

RTU STRATEGY 2023-2027

Contents

RTU STRATEGY	<i>1</i>
Introduction	3
Analysis of internal and external factors	4
Comparison of Baltic and Scandinavian technical universities	8
Values	
Mission	
Vision	10
Key indicators	10
Goals	
RTU Strategy implementation and control process	14
Abbreviations used in the Strategy	
RTU DEVELOPMENT PROGRAMME	
Introduction	
OBJECTIVES FOR STUDY, RESEARCH AND INNOVATION	19
Goal: Research excellence	
Goal: High quality study process	23
Goal: Sustainable innovation	26
THE OBJECTIVES OF INSTITUTIONAL EXCELLENCE	28
Goal: Institutional excellence - Human resources development	
Goal: Institutional excellence - Digitization	
Goal: Institutional excellence - Effective management of financial and administrative operations	
Goal: Institutional excellence - Sustainable development	
Goal: Institutional excellence - Internationalization	37
Goal: Institutional excellence - Communication and cooperation	39

Introduction

The strategy of Riga Technical University is guided by the proactive linking of the university's activities with the needs of the national economy, orientation towards high quality and efficiency. The basis of RTU activity is science, study process based on innovations and cooperation with industry, which ensures preparation of specialists necessary for the Latvian economy, thus serving as a basis for sustainable development of Latvia.

RTU's strategy for the new planning period is a continuation of the previous university strategy for 2021-2025. It has been developed in line with the objectives and priorities set out in Latvia's development planning documents, including:

- Sustainable Development Strategy of Latvia (Latvia 2030);
- National Development Plan of Latvia 2021-2027 (NDP2027);
- UN Sustainable Development Goals (Agenda 2030);
- Education Development Guidelines 2021-2027;
- Guidelines for Science, Technology Development and Innovation 2021-2027;
- Smart Specialisation Strategy.

The development of the Strategy was based on the identification of development trends and challenges facing higher education and science both globally and in Latvia. Possible RTU development scenarios were developed. Discussions on the development scenarios and the proposals contained therein took place at different levels of the University, involving as wide a range of RTU staff representatives as possible. Strategic management seminars; think-tanks with RTU staff experts in the fields of science, studies and innovation; and staff surveys were organised. The strategy was developed in accordance with the RTU Council's objectives and is approved by the Council's decision, after obtaining the opinion of the RTU Senate.

RTU sets 4 main goals for the next planning period, three of which are related to the implementation of the University's core functions: excellent research, quality studies and sustainable innovation. The fourth, institutional excellence, is about improving the university's support functions and internal governance. Institutional excellence has 6 sub-objectives: digitalisation, sustainable development, efficient financial and administrative management, internationalisation, communication and cooperation, human resources development.

For all the objectives set out in the Strategy, specific tasks and performance indicators have been defined, which will enable the implementation of the Strategy to be monitored and RTU to realise its vision by 2027 - internationally competitive, dynamic and modern science and technology university.

Analysis of internal and external factors

STRENGTHS

- 1. RTU's recognition is guaranteed by its long history RTU has been operating as a higher education institution in Latvia since 1862. As the largest engineering university in Latvia, RTU has accumulated a wide and varied experience in studies and technical sciences.
- 2. RTU claims to be the leading university in Latvia in the fields of energy and electrical engineering, electronics and telecommunications, computer systems and information technology, chemistry and chemical technology, biomechanics and biomaterials technology, material science and materials design, textile and clothing technology, heat, gas and water engineering, building science and geomatics, mechanics, mechatronics and robotics, automotive, rail and air transport, mechanical engineering, architecture and urban planning, digital humanities, linguistics and translation studies, business administration, transport logistics and maritime education. This is also reflected in the predominance of RTU professors in the Latvian Academy of Sciences.
- 3. The quality of RTU studies and research is ensured by experienced, professional and loyal academic staff.
- 4. The quality of RTU's study process is guaranteed by the active involvement of researchers in studies, which is provided by a number of faculty research institutes, centres and groups of professors. The structure of RTU, which includes RTU faculty institutes, fosters career development by providing opportunities for researchers from priority fields to participate in the study process.
- 5. Building on the positive example of universities in other countries, the development of the academic staff roadmap has started with the creation of the tenure-track professor position.
- 6. RTU has the largest number of PhD graduates in engineering, manufacturing and construction in Latvia.
- 7. Well-developed international networking opportunities.
- 8. RTU's cooperation in studies and science is facilitated by numerous cooperation agreements with higher education institutions in Latvia and abroad. RTU has established study programmes in English, adequate services and structures to cater for the growing number of international students.
- 9. RTU renews its study and research infrastructure by actively and successfully participating in European Union research projects and Structural Fund competitions.
- 10. The quality of RTU's activities is confirmed by the results in international rankings: in the international ranking "QS World University Rankings 2023", RTU's score is the highest among Latvian universities; according to "The Times Higher Education World University Rankings 2023", RTU is ranked among the 250 best universities in the world in terms of cooperation with industry.
- 11. The close links with industry, which are ensured in the implementation of RTU study, research and innovation processes, make a significant contribution to the development of the national economy.
- 12. RTU is recognised as the most recommended university by employers in Latvia.
- 13. The RTU Council and the RTU Council of Advisors Convention, which includes representatives of leading Latvian companies, associations and state institutions, ensure that RTU activities meet the needs of the economy.

- 14. RTU has innovation and entrepreneurship support platforms (Knowledge and Innovation Centre, Technology and Knowledge Transfer Centre) to create innovative ideas, high added value products and engineering solutions.
- 15. RTU graduates have one of the highest employment rates among higher education institutions in Latvia.
- 16. Taking into account the economic and demographic situation, RTU invests significant efforts in promoting access to education and jobs, ensuring the work of RTU regional study and science centres in Liepāja, Ventspils, Daugavpils, Cesis, Rezekne.
- 17. Valuable experience has been gained in digitising study processes and providing distance learning.
- 18. A modern campus in Ķīpsala, providing one of the most advanced engineering study centres in the Baltics.
- 19. The autonomy guaranteed by the law is ensured through well-designed governance structures, student self-government organisations and democratic decision-making embedded in the procedures. RTU's status as a derived public entity allows it to choose its own strategy, priorities and budget allocation. Students' interests are represented and actively participate in decision-making in RTU governing bodies (institutes, faculty councils, Senate) and in the Latvian Students' Association.
- 20. RTU Engineering High School, which encourages potential students to take an interest in engineering and study at RTU.
- 21. RTU promotes interdisciplinary excellence in both studies and research.
- 22. The opportunity to participate in various art groups and interest clubs helps to develop a diverse personality.
- 23. RTU's visibility in society is enhanced by a long and strong sporting tradition with high-level teams and athletes. A support mechanism for outstanding athletes.

WEAKNESSES

- 1. Limited financial and human resources to further develop large, international research and infrastructure projects.
- 2. The internal funding distribution model does not sufficiently stimulate cooperation in the development of joint study courses.
- 3. Insufficient development of academic staff selection and election policies, long-term renewal and capacity building strategies. Lack of competition for advertised academic staff posts, leading to a relatively closed academic environment and an age structure of academic staff that is not conducive to staff renewal.
- 4. Insufficient international cooperation of academic staff and little use of mobility opportunities.
- 5. Insufficient number of internationally recognised research studies, low citation rate of publications and low number of international patents.
- 6. Duplication, fragmentation and overlap in study and research. A high proportion of small courses in study programmes.
- 7. Limited opportunities for student internships during their studies. Too few opportunities to materially interest internship supervisors from companies. Low student initiative to find internships in foreign universities and institutions.
- 8. The study process is not adapted to the wide dispersion in the level of preparation of new students, which leads to a high drop-out rate in the first year.

9. Low commercialisation results compared to other competitors in the region (patent sales, licensing, etc.)

OPPORTUNITIES

- 1. European Union strategies call for an increase in the number of people completing tertiary education.
- 2. There is a growing demand for interdisciplinary study programmes and interdisciplinary research, where RTU has been able to show good results.
- 3. Given the demand for tailor-made content for talented students, tailor-made study programmes are possible.
- 4. Consolidation of educational institutions, which envisages the integration of the Latvian Maritime Academy (2022), Liepāja Maritime College (2022), Liepāja University (2024) and Rezekne Academy of Technologies (2025) into RTU, thus implementing the institutional development of the higher education sector, prioritising the improvement of the quality of higher education and the efficiency of resource investments, the development of higher education excellence, and the strengthening of research capacity.
- 5. Changes in government policies and laws (e.g. joint degree programmes are allowed), which can attract more international students.
- 6. Membership of the European University of Technology (EUt+) consortium provides an opportunity to contribute to RTU's international competitiveness by helping to find knowledge that is directly relevant to our region's economic, scientific and political priorities, creating synergies between them.
- 7. Demand for innovation and technology transfer in engineering is growing.
- 8. Opportunity to improve RTU's position in international university rankings by increasing the quality of publications and improving RTU's international image.
- 9. Medium- and long-term labour market projections show an increasing demand for professionals in engineering and IT.
- 10. The start-up movement in Latvia has been very dynamic and has developed rapidly in recent years, allowing knowledge transfer to take place more actively.
- 11. RTU participation in the Baltic Biomaterials Centre of Excellence (BBCE) and the European Organisation for Nuclear Research (CERN) promotes cooperation and knowledge exchange among local and international research organisations and industry, thus enhancing the competence of RTU researchers and, in cooperation with industry, knowledge and technology transfer, facilitating the development of innovative industries and high added value products and services.
- 12. The opportunity to concentrate the study process and dormitories in a single RTU campus in Ķīpsala and its immediate surroundings.
- 13. The growing importance of lifelong learning, based on the need to acquire new knowledge, skills and experience in order to upgrade or change qualifications in line with labour market requirements, provides an opportunity to attract people of different ages and backgrounds to the student population and to strengthen links with all sectors of the economy.
- 14. The integration of the Latvian Maritime Academy and Liepaja Maritime College at RTU will ensure synergy in the development of interdisciplinary study modules and research relevant to the maritime sector, thus increasing the competitiveness of maritime education.

THREATS

- 1. Compared to other countries, a small share of the national budget is allocated to higher education and science, creating unequal opportunities to compete internationally.
- 2. Adverse demographic situation, emigration and brain drain.
- 3. The country has a predominance of small companies with relatively low innovation potential and insufficient resources, which hampers knowledge transfer and prevents the attraction of third-party funds.
- 4. Low income level of the population and per capita gross domestic product (GDP), compared to other EU countries.
- 5. Unstable state and Ministry of Education and Science policies on higher education and science, lack of continuity.
- 6. Low popularity of engineering in society and insufficient awareness of its importance and necessity for the public good.
- 7. Science and maths proficiency levels drop for secondary school graduates.
- 8. Potential difficulties in carrying out state-of-the-art research without improving the professional training of research staff, international competitiveness and investment in research infrastructure.
- 9. Increasing competitiveness of universities in neighbouring countries and EU Member States in the field of engineering education, which contributes to the outflow of students from Latvia.
- 10. Insufficient international visibility of Latvia as a country.
- 11. Increasing competition for project co-funding (EU framework programmes, EU funds).

Comparison of Baltic and Scandinavian technical universities

(2021 statistics)

	Riga Technical University	Vilnius Gediminas Technical University	Tallinn University of Technology	Aalto University
Total number of students	12 165	8 366	9 236	18 831
International students (%)	18%	15%	13%	22%
Total budget (EUR)	85 million	60 million	124 million	377 million
Public funding for studies and research (EUR)	56 million	31 million	64 million	227 million
Total R&D budget (EUR)	34 million	13 million	55 million	251 million
Number of patents (applied for)	23	20	15	54
Number of publications in SCOPUS database	883	646	1 231	3 456
Number of Q1 and Q2 publications in SCOPUS database	242	480	719	2 615
QS 2022	751-800	751-800	751-800	112
THE 2022	1001-1200	1001-1200	601-800	201-250
Doctoral graduates	44	35	63	182
Academic staff (incl. researchers, FTE)*	882	737	838	1 387
International academic staff (%)*	9%	8%	16%	39%
Academic staff with a PhD (%)	67%	75%	61%**	99%***

^{*} information based on data from "QS World University Rankings"

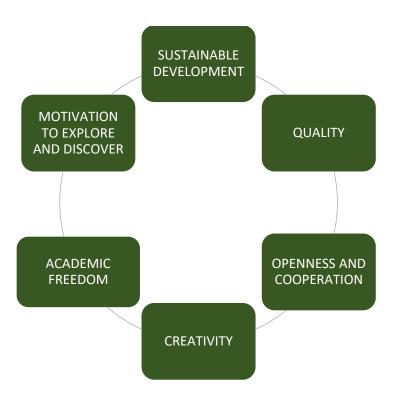
^{** 2020} data

^{*** 2023} data

Values

Riga Technical University has established values that not only contribute to the successful implementation of the University's goals and objectives, but are also respected in the planning of the University's development and daily actions, and are important for every employee and student of the University.

The values of Riga Technical University are:



Values	Explanation of values
Sustainable development	A balance between ecological, social and economic development, making reasonable use of available resources
Quality	Ensuring high quality results in all University processes, striving for excellence - proactive action as a driving force
Openness and cooperation	Openness to new knowledge, change and challenges; cooperation between different stakeholders
Creativity	Ability to generate original new ideas, approaches and concepts based on research and innovation
Academic freedom	Freedom in the design of study content and areas of research, fostering an open, stable environment in which to think independently and respectfully, to question, to share ideas, to innovate and to create
Motivation to explore and discover	To be at the forefront of developments in study, science, innovation - to be discoverers, not just followers

Mission

We are building a competitive, educated, innovative and creative future.

Vision

Riga Technical University - an internationally competitive, dynamic and modern science and technology university.

The guiding principle of the strategy

The guiding principle of the strategy is: High quality and efficiency - proactive linking of RTU activities with the needs of the national economy. RTU is one of the leading science and technology universities in the Baltic and Nordic regions, based on a studies system built on research, innovation and cooperation with industry. RTU prepares European and world-class engineers - leaders: developers of new technologies.

Strategic specialization

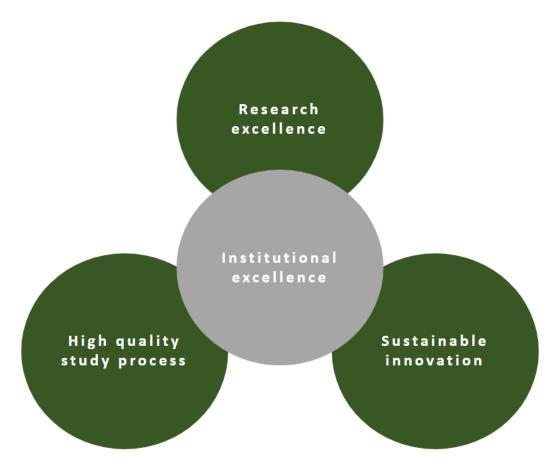
RTU is a science and technology university, providing excellence in the natural sciences, computer sciences, informatics, engineering and technology, social sciences, humanities and arts..

Key indicators

Indicator	2022	2025	2027
Willingness of graduates to recommend RTU to others (Alumni survey, share of positive responses)	67%	76%	83%
2. RTU's position in international university rankings (QS WUR)	751-800	Top 600	Top 500
3. RTU's contribution to the national economy (EUR per year)	874M	950M	1 Mrd.

Goals

RTU sets 4 main goals for the next planning period. Three of them are related to the development of RTU's core business - studies, research and innovation, and the fourth is the improvement of the university's support functions and internal governance - building institutional excellence.



1. Goal: Research excellence

Promoting international competitiveness and quality of research. Improve the support system and increase investment in equipment to ensure increased research performance and international excellence.

Tasks to achieve the goal

- Emphasis on high-level, internationally recognised (cited) publications;
- Completing the career path map for academic staff with a tenure-track professorship and a PhD support model;
- Enhancing the competitiveness of academic staff and and promoting growth of scientific results;
- Orientation towards projects that are in line with RTU's strategic, academic and research priorities;
- Renewal of scientific infrastructure.

2. Goal: High quality study process

Focus on attracting well-prepared students. Differentiated educational offer. More flexible approach to the choice of courses and the possibility for students to switch between programmes during their studies. Development of new perspectives: lifelong learning and digitalisation.

Tasks to achieve the goal

- Reduced number of study programmes and optimized offer of study courses;
- Raising the minimum entry requirements and attracting talented young people to study at RTU;
- Enhancing the quality of the study process;
- Emphasis on the use of modern equipment and digitisation in the study process;
- Additional focus on lifelong learning and retraining of the workforce.

3. Goal: Sustainable innovation

Proactive, clear and engaging cooperation with industry and partners to expand the ecosystem. Involvement of academic staff and students in innovation value chains, including in the creation of high-tech start-ups. Improvement of the support model and mechanisms for the involvement of students and staff in innovation processes. Development of entrepreneurial capacities of all RTU staff.

Tasks to achieve the goal

- Active customer-oriented communication, reaching out to industry, promoting cooperation with RTU;
- Broad involvement of students and academic staff in innovation processes;
- Creation of special grant funds for the development of new technologies and products, as well as for the development of business incubators and accelerators;
- Involvement of RTU and active its representation in the local and international innovation ecosystem, positioning RTU as a technology and innovation leader;
- Establishing and maintaining innovation support infrastructure.

4. Goal: Institutional excellence

Sustainable and modern management. An efficient, clear financial system based on strategic objectives. A well-organised study and research environment. 6 sub-goals are defined for institutional excellence.



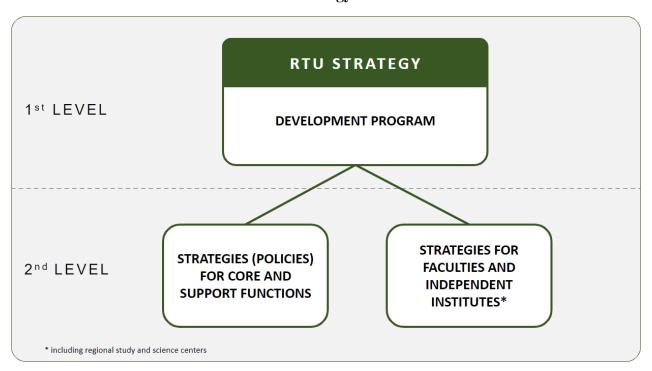
Sub-goals of institutional excellence:

- Digitization;
- Sustainable development;
- Effective management of financial and administrative operations;
- Internationalisation;
- Communication and cooperation;
- Human resources development.

RTU Strategy implementation and control process

RTU Strategy 2023-2027 is designed as the highest RTU development planning document. Other planning and development documents of the RTU shall be based on the goals and objectives included in the Strategy, supporting their implementation or conceptually complementing them.

RTU strategy levels



RTU development planning documents are structured on 2 levels, with the first level comprising the highest development and planning document of the University - RTU Strategy 2023-2027 with its annex - the Development Programme. The second level consists of documents derived from the Strategy - for the implementation of core functions and support or institutional excellence. The Vice-Rector for Development and Finance is responsible for the creation of the strategy, its implementation and monitoring of its execution. On the other hand, the progress of the implementation of the strategy is monitored by the Council of RTU. The RTU Strategy is the main development planning document of the University, which is used for RTU budget planning, making investments in accordance with the tasks set out in the Strategy.

Strategies for core and support functions and monitoring of their implementation

Strategies for core and support functions are designed as tasks to be carried out centrally, using the capacity of the university administration, in cooperation with faculties and independent institutes. Strategic planning documents at the second level are being developed for the period up to 2027 to implement the core functions (research, study and innovation processes) and support or institutional excellence activities (digitisation, sustainable development, efficient financial and administrative operations, internationalisation, communication and cooperation, human resources development). The RTU Development Programme identifies the persons responsible for the development, implementation and monitoring of each specific second-level strategy. The RTU Strategic Planning System is used to manage and monitor the implementation of the tasks included in the RTU Development Programme and the second-level strategies, and at the beginning of each

calendar year all RTU administration staff enter the objectives and tasks to be achieved for that year in accordance with the RTU Strategy and its subordinate documents. The setting of goals and objectives, their alignment with the RTU strategy and the monitoring of their implementation shall be carried out by the managers of the relevant employees in accordance with the RTU structure.

Monitoring and implementation of the strategies of faculties and independent institutes

RTU faculties and independent institutes develop their development strategies based on the goals, objectives and performance indicators included in the RTU Strategy 2023-2027.

The implementation of the strategies of RTU faculties and independent institutes and their link to the RTU Core Strategy and the performance indicators set out therein is monitored annually by the RTU Rector ensuring the annual definition of RTU goals and objectives with clear performance indicators at the level of each RTU unit. Based on these objectives, the implementation of the RTU strategy is ensured and the results achieved are analysed annually and the performance indicators to be achieved in the following year are agreed in 3 groups:

- Study process (September-August);
- Research process (January-December);
- Innovation process (January-December).

The targets for the study, research and innovation process of the faculties and independent institutes for the following year in accordance with the unit strategy are prepared by the deans of faculties and rectors of independent institutes in cooperation with deans, deputy deans and directors of institutes and approved by the Rector of RTU.

Risk management and monitoring

RTU defines and implements the strategy, being aware of the ever-changing opportunities and challenges that arise in the process of implementing the strategy. Risk management is a single, coherent and continuous process at all levels of the RTU to identify and assess threats that affect or could affect the achievement of the RTU's objectives, and to make decisions to reduce or eliminate them. The risk management framework identifies, assesses, analyses and controls those risks that affect the past, present and future activities of the RTU. The risk management process at RTU is linked to the strategic objectives of RTU and their implementation, including the RTU performance indicators. RTU assesses risks in the following areas: core functions (research, study and innovation processes) and support or institutional excellence functions (digitisation, sustainable development, efficient financial and administrative operations, internationalisation, communication and cooperation, human resources development).

The identification and management of risks at RTU shall be carried out in accordance with the RTU Risk Management Policy and the risk categories set out therein:

- strategic risks;
- operational risks
- financial risks
- legal/compliance risks;
- risks of fraud and corruption;
- project risks.

The Vice-Rector for Development and Finance is responsible for risk management at RTU, while the risk management process is coordinated and monitored by the RTU Risk Management Working Group (established by the Order of the Rector of RTU) in accordance with the risk management methodology approved in the University.

Abbreviations used in the Strategy

Abbreviation	Explanation of abbreviation
UN SDG	United Nations Sustainable Development Goals
BBCE	Baltic Biomaterials Centre of Excellence
CERN	European Organization for Nuclear Research
EFQM	European Foundation for Quality Management Model of Excellence
EUR	Euro
EUt+	European Consortium of Universities of Technology (European University of Technology)
H2020	Horizon 2020 - the EU framework programme for research and innovation
kWh	Kilowatt-hours
Latvia 2030	Sustainable Development strategy of Latvia to 2030
LiepU	University of Liepaja
LJA	Latvian Maritime Academy
m^2	Square metres
m^3	Cubic metres
miles.	Millions
billion.	Billions
MOOC	Massive Open Online Course
NAP2027	Latvian National Development Plan 2021-2027
R&D	Research and development
FTE	Full-time equivalent position
RTA	Rezekne Academy of Technologies
RTU	Riga Technical University
Scopus	Database of scientific publications
STEM	Science, technology, engineering, maths
STEAM	Science, technology, engineering, arts and maths
THE	International ranking "The Times Higher Education World University Rankings"
theLAB	Open-type workshop
QS WUR	International ranking "QS World University Rankings"
Web of Science	Database of scientific publications



RTU DEVELOPMENT PROGRAMME 2023-2027

Riga, 2023

Introduction

The main goals and objectives of the RTU Strategy are defined in the RTU Strategy document. The Development Programme provides certain indicators to be used as a basis for the next level of strategy formulation and university development planning.

The following are responsible for preparing the University's second-level strategic planning documents:

Level 2 strategy	Responsible
Study development Strategy	Vice-Rector for Studies
Research development strategy	Vice-Rector for Research
Innovation strategy	Vice-Rector for Innovation
Digitalization strategy	Administrative Director
Sustainable development strategy	Vice-Rector for Development and Finance
Effective management of financial and administrative operations strategy	Vice-Rector for Development and Finance, Administrative Director
	Vice-Rector for Studies,
Internationalization attentogy	Vice-Rector for Research,
Internationalization strategy	Vice-Rector for Innovation,
	Vice-Rector for Development and Finance
Communication and cooperation strategy	Vice-Rector for Development and Finance
Human resources development strategy	Administrative Director

OBJECTIVES FOR S	STUDY, RESEARCH	I AND INNOVATION

Goal: Research excellence

Promoting international competitiveness and quality of research. Improve the support system and increase investment in equipment to ensure increased research performance and international excellence.

Objectives:

By adding the institutions to be consolidated, the baseline data and targets will be updated, applying the growth forecast provided in the strategy to the composition of all the legal structural units of the RTU in the relevant year.

1. Emphasis on high-level, internationally recognised (cited) publications

Develop a system for evaluating research performance and improve incentives and support tools to increase the quality of publications. Modernize digital tools for research management, enabling data-driven decision-making and increased research performance.

Indicators	2022	Target 2025	Target 2027
Number of Q1-Q2 scientific publications in SCOPUS/WOS databases	400 (2021)	460 (2024)	500 (2026)
Normalized citation rate (Field-Weighted Citation Impact (FWCI). SCOPUS, 3-year average)	1.03 (2019-2021)	1.36	1.47

2. Completing the academic staff career roadmap with a tenure-track professorship and a PhD support model

Improve the recruitment process for tenured professors to ensure a full-fledged international competition and attract strong foreign candidates in the field of science. Ensure academic staff renewal by increasing the number and support of PhD and postdoctoral researchers.

Indicators	2022	Target 2025	Target 2027
Number of tenured professors	3	15	20
Number of PhD graduates	53 (2021/2022)	50	60

3. Enhancing the competitiveness of academic staff and promoting growth of scientific results

Promote the growth, motivation and career development of RTU researchers.

Develop RTU internal projects as a tool for competitiveness and skills development. Promote the development and professionalism of research support staff.

Promote international cooperation, ensure active involvement of RTU researchers in research projects implemented by international consortia, as well as increase the number of research projects and publications produced in collaboration with foreign co-authors. Attract foreign academic staff. Promote a culture of collaboration among researchers by creating interdisciplinary research groups, creating opportunities for researchers to share ideas and resources.

Create a detailed action plan to achieve RTU enters the TOP500 in international university ranking QS WUR.

Indicators	2022	Target 2025	Target 2027
Attracted research funding to one full-time equivalent of the research staff (EUR/research staff FTE, excluding revenue from collaboration with industry, i.e. contract work, invoice-based revenue, use of equipment)	21.4K	27.8K	32.2K
Number of joint publications with	375	460	480
foreign partners (SCOPUS)	(2021)	(2024)	(2026)

4. Orientation towards projects that are in line with RTU's strategic, study and scientific priorities

Enhancing funding for research, including an increase in the number of projects awarded in international competitions, budget funding, funding from agencies, research funding competitions, industry partners and philanthropic organizations. Develop clearer research priorities in collaboration with academic personnel and other stakeholders to identify key research areas and potential sources of research funding. Focus Research Platforms on RTU strategic goals.

Indicators	2022	Target 2025	Target 2027
Total amount of funding attracted from research projects			
(EUR, excluding revenue from cooperation with industry, i.e. contract work, invoice-based revenue, use of equipment)	11.6M	15.1M	17.4M
The share of funding attracted in international competitions from the total funding of research projects	20%	35%	40%
(Horizon Europe, etc.)			

5. Renewal of research infrastructure

Promote the renewal of RTU's research infrastructure. To ensure that competitive scientific fields are equipped with modern and up-to-date equipment. Establish a separate fund to finance the renewal of research equipment.

Indicators	2022	Target 2025	Target 2027
Funding invested in the acquisition and renewal of research equipment (EUR)	2.5M	5.7M	6.8M

Goal: High quality study process

Focus on attracting well-prepared students. Differentiated educational offer. More flexible approach to the choice of courses and the possibility for students to switch between programmes during their studies. Development of new perspectives: lifelong learning and digitalization.

Objectives:

By adding the institutions to be consolidated, the baseline data and targets will be updated, applying the growth forecast provided in the strategy to the composition of all the legal structural units of the RTU in the relevant year.

1. Reduced number of study programmes and optimized offer of study courses

Promote cooperation between faculties and departments in the implementation of study programmes and courses, with the aim of avoiding fragmentation and overlap. To consolidate existing study programmes in the form of certain specialisations, integrating study programmes of LJA, RTA, LiepU.

Specify a minimum number of students per study programme, assessing and defining conditions for specific study programmes which are of strategic importance and which, due to the nature of their implementation, can continue to operate with a lower number of students.

Indicators	2022	Target 2025	Target 2027
Minimum number of students in a bachelor's degree programme	Not specified	100	150
Number of study programmes (which are open for admission, including joint programmes)	127 (2022/2023)	105	95

$\boldsymbol{2}.$ Raising the minimum entry requirements and attracting talents to study at RTU

Raise the minimum admission requirements for applicants (including foreign applicants) and introduce centralised entrance examinations to improve the quality of the study process and reduce student dropout.

Develop the RTU Education Policy, which includes guidelines for quality assurance of the study process, including student enrolment and dropout reduction.

Key actions to reduce student dropout: (1) Admission - develop of student attraction policies for different specialisations and levels of study; increase awareness of applicants about the content of specific study programmes and the study process (handbooks, information campaigns). (2) Study process - development of a student support system, involving student self-governments; student guide; mapping of course requirements to prevent student overload; improvement of study programme/course content, balance between theoretical and practical tasks, involvement of students in research projects to strengthen student motivation; more flexible transition options between study programmes, development of an early warning system for dropout risks. (3) Development of final papers and other examinations - review of final paper requirements and development process, ensuring adequate preparation of students and timely start of the development of papers.

Develop the RTU Talent Programme, which helps attract the best-prepared secondary school graduates and differentiates the study process.

Indicators	2022	Target 2025	Target 2027
Talent attraction indicator (number of students enrolled in undergraduate studies who scored at least 60% in the centralised examination (CE) in mathematics, compared to the average number of Latvian secondary school graduates in the last three years who scored at least 60% in the CE in mathematics (45% after the transition to multi-level exams))	31%	40%	45%
Completion rate in undergraduate studies (Share of students who complete a degree or qualification in the nominal period of study + 2 years)	33% (2021/2022)	40%	45%

3. Enhancing the quality of the study process

Promote the quality of the study process by involving highly qualified academic staff, experts from the industry, foreign academic staff, etc. Implementation of an academic staff evaluation system that will promote the quality of the study process and serve as a mechanism for self-evaluation and continuous improvement of the university's academic staff, including ensuring the development of sustainability, diversity and digital competence, aligning individual goals with organizational goals, as well as developing the potential of employees for their professional and RTU development.

Promote the successful integration of RTU graduates into the labour market by building competences necessary for the labour market, developing critical thinking, ensuring theoretical and practical skills development in cooperation with industry and employers.

Indicators	2022	Target 2025	Target 2027
Student assessment of the quality of studies (average score on a 5-point scale in student pre-semester surveys)	4.2 (2021/2022)	4.2	4.5
Employment of graduates in higher qualification occupations (HQO) (according to the Ministry of Education and Science's Graduate Monitoring data, employment of graduates in the last 3 years in the HQO; % of employed graduates. HQO - occupational classifier main groups 0 - 3 (managers, senior specialists, specialists, National Armed Forces occupations))	81% (Employment of 2018-2020 graduates in the HQO in 2021)	83%	85%

4. Emphasis on the use of modern equipment and digitisation in the study process

Promote the development and acquisition of modern equipment and infrastructure by increasing the number of teaching aids prepared in digital format. Provide academic staff with the necessary content and technical support for the digitisation of the study process. Develop digital laboratories and digitise practical work opportunities. Create fully distance-learning courses (MOOCs) and provide RTU students with access to MOOCs created by international partners.

Indicators	2022	Target 2025	Target 2027
Number of fully distance-delivered courses (e.g. MOOCs)	5	40	50
Share of courses using AI and other modern* tools and software (*according to the guidelines of the Office of the Vice-Rector for Studies; share of all courses)	15%	45%	80%

5. Additional emphasis on lifelong learning and retraining of the workforce

Develop the lifelong learning and continuing education opportunities offered by the University. Take advantage of digital content to increase the number of lifelong learning students.

Indicators	2022	Target 2025	Target 2027
Number of certificates issued in adult lifelong learning programmes/courses	2 066	5 000	7 500
(for external customers)			

Goal: Sustainable innovation

Proactive, clear and engaging cooperation with industry and partners to expand the ecosystem. Involvement of academic staff and students in innovation value chains, including in the creation of high-tech start-ups. Improvement of the support model and mechanisms for the involvement of students and staff in innovation processes. Development of entrepreneurial capacities of all RTU staff.

Objectives:

By adding the institutions to be consolidated, the baseline data and targets will be updated, applying the growth forecast provided in the strategy to the composition of all the legal structural units of the RTU in the relevant year.

1. Active customer-oriented communication, reaching out to industry, promoting cooperation with \ensuremath{RTU}

Purposefully and actively build RTU's public image as a competent, collaborative partner for industry. Strengthen the position of each academic staff member as an expert in a specific field. Establish and communicate both internally and externally a one-stop agency for cooperation with industry. Increase the involvement of industry partners in the innovation process.

Indicators	2022	Target 2025	Target 2027
Revenue from cooperation with			
industry	2.2M	2.3M	2.5M
(EUR per year, incl. contract work, invoice-based revenue, use of equipment)	_,,	2,01,1	2.02.12
Funding for innovation capacity			
building	1M	5M	10M
(EUR per year, incl. EU projects, grants, investments)	1141	3141	1011

2. Broad involvement of students and academic staff in innovation processes

Establishment and development of the Science and Innovation Center, including scaling up the operational model to increase student involvement in innovation and knowledge transfer. Develop students' entrepreneurial and innovation capacities by offering courses that foster these capacities, co-creation opportunities, opportunities to participate in projects and business incubators. Continue to develop innovation competences and offer new opportunities for academic staff to create innovative products and start a business.

Indicators	2022	Target 2025	Target 2027
Number of RTU students involved in innovation activities per year	1205	2410	2650
Number of RTU academic/research staff involved in innovation activities per year	68	135	150

3. Creation of special grant funds for the development of new technologies and products, as well as business incubators and accelerators

Establish a stable, sustainable financing system to support innovation and start-ups. To provide an internal support model for funding and support activities for RTU students and academic staff for product commercialisation and technology transfer, as well as for business start-ups.

Indicators	2022	Target 2025	Target 2027
Number of start-ups supported	41	47	49

4. Involvement of RTU and active its representation in the local and international innovation ecosystem, positioning RTU as a technology and innovation leader

Ensure active participation in ecosystem representative organisations or their platforms, ensuring RTU interests, fundraising for RTU innovation activities and exchange of experience. Actively participate in the development of Latvian, European and global innovation ecosystems and position RTU as an active part of it.

Indicators	2022	Target 2025	Target 2027
Public opinion assessment of RTU's activities in the field of technology and innovation development (representative survey of population aged 18-60 years, share of positive answers)	66%	70%	72%
Number of collaborative projects or activities implemented with external partners aimed at developing the innovation ecosystem at RTU	28	30	32

5. Establishing and maintaining innovation support infrastructure

To create a unified RTU innovation ecosystem infrastructure that facilitates mutual cooperation, knowledge transfer, creativity and innovation development at all levels. Actively use, expand and improve existing shared spaces, providing them with the necessary tools and equipment. Implement the expansion of the network of open-type workshops (theLAB) and the renewal of equipment. Increase the capacity of prototyping facilities used for innovation activities.

Increase the thematic scope of communities covered by RTU innovation activities.

Indicators	2022	Target 2025	Target 2027
Number of people who have used the open-type workshops (theLAB)	135 (2021)	600	640

THE	ORIECTIVES	OF INSTITUTIONAL	EXCELLENCE

Goal: Institutional excellence - Human resources development

Attracting highly qualified personnel. RTU is committed to the career development and professional development of its personnel, to a good organisation of work and an appropriate working environment, and to systematic and regular communication. RTU plans the development of personnel competences, promoting the professionalism and efficiency of the personnel and the implementation of the principle of lifelong learning, as well as increasing their competitiveness in the labour market. The Professional Development Plan is designed to ensure capacity building and skills development of human resources, thus contributing to the excellence of the University and its transformation into a supportive, people-centred and efficient organisation. Improvement of the career path map for academic staff through increasing tenure-track professorships. Attracting and supporting young researchers, establishing a mentoring programme. Promoting staff development and motivation. Introducing modern and efficient HR management solutions. Improvement of the remuneration system by reducing the fragmentation of posts and contracts, improving the incentive system and raising staff awareness of the principles of remuneration.

Objectives:

By adding the institutions to be consolidated, the baseline data and targets will be updated, applying the growth forecast provided in the strategy to the composition of all the legal structural units of the RTU in the relevant year.

1. Creation of personnel development programme and career path development for academic personnel

Reduce the fragmentation of positions in research and study processes. Develop and implement a mentoring system to support young researchers in their successful career path from PhD student to professor. Encourage staff development. Implement academic staff performance management and predictive career module systems.

Indicators	2022	Target 2025	Target 2027
Results of the employee survey "I am satisfied with my career development opportunities at RTU"		70%	85%
Share of elected academic and research staff who participated in professional development activities in the reference year (of the total number of elected academic/research staff)	50%	80%	85%

2. Development of leadership skills of managers

Promote the development of leadership, sustainability, diversity management and resource management skills of RTU department heads. Develop and implement a system of evaluation of managers according to the level of the manager's position and job specifics. Motivate managers to actively contribute to the professional development and career development of their staff. To develop the competences necessary for the manager's day-to-day core activity. Leadership of managers - setting clear tasks, ethical and open communication, providing advice and support, delegating tasks effectively, motivating staff and attracting talent to the team.

Indicators	2022	Target 2025	Target 2027
Share of trained managers (according to the level and specifics of the position, in line with RTU Sustainable Development Strategy and Diversity Management Guidelines)	30%	80%	85%
Share of managers who evaluated all their staff in the performance appraisal system in the reference year	-	85%	99%

3. Improvement of the remuneration and motivation system

Improve the remuneration system by making it transparent, understandable, internally fair and predictable. The aim of the remuneration system is to ensure competitive pay, equal pay for equal work, a common approach to pay progression; transparency and a common framework. Develop a common methodology for calculating remuneration for all academic staff in order to promote staff retention, motivation and a sense of stability. RTU shall value each staff member's performance, talents, professional abilities, skills and potential, providing opportunities to participate in studies, research, innovation and other areas of RTU activities. Develop a motivation programme for employees. RTU takes care of employees' work safety, health, mental and physical well-being, financial and non-financial motivation programme, successful integration process of new employees and correct termination of employment.

Indicators	2022	Target 2025	Target 2027
Results of the employee survey "The pay I get is fair"	40%	70%	90%
Average remuneration of academic staff (EUR/per month/gross/ FTE)	2 353	2 932	3 396

Goal: Institutional excellence - Digitization

Integrating modern digital technologies and IT innovations into all areas of activity. Making everyday life easier for RTU students and staff, improving the efficiency of the university and implementing new activities that help RTU become a leader in data processing.

Objectives:

By adding the institutions to be consolidated, the baseline data and targets will be updated, applying the growth forecast provided in the strategy to the composition of all the legal structural units of the RTU in the relevant year.

1. Renewal and development of IT infrastructure

Conduct an IT system audit with the aim of establishing a clear and coherently managed architecture for the University's IT systems and achieving cross-system and data integration. Develop a centralised data warehouse and tools that provide an unified interface for RTU data analysis and management improvement. Provide online access to data with an option of self-service analysis. Primarily implement the development of study management and financial management systems. Ensure capacity growth and continuity of the IT infrastructure by improving the security of IT systems and risk management.

Indicators	2022	Target 2025	Target 2027
Total investment in IT infrastructure and systems			
(EUR, according to the established IT infrastructure and systems development plan, amount for the period 2022-2027)	0.3M	2M	7M

2. Development of users' IT competences and skills

To define a minimum set of IT competences for RTU employees and to develop support mechanisms to improve these competences. Develop new methods of IT literacy training and motivate employees to improve their skills. Promote the use of the RTU unified digital identity among RTU staff and students.

Indicators	2022	Target 2025	Target 2027
Share of RTU staff who have the minimum set of IT competences to work successfully in RTU information systems	Not defined	60%	90%

3. Ensuring cybersecurity and data protection

Implement measures in accordance with the "RTU Information Systems Security Policy", which provides security of information systems and data protection. Implement IT security measures to ensure appropriate integrity, availability and confidentiality of data (including personal data) maintained in information systems. Carry out system classification and risk analysis. Automate the diagnosis and control of software vulnerabilities. Take measures to monitor data security by implementing appropriate tools. Promote the security and protection of personal data by developing methods and tools to ensure the security of information systems.

Indicators	2022	Target 2025	Target 2027
Number of RTU information systems with mandatory multi- factor authentication solutions	15%	80%	100%

Goal: Institutional excellence - Effective management of financial and administrative operations

Improvement of RTU's financial and administrative operations with the aim of reducing RTU's administrative burden and costs. Find new sources of revenue to contribute to the overall growth of RTU revenues. Provide adequate and efficient support to RTU study and research units in the implementation of their activities and in the administration of projects.

Objectives:

By adding the institutions to be consolidated, the baseline data and targets will be updated, applying the growth forecast provided in the strategy to the composition of all the legal structural units of the RTU in the relevant year.

1. Effective management of financial resources

Promote financial literacy among RTU department managers. Strengthen financial management competences in the faculties. Set financial targets for all RTU departments. Increase the total amount of funding devoted to the remuneration of academic and scientific staff by proportionally reducing central administration costs.

Indicators	2022	Target 2025	Target 2027
Equity to balance sheet	57.2%	not less than 50.0%	not less than 50.0%
RTU absolute operating liquidity ratio (Cash against Current liabilities)	0.82	not less than 0.3	not less than 0.3

2. Raising revenue and developing new sources of revenue

Developing new sources of financial revenue. Increasing income from continuing and lifelong learning courses and other sources of income. Identification of RTU staff responsible for the specific business function (revenue centre). Implement measures to improve the efficiency of project management.

Indicators	2022	Target 2025	Target 2027
Revenue source diversification indicator (revenue from paid services (excluding transfer payments) to the amount of the public grant (excluding project funding))	0.65	0.68	0.70
Revenue from paid services (EUR, excluding transfer payments)	20.65 million	23.75 million	26.85 million

3. Ensuring effective mangement

In accordance with the "RTU Infrastructure Development Plan 2023-2027", to concentrate RTU study, research, innovation and dormitory infrastructure in or near the Ķīpsala campus. To create new and transform existing premises according to the principle of shared use, thus promoting more efficient space utilisation. Centralise the management of RTU infrastructure. Reduce energy consumption. Ensure the implementation of the EFQM quality management model principles in management processes to reduce administrative burden and resource consumption. Conduct an annual assessment of administrative processes to identify the most complex and resource-intensive ones.

Indicators	2022	Target 2025	Target 2027
RTU study space occupancy in Kipsala campus buildings	31% (2020)	45%	50%
Average rating of RTU planning and management processes (RTU employee survey, 5-point scale)	3.0	4.0	4.2

Goal: Institutional excellence - Sustainable development

Integrating sustainability and the UN Sustainable Development Goals (SDGs) into study, research, innovation and governance processes. Sustainable and efficient use of resources, reduction of negative environmental impacts. Promoting RTU's corporate social responsibility in cooperation with key stakeholders.

Objectives:

By adding the institutions to be consolidated, the baseline data and targets will be updated, applying the growth forecast provided in the strategy to the composition of all the legal structural units of the RTU in the relevant year.

1. Integrating sustainable development concepts into study content and research activities

Strengthen faculty competences and understanding of sustainability and the UN SDGs. Develop a mapping of RTU study programmes, identifying the contribution of each study programme to the implementation of the SDGs. To create and develop a sustainable, inclusive study environment.

Promote the linking of research publications and projects to the UN SDGs. Map RTU research performance against SDGs areas. Ensure the identification and promotion of RTU experts in SDGs areas, both within the RTU environment and in society.

Indicators	2022	Target 2025	Target 2027
Number of study programmes with at least 3 SDGs defined (share of total number of study programmes)	0	100%	100%
Number of publications in SDGs fields (share of total publications in SCOPUS)	43% (2021)	60% (2024)	70% (2026)

2. Sustainable management of infrastructure and resource

Moving towards climate neutrality is one of RTU's priorities, which includes the sustainable and efficient use of resources, the reduction of negative environmental impacts and the use of modern green technologies. To develop and promote Ķīpsala as a smart city of the future, a place for the creation, demonstration and testing of green technologies. Involve RTU staff and students in the development of RTU environment and infrastructure.

Indicators	2022	Target 2025	Target 2027
Electricity consumption per 1 RTU representative (kWh, students and employees)	511	424	398
Heat energy consumption per 1 RTU representative (kWh, students and employees)	1102	936	907

3. Corporate social responsibility

Promote the strengthening of inclusive values and the development of an inclusive environment, in accordance with the RTU Diversity, Equality and Inclusion Policy. To promote the importance of the concepts of diversity and equality among staff and students and to mainstream them into the daily life of RTU. To organise activities targeted at different groups of society with the aim of creating an image of a socially responsible and sustainable university.

2022	Target 2025	Target 2027
33%	40%	50%
		2022 2025

Goal: Institutional excellence - Internationalization

Enhancing international competitiveness and promoting cooperation in research, innovation and studies. Strengthening RTU's international image and recognition. Improvement of attraction process of international partners and students and improvement of the study process for international students.

Objectives:

By adding the institutions to be consolidated, the baseline data and targets will be updated, applying the growth forecast provided in the strategy to the composition of all the legal structural units of the RTU in the relevant year.

1. Building RTU's international image and recognition

Promote RTU's international recognition by organising and participating in international conferences, projects and joint summer/winter schools, as well as international education exhibitions. To cooperate with Latvian and foreign government institutions and representations. Raise RTU's prestige and provide new opportunities for RTU as the leading technical university in the Baltic States. To monitor and analyse the international image of RTU. To carry out selection of priority foreign cooperation partners and assess the potential for closer cooperation. Analysis and segmentation of cooperation partners for different cooperation purposes.

Indicators	2022	Target 2025	Target 2027
Active cooperation agreements with universities of TOP 500	102 (2021)	105	110
Academic Staff Reputation Index (Academic Reputation Index by QS WUR)	11.8 (QS WUR 2023)	14.0	16.9

2. Improving the recruitment of international students and academic staff and the study process

Improve RTU's offer of study programmes in English. Focus on attracting international students to higher level studies, expanding existing markets and developing new target markets. Develop RTU study and information centres abroad, joint preparation programmes and scholarship programmes. Ensure international credit recognition agreements.

Indicators	2022	Target 2025	Target 2027
Share of international graduates (of total number of graduates)	16.6% (2021/2022)	18%	20%
Foreign academic staff, number per year	109 (2021/2022)	120	130

3. More active involvement of RTU staff and students in international research and academic cooperation (including international mobility)

Ensure coherent and coordinated work with international partners and organisations. Actively use the opportunities of the European universities' initiative (e.g. EUt+) to promote RTU's international impact, research cooperation, mobility, student attraction and the promotion of engineering. Intensify cooperation with universities included in the European university initiative.

Indicators	2022	Target 2025	Target 2027
Number of RTU staff who participated in international mobility activities per year	75 (2020)	150	225
Share of graduates who have been on international mobility during their studies (incl. EUt+ universities, during the study period at the relevant level of study)	7.3% (2021/2022)	12%	17%

Goal: Institutional excellence - Communication and cooperation

Improving internal and external communication in a planned and structured way. RTU image positioning, competitive advantage definition and communication using a modern, qualitative and targeted communication approach.

Objectives:

By adding the institutions to be consolidated, the baseline data and targets will be updated, applying the growth forecast provided in the strategy to the composition of all the legal structural units of the RTU in the relevant year.

1. Improving external communication

To improve and complement the external communication concept with a unified RTU message, firstly, by including the messages and competitive advantages of the new RTU structural units (Latvian Maritime Academy, Liepaja Maritime College, etc.), secondly, to modernise the university's graphic identity and positioning in the Latvian society and international environment in line with the changes implemented at the university. To raise the image and recognition of RTU in society by proactively creating cooperation and a concrete message to the following target audiences important for RTU: industry and industry associations, public institutions and decision-makers, media, pupils and parents, schools.

Make the most of digital solutions and tools in RTU's internal and external communication. Maintain and update a wide range of communication channels according to different target audiences. To ensure high quality, up-to-date and channel-appropriate visual communication and content.

Indicators	2022	Target 2025	Target 2027
The best university in Latvia, according to public opinion	2nd place	1st place	1st place
(Representative survey of the Latvian population aged 18-60)			

2. Improving internal communication

Improve internal information flow among RTU staff and students. To promote the strengthening of RTU as a united organisation with all its departments and employees oriented towards common goals.

Indicators	2022	Target 2025	Target 2027
Results of the employee survey "I am proud to work at RTU"	88%	89%	89%
Results of the employee survey "I am sufficiently informed about RTU activities"	77% (2021)	77%	79%

3. Promoting STEM education

In line with the RTU STEAM Education Promotion Concept, to foster pupils' and young people's interest in engineering, science and IT, including through collaborative platforms with schools and teachers in STEM fields. Ensure the development of the RTU Curiosity Centre "Futurimo Riga" and the offer and accessibility of the Children and Youth University activities in schools by developing and implementing content for formal and interest-based education.

Indicators	2022	Target 2025	Target 2027
Young people's desire to study STEM fields at RTU (number of applications with first priority to RTU STEM study programmes vs. number of graduates from all Latvian secondary education institutions (average over the last 3 years). Number of secondary school graduates = number of CE mathematics passers)	14.0%	14.7%	15.4%
Number of visitors to Futurimo Riga (open from 2023)	-	24K	30K