "Contribution to Estonian National Identity" award 2013 and current member of the award committee, Anu Raud.

President Alar Karis bestowed Estonian state decorations on several UT staff members. The **Order of the White Star, 4th class** was awarded to Professor of Botany Meelis Pärtel; the **Order of the White Star, 5th class** to Jana Ratas, Technician at the Institute of History and Archaeology and leader of the NGO Aitan Kaitsta, and Hanna Kanep, Visiting Research Fellow at the

School of Economics and Business Administration; the **Order** of the White Star, 5th class to Head of the Centre for School Physics Kaido Reivelt; the **Order of the Estonian Red Cross**, **3rd class** to Junior Research Fellow in Infectious Diseases Anne Kallaste and Lecturer in Infectious Diseases Pilleriin Soodla. His Majesty King Carl XVI Gustaf granted Rector Toomas Asser the **Royal Order of the Polar Star Commander First Class** and Professor Raul Eamets the **Royal Order of the Polar Star Commander**.

In March, 45 UT alumni were elected to the **Riigikogu**, several of them are also employees of the university: Margit Sutrop, Irja Lutsar, Siim Kallas and Jaak Valge.

The Estonian Academy of Sciences elected three new members. Pärt Peterson, UT Professor of Molecular Immunology, became a member of the academy in biomedicine. The Estonian Academy of Sciences elected Professor in Environmental Physics Heikki Junninen as academy research professor in **Arctic studies**; Professor of Regional Political Studies Andrey Makarychev as academy research professor in Russian studies and Professor of Estonian as Foreign Language Birute Klaas-Lang as academy research professor of Estonian language and teaching. The Estonian Academy of Sciences awarded the Wilhelm Ostwald Medal to Professor of Physical Chemistry Enn Lust and the Alma Tomingas Medal to Vice Rector for Research, Professor in Community Ecology Mari Moora. The Mihhail Bronštein Award in economics was granted to Anneli Kaasa, Professor of Social and Cultural Studies in Economics.

Professor of Church History Riho Altnurme and Specialist of Aerosol Physics Madis Noppel were elected **honorary doctors of the University of Helsinki**.

The endowment of the L'Oréal-UNESCO For **Women in Science**Baltics programme went to Triin Laisk, Associate Professor
of Genomics and Reproductive Genetics at the Institute

of Genomics, and Kertu Liis Krigul, Junior Research Fellow in Microbiomics at the same institute. Research Fellow in Semiotics Pauline Delahaye won the second prize of the **Young Researcher Award from Jane Goodall Institute** France for her work in zoosemiotics. Professor of German Studies Reet Bender, with long-time colleague Anne Arold and Latvian researchers Ineta Balode and Dzintra Lele-Rozentale, received the **cultural award of the Baltic German Society** for compiling the Baltic German dictionary and their research of the Baltic German language.

All awards of the President of the Republic's Cultural Foundation were granted to UT members. The **Young Scientist award** was given to Research Fellow in Orthopaedics Kaspar Tootsi, who explores innovative solutions for the treatment of orthopaedic diseases, in particular osteoarthritis. The **Young Environment Scientist award** went to Associate Professor in Ecotechnology Kuno Kasak, whose research focus is carbon-cycle processes in restored wetlands. The laureate of the **Young IT Scientist award**, Lecturer in Artificial Intelligence Dmytro Fishman, focuses on training Al models to analyse biomedical imaging data. The **Young Educational Figure award** was granted to the Project Manager for values-based education, Mari-Liis Nummert, and the **Special Physical Sciences award** to the Teacher in Primary Mathematics, Leesi Peedumäe.

At the national Teacher of the Year Gala, the University of Tartu professors emeriti Marju Lauristin and Rein Taagepera received lifetime achievement awards for educators. At the recognition ceremony for educators of the city and county of Tartu, one of the five teachers' lifetime achievement awards was presented to Enno Akkel, long-time coach of the University of Tartu Academic Sports Club. The Association of Estonian Adult Educators Andras gave the special education award in Tartu County to "United by Space", the UT Tartu Observatory and ESERO Estonia's continuing education course for teachers.

The **Annual Award of Estonian Folkloristics**, issued by the Academic Folklore Society and the Endowment for Folk Culture of the Cultural Endowment of Estonia, was given to Anastasiya Astapova, Associate Professor of Folkloristics, for her work in expanding the boundaries of folkloristics in Estonia and globally.

The **Kristjan Raud Prize**, the oldest and most prestigious art prize in Estonia, was granted to Professor emeritus Juhan Maiste for the collection "Eesti mõisad ja lossid. Aadlikultuuri seitse aastasada" (Estonian manors and castles. Seven centuries of noble culture).

Professor of Botany Meelis Pärtel and Associate Professor in Macroecology Tsipe Aavik received the **silver badge of the Ministry of Climate** for nature conservation.

Seven UT staff members were awarded at the national research communication awards competition. The first prize for **science** and technology communication via audio-visual and electronic media went to Tiiu Rööp, Junior Research Fellow in Medical Microbiology, who has edited and hosted over 455 radio programmes promoting science within nine years. The first prize for science and technology communication via printed media was given to the book "Viguriga kaardid -Eesti kujutatuna kaartidel", compiled by Taavi Pae, Associate Professor in Estonian Geography. The authors of the university textbook "Rakubioloogia", University of Tartu Vivarium Manager Sulev Kuuse and Professor of Cell Biology Toivo Maimets, were recognised for developing Estonian scientific terminology. The first prize for **best science and technology communication** was awarded to Tuul Sepp, Professor in Animal Ecology, for her various research communication activities. The first prize for the **best new science and technology communication** initiative went to Praktikal Education, a comprehensive solution for teaching science, co-founded by Kaido Reivelt, Head of the Centre for School Physics. The Estonian Association of Science Journalists recognised Marko Mägi, Research Fellow in Bird Ecology, with Ökul Prize as the friend of science journalism.

In the Book of the Year competition, launched by Rahva Raamat, the winner in the **best-translated reference book** category was "Reisimuljeid vanadest Baltimaadest" by Seppo Zetterberg, honorary doctor of the University of Tartu.

In the **national contest for university students**, one of the first prizes went to doctoral student Tonis Laasfeld for "Integrating Image Analysis and Quantitative Modeling for a Holistic View of GPCR Ligand Binding Dynamics". The national awards were given for the best research papers written by students of the three levels of higher education and in six fields of research, and several special awards. University of Tartu students won 63 of the total 93 awards.

The annual student research award competition of the National Archives of Estonia has been organised since 1996 to find the **best student papers written about archives or based on archival materials**. The first prize for bachelor's theses was granted to University of Tartu student Helena Eglit. A student of the UT Pärnu College, Triin Jõgeva, was recognised with the **"Teenäitaja" award from the NGO Estonian Association of Large Families**.

Statistics Estonia presented the **young statistician's prize** to Artur Tuttar for his master's thesis, in which he studied the use of machine learning models in the insurance sector.

Estonian National Museum gave the **Ilmari Manninen scholarship** to Inger Pürjema, a student of Estonian Native Craft at the UT Viljandi Culture Academy, who studies the dresses of the second half of the 19th century.

**Tallinn City Council's scholarship** was awarded to Elina Maarja Suitso, a doctoral student of Human Geography at the University of Tartu.

UT students were also successful in international competitions. Students of Science and Technology and Bioengineering of the Institute of Technology developed a method to make bees immune to deformed wing virus. The project BeeYeast brought the team the grand prize at the **iGEM** (International Genetically Engineered Machine) competition. Our students are members of the Estonian solar car team **Solaride** who won third place in the Bridgestone World Solar Challenge in Australia at the end of October and received the special prize for the best result in the technical inspection. Fifty UT students have participated in developing the solar car.

At the "Tähelend 2023" appreciation event of young talents, awards were given to Computer Engineering student Emil Eensaar and Physiotherapy student Jürgen Joonas who won medals at high-level **international orienteering competitions**.

Tartu student organisations' collaborative network "Ole rohkem" granted the 2023 **student organisation award** to the University of Tartu Biology Students Association. The network gave the **Student Friend of the Year** title to Rector Toomas Asser and the **Cooperation Partner of the Year** to the Institute of Computer Science.

At the Estonian Enterprise Awards, the UT spin-off Icosagen won the titles of Company of the Year and Innovator of the Year. The Ministry of Defence recognised the University of Tartu with the honorary title Supporter of National Defence. Recognition was also given to the university's academic units: Narva College received the Golden Apple higher education award from Erasmus+ and the European Solidarity Corps for the project "Developing Teachers' Skills to Educate Pre-School Children with and Through Digital Technologies". The initiative "Schools in Motion" of the Move Lab of the Institute of Sports Sciences and Physiotherapy, won the Health-Promoting Schools Award at the International Sport and Culture Association's annual MOVE Congress.



Team Solaride in Australia



Kertu Liis Krigul, Junior Research Fellow in Microbiomics, was a laureate in the "Science in 3 Minutes" competition for her presentation "Antibiotics – a Wolf in Sheep's Clothing?"

### Culture and sport



Tartu Academic Male Choir sang the national anthem to nearly 12,000 spectators and hundreds of thousands of TV viewers at A. Le Coq Arena on 20 June, opening the European Football Championship qualifier between Estonia and Belgium



The academic brass orchestra Popsid went on a concert tour in Poland and Germany



University of Tartu rowers were crowned champions in the men's eight at the European Universities Championship in Poland



University of Tartu Folk Art Ensemble organised a gala concert for folk dance ensembles in Vanemuine Concert Hall



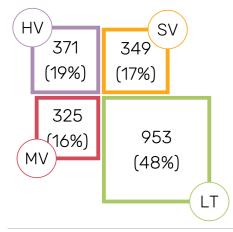
University of Tartu Symphony Orchestra, Academic Women's Choir of the University of Tartu and Tartu Academic Male Choir gave a Christmas concert in Tartu St. Paul's church



Spring Run of the University of Tartu attracted more than 200 participants



- Academic staff (2,001) ■ Support staff (1,539)
- Number of employees (FTE) in 2023



Number of academic staff members (FTE) and their division by faculties in 2023. The figure does not include the academic staff of UT institutions

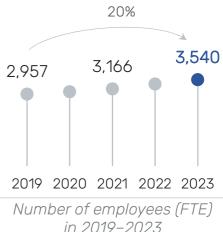
# **ORGANISATION**

## **Employees**

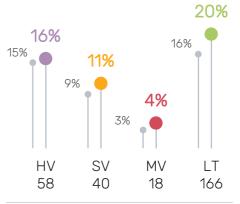
At the end of 2023, a total of 4,367 people worked at the University of Tartu either full-time or part-time. The number of full-time equivalent (FTE) employees was 3,540. There were 2,532 people in academic positions, incl. 258 professors, 82 of whom (32%) were women.

1,545 academic staff members held a PhD (61%). The requirement to hold a PhD or an equivalent qualification applies to professors, associate professors, lecturers and research fellows.

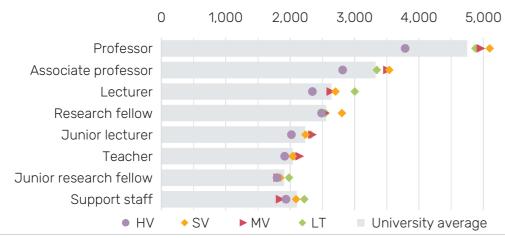
The university's staff included 609 foreign nationals from 76 countries; 508 of them held an academic position. Most of them were junior research fellows (228) or research fellows (122). 44 foreign nationals worked as professors and 60 as associate professors. International FTE employees accounted for 14.5% of the total number of UT academic staff (A2025 target is 15-20%).



in 2019-2023



Number of international academic staff and their percentage by faculties in 2023 (excl. junior research fellows). For comparison, the percentage of international staff in 2019 is shown in grey



Average salary in euros by positions and faculties in 2023

The average gross monthly salary of UT employees was €2,483. It increased by 10.5% over the year: 7.4% for academic staff and 13.3% for support staff. The average salary increase was the biggest for junior lecturers (15.1%), lecturers (13%) and teachers (10.7%). Professors' average salary grew by 9.3%. The lower increase in the average total salary of academic staff results from the growth in the number of junior research fellows. Since 2022/23, most doctoral student places are junior research fellow positions and are supported by the state. In 2023, the number of junior research fellows at the university grew by 180.

In 2023, the **gender pay gap survey** of academic staff was conducted at the university. Its results showed that the pay gap at the university in hourly rates was similar to Statistics Estonia's data for all Estonian employees. On average, the gender gap in hourly wages was 20.3% in Estonia and 19.3% at the UT in 2012–2021. There is no difference between men's and women's salaries in the same position at the university, but fewer women are employed in higher-paid jobs and more in lower-paid jobs. Women are employed in jobs with higher teaching load, but teaching is lower remunerated than research in the UT pay system. An equal number of men and women work in the post of associate professor, which requires a PhD, but predominantly, men progress from there to the post of professor. Women's academic mobility, both in degree studies and later academic careers, is lower than men's, and women's scholarly productivity in research also remains lower than men's.

Without controlling for position, the characteristics of demographics, education and academic productivity can explain most of the gender gap in salaries, narrowing the gender gap to 3.1%. Thus, the gender pay gap mainly results from these differences, and it cannot be concluded that promotion to higher positions is gender discriminatory.

In 2023, a **survey of the language attitudes** of international staff was completed at the university. According to the survey, more than half of the respondents rarely or never use the Estonian language. Also, the motivation among international staff to learn Estonian was low for various reasons.

The university has set a target that at least 45% of international staff should have participated in an Estonian language course in the past five years. In 2023, the indicator was 42%.



The UT supports the Estonian language learning of its **international staff** at language courses, camps and cafés, and in tandem learning. During the year, 160 international employees and their 25 family members learned Estonian. The university organises various adaptation–supporting events for international staff and their families. For example, in 2023, they were offered a guided tour in Karlova, a curator tour at an art exhibition, and a walk in Valgesoo bog. A total of 236 people participated in the seven events.

In 2023, the language learning hub was launched – a website with information about Estonian language courses and opportunities to improve one's proficiency in Estonian at the university. During the year, the website had more than 1,000 users. It shows that many people are interested in learning Estonian, and the website has become a standard tool for finding courses.

The Live Positive Club series held eight meetings with 123 participants during the year. The events are in English and open to all university staff. Each meeting is dedicated to a different topic: for example, thankfulness, belonging, resting, meaningful moments, and coping with negative events have been discussed.

We provide
international staff with
high-quality support services
to ensure that they quickly adapt to the
working and living environment.

We systematically support the self-development of our staff through diverse training programmes.

To develop staff's professional knowledge and skills, the UT offers various training courses supporting the development of teaching and leadership skills, a good working environment, maintaining mental health, and language skills.



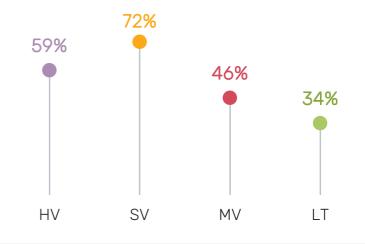
48% of academic staff have actively participated in academic development in the past five years (A2025 target is 50%).

The university supports the development of the **teaching and supervising** skills of academic staff by offering training courses, counselling, collegial feedback communities, the scholarship of teaching and learning, and teaching and learning conferences. All teaching staff members can get support to develop their teaching skills from their faculty's academic developers and instructional designers. In 2023, there were 70 training courses and seminars on the development of teaching skills, with more than 1,600 participants. For a second year now, academic staff members with an employment contract for an unspecified term must undergo teaching skills training of at least 6 ECTS within the first five years of employment.

The university allocated eight **team grants** to teaching staff to systematically develop and research their teaching skills. Together with earlier grant recipients, 100 teaching staff members have now received the grant to research and develop their teaching and share the results with others.

To support **good leadership**, the university offers training and workshops on problem-solving, giving feedback, instructional conversations, leading an inclusive discussion, giving recognition, financial skills and more. In 2023, 21 training courses were organised, with 279 participants. Twenty-two heads of units and team leaders completed the managers' development programme. The programme aims to develop the skills and knowledge good managers most often need in their everyday work at the university, offer support to novice managers and help them build a supportive network. The managers' development programme was launched in 2018, and 82 managers have completed it.

The training programme for peer group counselling leaders continued. Over four years, 53 employees have completed the programme. In the masterclasses held in 2023, peer group counselling leaders could gain new knowledge and exchange experiences. In peer group counselling, participants get support, inspiration and solutions to work-related problem situations from their colleagues.



We

feedback.

create the

opportunity for collegial

Percentage of academic employees who actively participated in academic development activities by faculties in 2023



The annual conference "From Lecturer to Lecturer" was dedicated to the beauty of uncertainty in teaching. In the workshops, participants shared experiences on how to use games and entertainment in teaching, support close reading of texts and apply virtual mobility in teaching. The conference attracted nearly 200 participants

ensure the next generation of executives and support their development into leaders who set an example for other university members.

#### Work environment

Fairness, equality, valuing diversity, respectful attitude and communication, preventing bullying and intervening in problem situations directly impact the way how people feel at work. To promote equal treatment, a website promoting the university's equal treatment policies and providing information on best practices was launched in 2023. An information material, "Equal Treatment at the University of Tartu", and three videos were produced on equal treatment principles, bullying cases and how to deal with them.

In 2023, four "ABC of Equal Treatment" training courses were organised, with 45 participants. Also, the 26-hour training for equal treatment support persons started, with 35 persons. Nineteen people were acting as equal treatment support persons in 2023/24. The Estonian Human Rights Centre highlighted the university's network of equal treatment support persons as an excellent example in its 2023 annual report.

The University of Tartu participates in the working group of The Guild network of European research-intensive universities, where information and experience are exchanged on equal treatment and promoting diversity.

An academic staff **time-use survey** was conducted at the university. Its results show that the varied nature of academic work leads to excessive workload and stress. Also, the interplay of contradicting expectations is problematic: a person is expected to be successful in both teaching and research and, additionally, participate in management. Academic work is flexible in terms of content and working time, which blurs the boundaries between tasks and between working time and rest. The younger generation has a growing disapproval of overworking, as they place more emphasis on time and days off work and holidays. The employees expect an inclusive and supportive organisational culture

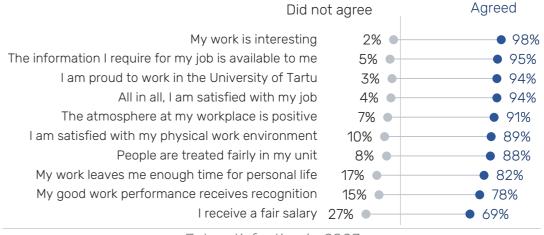
that would also value the employees' well-being and personal time.

The fourth **mental health and well-being conference** was titled "The Power of Word" and had 995 registered participants, incl. 120 from the University of Tartu. The solution-focused online conference discussed how words can do more good than harm, the principles of good conversation, whether words can heal and how words can help us explore our feelings and thoughts. By the end of 2023, the conference had been viewed more than 4,400 times on UTTV.

The results of the university's **job satisfaction survey** in 2023 show that UT is a stable organisation where it is possible to do interesting and high-impact work. The university's strengths include collegial support, good working facilities and a positive working atmosphere, as well as clarity of tasks and good accessibility of job-related information. Overall, 94% of the 1,551 employees who responded to the survey are satisfied with their jobs (34%). Considering the A2025 key indicator for job satisfaction, there is still room for improvement in the overall satisfaction level. The aim is that at least 3/4 of staff in 70% of the units are entirely or generally satisfied with their jobs. In 2023, the indicator was 60%.



Like in previous years, the most problematic issue was salary fairness. Compared to the last survey, the respondents found it more complicated to cope with work stress. The results of the annual survey highlight the strengths of the university's work environment, point out issues that need to be addressed and provide background information to keep each unit on a good development track.



Job satisfaction in 2023 (percentage of agreement and disagreement with the statement)

maintain good mental health.

We support the

We care for our staff; we notice every staff member and recognise the best.

Recognition

The UT annually presents the "Contribution to Estonian National Identity" award to recognise individuals whose creative work has made an outstanding contribution to promoting the national identity of Estonians and Estonia. In 2023, the "Contribution to Estonian National Identity" award was granted to theatre director Merle Karusoo.

The senate appointed **honorary doctors**:

- Professor Rolf Harald Baayen of the University of Tübingen, in Linguistics,
- Professor Li Bennich-Björkman of Uppsala University, in Political Science,
- Professor José Alejandro Madrigal Fernández of University College London, in Medicine,
- Professor Alexei Kornyshev of Imperial College London, in Science.

The **Johan Skytte medal** was awarded to Professor Margit Sutrop, a member of the Riigikogu, who has contributed significantly to the development of the university and promoted higher education in Estonia.

The senate decided to award the **University of Tartu Grand Medal** for services of particular value to Kristjan Vassil, Associate Professor of Technology Research, and Jaak Vilo, Professor of Bioinformatics. The university awarded seven Stars of Appreciation, ten Medals, 61 Badges of Distinction, and 15 decorations "100 Semesters at the University of Tartu".

The University of Tartu **research award** 2023 was for a comprehensive approach to processes that have influenced and continue to influence the Estonian people's cultural, linguistic and genetic development. The award recipients were Associate Professor of Archaeology Mari Tõrv, Professor of Archaeology Valter Lang, Professor of Archaeogenomics Kristiina Tambets, Professor of History and Dialects of Estonian Language Karl Pajusalu, Junior Research Fellow in Archaeology Silvia-Kristiin Kask, and Project Manager Sandra Sammler.

The contribution to society award 2023 was for "Fashion Revolution", a project combining Estonian language learning with sustainable fashion and entrepreneurship studies. The awardees are from Viljandi Culture Academy, Project Manager Lembe Lahtmaa, Junior Lecturer in Materials Studies Diana Tuulik and Juko-Mart Kõlar, Director of Viljandi Culture Academy.

The language award 2023 was for

Estonian-language university textbook "Rakubioloogia" (Cell Biology). The laureates are Vivarium Manager Sulev Kuuse and Professor of Cell Biology Toivo Maimets.

The **best teaching staff of the year awards** were granted to

- Jane Klavan, Associate Professor of English Language, from the Faculty of Arts and Humanities,
- Valter Parve, Teacher of Social Work, from the Faculty of Social Sciences,
- Helen Zirnask, Lecturer in Human Anatomy, from the Faculty of Medicine,
- Edith Viirlaid, Lecturer in Colloidal and Environmental Chemistry, from the Faculty of Science and Technology.

The **teaching quality award** for systematic work over the past three years went to the Institute of Chemistry. Teaching methods were changed, and more active learning methods were used to develop students' future skills. Joint seminars were organised for teaching staff to develop their teaching skills, and the courses' content was changed to make them more compatible. The courses were developed based on student feedback and the online support to studies was reviewed.

The University of Tartu **teaching awards** 2023 were given for

- organising writing retreats for bachelor's and master's students of the Institute of Foreign Languages and Cultures to provide a supportive environment for academic writing and the opportunity to discuss the writing process with other participants. Leaders: Jane Klavan, Antonina Kostina, Djuddah Leijen, Hella Liira, Liina Tammekänd and Ülle Türk;
- opening the school psychology master's studies in Pärnu to alleviate Estonia's shortage of school psychologists. Leaders: Kairi Kreegipuu, Kariina Laas, Triin Liin, Garri Raagmaa, Signe Reppo, Urve Tammann, Marju Tammiste, Kristel Teearu and Ada Urm;
- reform of physical education and sports curricula, and integrating movement education into the curriculum to prevent health problems among children and people. Leaders: Kristjan Kais, Maret Pihu and Priit Kaasik.

We value the profession of teaching staff as teaching researchers.
We appreciate teaching skills, maintain them and create new opportunities to develop them.

### International cooperation

Tensions in international political and economic relations in recent years have also affected academic cooperation and inter-university activities. In a changed security context, the concept of **responsible internationalisation** is increasingly being used and taken up by European universities as a strategy for creating conditions conducive to international cooperation and emphasising the responsibility of those involved to reduce and manage risks. Responsible internationalisation was in the spotlight in the European Commission and European university cooperation networks in 2023. In a joint statement adopted in November, members of The Guild network of European research-intensive universities stressed the need to balance risk management and developing global cooperation.

The university continues to help **Ukraine**. To better coordinate the activities of the university and its partners in supporting Ukraine, the University of Tartu Ukraine Centre was founded in 2023. The centre offers an elective course "Ukraine: A Nation at the Frontier" and organises practical training for Ukrainian public sector professionals in cooperation with other UT units. The centre can conduct policy analyses and provide advice to the Estonian government, EU institutions and international organisations. The centre aims to raise awareness of Ukraine in society to continue the targeted and effective assistance to Ukraine and war refugees. The UT Scholarship Fund for Ukrainian Students, established by the University of Tartu Foundation in 2022, paid out €33,000 in total to 103 students in 2023, supported by donations from companies, individuals and expatriate communities in Canada and the USA.

In January, a delegation of representatives of the Ukrainian Ministry of Education and Science and universities visited the University of Tartu to learn about the teaching and research opportunities here. The meeting with Vice Rector for Academic Affairs Aune Valk focused on assistance to Ukrainian students and cooperation between the University of Tartu and Ukrainian universities. Among other topics, the discussion focused on how to offer a form of study similar to our micro-credential programmes in Ukraine.

The number of cooperation agreements between the university and Ukrainian partners increased. In 2023, 16 new Erasmus+ partnership agreements were signed with Ukrainian universities, mainly for student and staff mobility. Thanks to the flexibility of the Erasmus+ programme, 69 Ukrainians studied at the University of Tartu as international visiting students. In 2023, the European Commission highlighted 15 Erasmus+ and European Solidarity Corps projects in support of Ukraine, including an initiative by the University of Tartu that enabled Ukrainian medical students to continue their studies in Tartu after a year of intensive Estonian language training.

In 2023, Erasmus+ designated the UT as an Erasmus Without Paper Champion for the digitisation of mobility administration processes, which is a recognition, an opportunity to have a say in planning future digital developments and a commitment to share our experience with other European universities. Cooperation with the Erasmus Student Network was reorganised to better promote mobility opportunities by involving members of the network.

The university is actively involved in **international networks**: The Guild, LERU-CE7 and the Coimbra Group have enabled the university to enhance its international visibility and participate in shaping European research and higher education policies. Under the auspices of The Guild, the university had the opportunity during the year to participate in high-level debates on European research and higher education policies, including responsible internationalisation, and make recommendations to the European Commission on how to improve the Erasmus+ and Horizon Europe programmes. The Europaeum network, initiated by the University of Oxford, places particular emphasis on diversifying educational opportunities for doctoral students.

UT continues its strategic partnership with the ten-member **ENLIGHT** network of European universities. During ENLIGHT's first funding period (2020–2023), the volume of student exchanges within the network increased fivefold: in the 2020/21 academic year, 16 UT students studied at ENLIGHT universities, and by 2022/23,

their number had grown to 80. The UT hosted about 50 exchange students from other ENLIGHT universities both in 2021/22 and 2022/23. In addition, 35 UT staff members and students participated in ENLIGHT conferences in Bilbao, Bordeaux, Galway and Uppsala in 2023. Teaching staff from Tartu taught as visiting lecturers at other universities of the network. Bilateral cooperation meetings were held with colleagues at the universities in Galway, Ghent and Uppsala. Top managers of the network universities took part in a training programme, one module of which was held in Tartu. In 2023, it was decided that ENLIGHT will continue to be funded by Erasmus+ for the next four years (until 2027). At the same time, UT researchers' cooperation with other ENLIGHT universities continues within the ENLIGHT Rise project.

During a state visit in May, **King** Carl XVI Gustaf **of Sweden** and **Queen** Silvia visited the university. The university members greeted them in front of the main building and at the statue of Gustav II Adolf. During a ceremony in the assembly hall, the royal couple signed an entry in the book of honour. Rector Toomas Asser and Director of the Nordic Museum Sanne Houby-Nielsen signed a statement of intent aiming to bring the rector's sceptres, robe, and seals of the faculties of theology and philosophy of the Swedish era from Stockholm temporarily to an exhibition in Tartu to mark the university's 400th anniversary. King Carl XVI Gustaf also visited the Delta centre. The royal couple was accompanied by the Swedish business delegation interested in health technologies.

In September, **His All-Holiness Ecumenical Patriarch** Bartholomew visited the university, delivered the public lecture "Environmental awareness and the role of education" in the assembly hall, and talked to the Rector Toomas Asser, teaching staff and students.

The university also hosted visits by the **Minister of Education and Culture of Moldova** Dan Perciun, and the **Minister of Education of Saxony** Christian Piwarz. The **ambassadors** of Austria, Indonesia, Canada, Greece, Malaysia, Mongolia, Norway, France, Finland, Thailand, the Czech Republic, Ukraine, the USA and Vietnam paid their traditional introductory visits to the university.

Representatives of the university participated in the 28th **UN Climate Change Conference (COP28)** in Dubai, UAE, where world leaders and climate experts discussed the strategies for adapting to climate change. UT researchers introduced research on the development of sustainable cities, biodiversity, and climate measures and their ways of application in the Estonian pavilion.



King Carl XVI Gustaf and Queen Silvia of Sweden (at the centre) in the university assembly hall



His All-Holiness Ecumenical Patriarch Bartholomew at the University of Tartu

### Reducing environmental impact

Science and technology are seen as a lifeline in climate change, which helps solve the complex problems that arise. However, also the creation of knowledge has an environmental impact. In November, the university organised the conference "Sustainable Science – What is the Environmental Footprint of Scientific Knowledge Creation?", which looked at the environmental impact of research itself and discussed ways to reduce it.

The independent Green Museum certificate was awarded to the university's museums for greening their activities. The museums also participated in developing an environmental management system considering the specifics of museums, and organised respective training courses. In the library, a sustainability agreement was implemented to make day-to-day operations more sustainable.

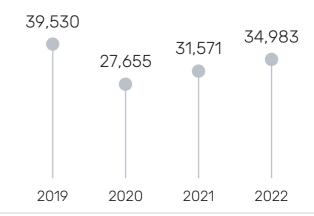
The university continued to make its activities more environmentally friendly. Among other things, the **greenhouse gas (GHG) emissions** from the university's activities for the years 2019–2022 were estimated using the GHG Protocol (an internationally recognised standard for calculating and reporting GHG emissions) and a calculation model developed by the Stockholm Environment Institute Tallinn office, which includes Estonia-specific emission factors.

The university's estimated GHG emissions for 2022 were 34,983 CO2-equivalent tonnes, in which the university's electricity consumption has the most considerable environmental impact, including climate impact, accounting for 44% of the GHG emissions. In terms of emissions, investments in real estate (15% of GHG emissions), consumption of purchased services and products (15% and 8%, respectively), business travel and commuting of university members (6% and 2%, respectively) and district heating of buildings (4%) followed.

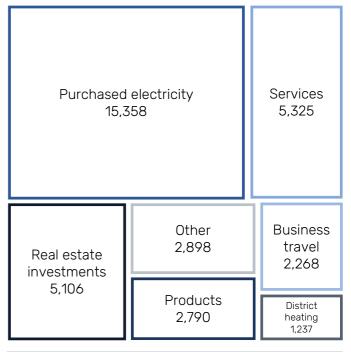
Calculations of the GHG emissions indicated that it is necessary to increase the energy efficiency of buildings and to switch to electricity from renewable energy sources to reduce the environmental, including climate impact of the university.

From 1 July 2022 to 31 December 2023, the university invested €5.7 million in **improving energy efficiency**, of which the smart investment grant from the MoER covered € 5 million.

Solar parks were installed on the university buildings, energy storage systems were bought, heating, cooling and ventilation systems were upgraded, and lighting fixtures were replaced to reduce energy consumption. For example, solar panels were installed on the library and the buildings at Lossi 3 and Lai 38, which more than doubled the university's electricity production capacity. The university's earlier decisions, such as the decision to stop using natural gas, to switch to district heating and join the



Calculated GHG emissions from the university's activities in tonnes of CO2 equivalent from 2019 to 2022. Tonnes of CO2 equivalent express the total emissions of the different GHGs, taking into account separately the ability of each gas to contribute to global warming



GHG emissions from the university's activities in 2022 in tonnes of CO2 equivalent by major fields of activity

We are gradually developing an integrated digital infrastructure where study and research activities are supported by smart and smooth support services.

district cooling system using water from the river Emajõgi, also contribute to lower GHG emissions. As a result of these actions, the university's electricity costs have decreased by 12–14% per month. At the end of 2023, the university decided to start purchasing electricity from renewable sources only.

As daily mobility also has a significant environmental impact, the Mobility Lab and the Research Group of Physical Activity for Health carried out the **mobility survey of the university** members. It aimed to gain insight into the mobility needs and behaviours, expectations, preferences and barriers to mobility of the university members. The survey results showed that 67% of students and 52% of staff predominantly (at least three days a week) use sustainable modes of transport to travel between home and study buildings: walking, cycling or public transport. 14% of students and 31% of employees commute by car at least three days a week to work. The choice of the mode of mobility is influenced by the location of university buildings and the mobility infrastructure. Among car users, 43% of students and 30% of staff drive to Maarjamõisa, 20% of students and 39% of staff to the city centre, 10% of students and 14% of staff to the academic buildings on Vanemuise and Rija streets, 9% of students and 4% of staff to the academic buildings on Näituse street, and 19% of students and 14% of staff to the academic buildings in the Ülejõe district.

Environmentally sound procurement aims to reduce the negative environmental impacts caused by the production, use and disposal of products and the provision of services. The university has applied sustainability criteria in the procurement of furniture, cleaning products and services and office IT equipment. In 2023, ten such procurements were carried out. In addition to the sustainability requirements set by the Minister of the Environment, the university has defined conditions for caterers to minimise environmental damage (e.g. food produced from local raw materials, by a local producer, based on local traditions or with ingredients from producers with sustainability labels).

### Digital development

One of the key trends in digital development in 2023 was the widespread adoption of **artificial intelligence**. The university developed the principles and guidelines for using chatbots in teaching and studies. The university encourages the use of chatbots to support teaching and develop students' learning and working skills. Lecturers can decide whether and how to use the chatbots or restrict their use in the context of their course. In the case of written papers, the use of a chatbot must be appropriately described and referenced. The university is responsible for ensuring that staff and students have safe and equal access to chatbots. To this end, Microsoft's Azure OpenAI artificial intelligence service and the Copilot chatbot were taken into use at the university at the end of the year.

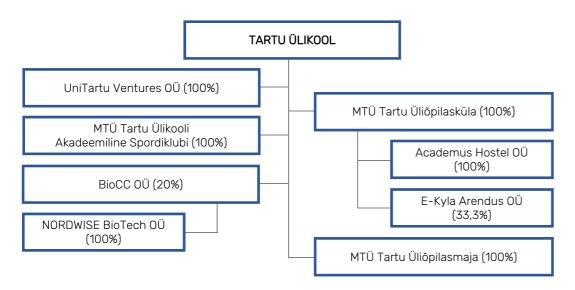
Work continued on developing the SIS2 Study Information
System, and all teaching staff switched to SIS2 from 20 February.
The development of the website, the learner's dashboard and other information systems continued, and the development of the TEEK study path application for doctoral students and residents started.
Preparations for launching the information security management system also continued. The university has the obligation to implement adequate cybersecurity measures and pass the compliance audit by 2025 at the latest.

The five-year action plan for the **development of basic information systems infrastructure** was finalised, focusing on reducing technological debt and eliminating security risks to ensure the sustainability and interoperability of central information systems, mitigate security risks and automate daily tasks. During the year, IT infrastructure was upgraded in 16 university buildings.

The grant application round for the modernisation of the **teaching** and learning infrastructure was held in 2023. Its goal is to upgrade outdated teaching aids, improve the relevance of teaching and learning infrastructure to modern needs, and find opportunities for shared use. All faculties received the grant for modernising their lecture rooms and upgrading specialised teaching equipment.

#### Finances

At the end of 2023, the consolidation group of the University of Tartu consisted of the university and eight other legal entities. The group's operating revenue in the 2023 fiscal year was €277.6 million, growing 11.3% over the year.



The university's financial strategy supports the implementation of the strategic plan through effective budgeting at all levels of the university. The financial strategy aims to ensure the long-term financial sustainability of the university and all faculties, and increase the efficiency of the university's activities in all fields of study and research and the service of society.

# In 2023, the university met the **general goals set in the financial strategy**:

- cash flows from economic activities are positive; result: +22 million euros;
- the university's net assets form at least 75% of the balance;
   result: 75%:
- loan burden does not exceed 25% of the annual revenue; result: 5%.

Key indicators of the field and volume of activity of the legal entities in the consolidation group in 2023 in thousand euros

Legal person	Field of activity	Operating revenue	Net gain	Balance sheet total	Net assets
University of Tartu	Higher education, research	270,903	3,869	361,267	271,285
NORDWISE BioTech OÜ	Research and development, and sales of BioCC products	127	49.	2,857	2,732
Academus Hostel OÜ	Accommodation	0	0	25	25
E-Kyla Arendus OÜ	Software development for student residences	19	1	51	47
BioCC OÜ	Research in natural sciences	1,298	7	1,117	568
MTÜ Tartu Üliõpilasküla/Student Village	Student accommodation	5,086	498	2,414	1,577
UniTartu Ventures OÜ	Intellectual property investment in enterprises	0	61	530	514
MTÜ Tartu Ülikooli Akadeemiline Spordiklubi	Students' sports activities	4,083	215	770	442
MTÜ Tartu Üliõpilasmaja	Students' cultural activities	825	9	351	230
University of Tartu group		277,559	4,532	364,632	273,393

#### Main indicators (consolidated)

	2019	2020	2021	2022	2023
Financial indicators in thousand euros					
Operating revenue	204,793	204,140	233,947	249,323	277,559
Operating expenses	193,421	200,611	224,724	249,128	274,669
Financial revenue and expenses	-135	-83	-1	92	1,642
Annual total net gain	11,207	3,425	9,222	287	4,532
Balance sheet total	323,664	338,201	351,579	352,473	364,632
Current assets	64,596	82,036	95,688	102,716	117,457
Fixed assets	259,068	256,165	255,891	249,757	247,175
Current liabilities	44,156	58,922	66,127	69,784	81,188
Long-term liabilities	23,581	19,927	16,878	13,828	10,051
Net assets	255,927	259,352	268,574	268,861	273,393
Loans from banks	27,662	23,574	19,926	16,878	12,400
Ratios in percentages					
Operating expenses / operating revenue	94	98	96	100	99
Loans / operating revenue	14	12	9	7	4
Current assets / current liabilities	146	139	145	147	145
Fixed assets / balance sheet total	80	76	73	71	68
Loans / balance sheet total	9	7	6	5	3
Net assets / balance sheet total	79	77	76	76	75

#### Major investments in 2023 with total project costs:

- the grant for smart investments allocated by MoER to research and development institutions was used to carry out works improving energy efficiency: solar parks and systems for connection to district cooling were built; energy storage devices, ventilation automation and LED lighting were installed (€5 million);
- the right wing of the main building was renovated (€2 million);
- extension to the Estonian Maritime Institute building at Vana-Sauga 28 in Pärnu was completed (€0.5 million).

## Major investments in 2024 with an estimated cost:

- renovation of the Old Anatomical Theatre for the Information Technology Office, Youth Academy and Institute of Genomics (€3.2 million);
- completing the renovation of the Nooruse 7 student residence (€7.8 million);
- renovation of the Struve building at Uppsala 6 for the Human Resources Office (€2.2 million);
- renovation of the building at Lai 40 for the Museum of Natural History and Botanical Garden (€2 million);
- starting the renovation of the buildings at Ülikooli 18a and Ülikooli 16 (€5.4 and €4.1 million, respectively);
- design of the reconstruction of the building of the Faculty of Law in Tallinn, Kaarli pst 3 (construction in 2025–2026, total cost €9.2 million);
- starting the designing of the new building (incl. a parking building) for four institutes in Maarjavälja (design 2024–2025, construction 2026–2028, total cost €95.2 million).

#### **ACTIVITY REPORT**

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#### Front cover photos:

- At the ceremony of the 104th anniversary of Estonia's national university, the "Contribution to Estonian National Identity" award was presented to director Merle Karusoo
- On 28 November, the book "Eestikeelse Tartu ülikooli esimene aastasada" (The first 100 years of the Estonian-language University of Tartu) by Erki Tammiksaar was presented in the university museum's White Hall
- Mascot Tiksu at the university's Open Doors Day
- Participants of the Startup Lab's Starter programme preparing for pitching
- The University of Tartu and the Estonian Academy of Music and Theatre initiated the joint concert series "Harmonia Universitatis".
   The first concert in the university assembly hall featured the trio Poll-Varema-Poll. The photo shows cellist Henry-David Varema
- On 25 August, the inauguration of Rector Toomas Asser took place in the university assembly hall. President Alar Karis presented the rector's chain of office
- Main building of the university on the eve of the 105th anniversary of the Republic of Estonia
- In January, reading dogs from the Estonian Association of Assistance and Therapy Dogs visited the Night Library in the university library

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