

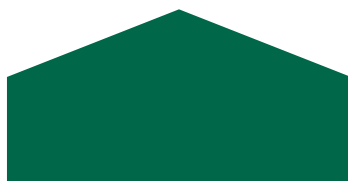
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LATVIA UNIVERSITY OF LIFE SCIENCES AND TECHNOLOGIES

DEVELOPMENT STRATEGY 2023–2027

Jelgava, 2022



INTRODUCTION

The Latvia University of Life Sciences and Technologies (hereinafter referred to as LBTU or the University) implements its strategy as a modern, open, inclusive, innovative university with a sustainable development vision in various areas of the national economy. Life sciences, which are also integrated into other areas of strategic specialisation determined by LBTU, are considered to be the unique field of the University's activity. LBTU is a science university – a leader in the creation of innovations related to the bioeconomy and related industries and in the sustainable use of natural resources in the Baltic Sea region, contributing to the introduction of innovations in the national economy to promote the balanced development of Latvia's regions and improvement of the quality of life of society.

The LBTU Development Strategy of 2023–2027 is a medium-term planning document based on LBTU's vision, mission and strategic goals, which have been determined by assessing the current situation, future opportunities and challenges.

The LBTU Development Strategy of 2023–2027 ensures the succession of goals and tasks of the University's Development Strategy of 2015–2022. It has been developed in accordance with the priorities defined in the strategic development and planning documents of the European Union (EU) and Latvia, including:

- the National Development Plan of Latvia for 2021–2027
- the Guidelines for the Development of Education for 2021–2027 “Future Skills for the Future Society”
- the Guidelines for Science, Technology Development, and Innovation for 2021–2027
- the Latvian Open Science Strategy for 2021–2027
- the European Strategy for Universities
- the EU growth strategy, the European Green Deal
- the Digital Transformation Guidelines for 2021–2027
- the National Industrial Policy Guidelines for 2021–2027
- the Latvian Bioeconomy Strategy of 2030

and promotes their achievement by contributing to the implementation of EU and Latvian policies and the achievement of the goals set for them.

LBTU implements its activities in accordance with the areas of strategic specialisation, which form the basis for planning the strategic development of the University and developing the strategy, by determining the primarily developed fields of science:

life sciences (agricultural, forestry and veterinary sciences),
 engineering and technologies,
 social sciences.

In order to ensure excellence in the research and study process and the successful integration of the University into the international ecosystem of universities and scientific institutions, LBTU has created a science university ecosystem – a unified framework of commercial companies, scientific institutions, education institutions and other organisations as a set of institutions working purposefully under the direction and supervision of the university, including LBTU APP “Institute of Horticulture” and APP “Institute of Agricultural Resources and Economics”. LBTU will continue to strengthen and expand the science university ecosystem.

In addition, in order to ensure succession and integrity, the study and research ecosystem shall take into account the opportunities and developed strategies of LBTU SIA “Bulduru Dārzkopības vidusskola”, LBTU agency “Malnavas koledža”, as well as SIA training and research farm (MPS) “Vecauce”, agency “Meža pētīšanas stacija”.

LBTU sets three strategic goals for the next planning period – research excellence and innovation capacity, high-quality studies and excellence in university management, the achievement of which is ensured by three

Action Programmes: Research Programme, Study and Lifelong Learning Programme and Management Programme. Each Action Programme defines specific tasks to be performed, as well as corresponding result indicators for monitoring the implementation of the strategy.

The description of the University's activities is included in the annex to the strategy.

BASIS FOR STRATEGY IMPLEMENTATION

Vision

The Latvian University of Life Sciences and Technologies is a modern, nationally and internationally recognised science university – a leader in the creation of innovations related to the bioeconomy and related industries and in the sustainable use of natural resources in the Baltic Sea region.

Mission

Creation of an internationally competitive, innovative, creative and sustainable future for the development of society.

Values

COMMUNITY	We are a community that respects common values and traditions, ensures openness, diversity, equality and inclusion, supports the well-being of each community member, while defining the duties and responsibilities of each member in achieving the common goal.
ACADEMIC FREEDOM	We value the rights of every individual, giving community members the opportunity to educate students, engage in research, study and acquire knowledge without restrictions imposed by institutions or societal pressures.
KNOWLEDGE	We are convinced that research-based knowledge is the main driver for development. We create such knowledge by contributing to the development of Latvia and the world.
DEVELOPMENT	We believe that improvements in the research and education environment ensure continuous and planned development.
QUALITY AND INTEGRITY	Our employees and students perform every duty and task conscientiously and with high responsibility.
SUSTAINABILITY	We are aware of our responsibility for what is happening around us. To us, being responsible means to see challenges, search, find and implement sustainable solutions based on true knowledge, respecting ethical and moral principles. We act with an understanding of goals and achievable results, ensure continuity of action and are responsible to partners.
COLLABORATION	We encourage collaboration between employees, students, alumni and partners of all levels and fields.
CREATIVITY	Our staff and students create and maintain an environment that inspires, encourages and supports ideas and creativity that result in original and meaningful works and solutions.
OPENNESS	It is important for us that everyone who wants to receive and create knowledge, develop ideas and creativity can belong to the University. We are open to thoughts, ideas, knowledge and complementary cooperation based on tolerance and non-discrimination.

KEY PERFORMANCE INDICATORS

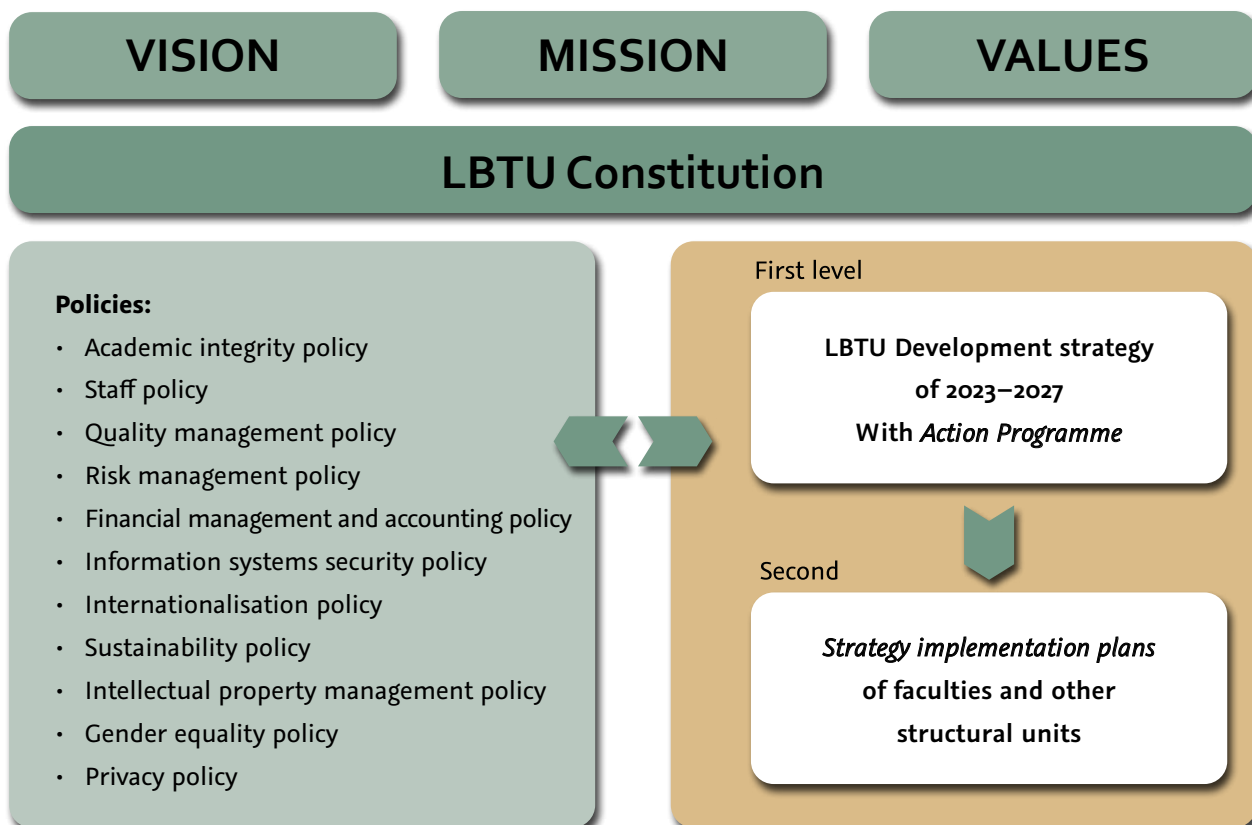
Indicators	2022	Planned value	
		2025	2027
LBTU's place in the world university rankings "Times Higher Education World University Rankings":			
In the field of life sciences	801+	801+	601+
In the field of engineering and technologies	1001+	801+	801+
In the field of social sciences	601+	601+	601+
The share of Q ₁ –Q ₂ publications in the total number of publications included in the <i>Scopus</i> and <i>Web of Science</i> databases (per year, n-2*), %	27% (2020)	30% (2023)	33% (2025)
Doctoral theses defended at LBTU, number per year	11 (2021)	15	20
The proportion of funding raised within the framework of international scientific cooperation from the LBTU scientific activity funding (per year), %	13% (2021)	15%	17%
Business (private) funding from LBTU scientific activity funding (per year), %	7% (2021)	8%	9%
Proportion of foreign students at LBTU, %	4%	8%	11%
The share of LBTU graduates' remuneration from the average salary in the national economy (n-2), %:			
Bachelor's study programmes	105% (2020)	110% (2023)	115% (2025)
Master's study programmes	139% (2020)	150% (2023)	160% (2025)
Level of satisfaction of LBTU students with acquired knowledge (student evaluations on a 5-point scale), points	4.2	4.3	4.4
LBTU employee satisfaction index (consolidated index from the employee satisfaction survey on a 5-point scale), points	3.86	4.0	4.1

*n – reference year.

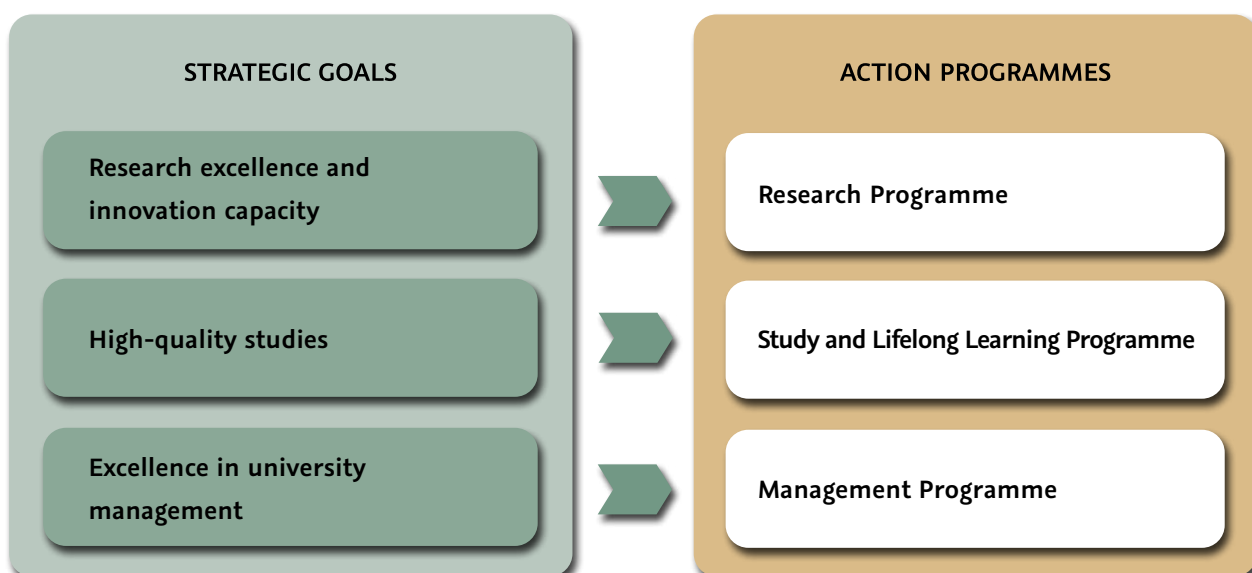
¹ Scientific activity funding – funding for research and development projects of the European Union Framework Programme implemented by LBTU, other international projects, as well as research and development projects financed by the Latvian state budget, obtained through a competition process of a scientific institution, research and development contract works with merchants, public persons and other customers and revenues from the transfer of intellectual property rights, as well as base funding for scientific activity and performance funding for research results

STRATEGY IMPLEMENTATION AND CONTROL

LBTU operates in accordance with the University Constitution. LBTU Development Strategy of 2023–2027 is the highest development planning document. LBTU's development planning documents are structured on two levels, but the University's priorities are determined by policy documents developed in the relevant fields.



The first level includes the LBTU Development Strategy of 2023–2027 with Action Programmes that ensure the achievement of strategic goals. LBTU sets three strategic goals for the next planning period, the achievement of which is ensured by three Action Programmes.



The LBTU Council approves the LBTU Development Strategy of 2023–2027 and monitors its implementation progress, the operation of internal control and risk management systems. The Rector, in cooperation with the University's faculties and heads of other structural units, ensures the implementation of the Development Strategy. The LBTU Counsellors' Convention advises the LBTU Council, Senate and Rector on LBTU development strategy issues.

The following persons are responsible for the implementation of Action Programmes:

Action programme	Person responsible
Research Programme	LBTU Vice-Rector for Science
Study and Lifelong Learning Programme	LBTU Vice-Rector for Studies
Management Programme	
<i>I. Improvement of the management system</i>	In accordance with his/her competence, LBTU Rector, Vice-Rector for Science and Vice-Rector for Studies
<i>II. Maintenance of properties and improvement of their management efficiency</i>	LBTU Director and Chancellor
<i>III. Digitalisation of the research and study environment</i>	In accordance with his/her competence, LBTU Vice-Rector for Science, Vice-Rector for Studies, Director and Chancellor

STRATEGY IMPLEMENTATION PLANS

The second level includes the *Strategy Implementation Plans* of the faculties and other structural units, in which the execution of the tasks specified in the Action Programmes and the achievement of performance indicators are delegated.

Faculties and other structural units create their *Strategy Implementation Plans* based on the goals, tasks and performance indicators set in the LBTU Development Strategy of 2023–2027.

Faculties' *Strategy Implementation Plans* with the results indicators to be achieved in the appropriate period of time for each study year are prepared by the faculty's Dean in cooperation with the heads of the faculty's structural units. The plans are approved by the faculties' Councils.

Strategy Implementation Plans of other structural units are prepared by their heads and approved by the Study or Scientific Council.

STRATEGY IMPLEMENTATION CONTROL

In order to ensure the achievement of the goals of the Development Strategy, the Rector ensures the yearly control of the result indicators determined in the *Strategy Implementation Plans* of the faculties and other structural units.

The achievement of the tasks of the action programme is ensured by the persons responsible for the implementation of the relevant programmes, by summarising the performance of result indicators every year.

Linking the priorities of the Action Programmes determined in the LBTU strategy with the tasks to be implemented:

Action programme priorities	Tasks
Research Programme	
I. Research excellence in the international ecosystem	1. Promotion of international cooperation in areas of strategic specialisation
	2. Promotion of the preparation of scientific publications in journals with a high impact factor
	3. Promotion of competitiveness for attracting scientific workers
	4. Attraction of funding to strategic research areas
II. Transfer of knowledge and technologies	1. Promotion of the commercialisation of intellectual property in the areas of strategic specialisation of LBTU
	2. Development of innovation and entrepreneurial skills of LBTU university staff
Study and Lifelong Learning Programme	
I. Improvement of the education offer	1. Development of LBTU study programmes
	2. Increasing the level of student engagement and satisfaction
	3. Expanding the offer of lifelong learning
I. Promotion of a target cooperation	1. Involvement of cooperation partners in the improvement of studies
	2. Promotion of the internationalisation of education
Management Programme	
I. Improvement of the management system	1. Improvement and digitalisation of management processes
II. Maintenance of properties and improvement of their management efficiency	1. Implementation of infrastructure development projects to improve the research and study environment
	2. Promotion of the sustainability of resources and energy consumption
III. Digitalisation of the research and study environment	1. Improvement of ICT resources and implementation of digital solutions

RESEARCH PROGRAMME

The goal of LBTU's scientific activity is to achieve internationally recognised excellence in the Baltic Sea region and to ensure that research meets the needs and requirements of society, to strengthen LBTU's innovation capacity and to ensure the transfer of knowledge. The National Development Plan of Latvia states that "International cooperation and participation in global science and innovation processes is a precondition for Latvian scientific excellence. It provides access to new knowledge and resources, and strengthens the country's reputation for having reliable, capable research organisations and companies."² LBTU is part of the sustainable development process of Latvia, with the opportunity to be involved in strengthening innovation capacity and ensuring scientific excellence, by offering wide applicability of research results both on a national and international scale.

The Research Programme is based on LBTU's strategic specialisation, vision, mission, assessment of the current situation, future opportunities and challenges.

The medium-term goal of the Research Programme is the successful integration of the University into the international ecosystem of universities and scientific institutions, excellence in research, ensuring the sustainability of the research environment, transfer of knowledge and technologies.

The goal of the Research Programme corresponds to the goals set in the strategic development and planning documents of the EU and Latvia and promotes their achievement, contributes to the implementation of EU and Latvian policies and the achievement of the goals set for them, in accordance with the Guidelines for Science, Technology Development and Innovation of 2021–2027, as well as the implementation programmes of the European Green Deal. As a science university, LBTU creates an ecosystem in the areas of strategic specialisation of the university, providing a unified framework as a set of institutions working purposefully under the direction and supervision of the LBTU.

In accordance with the strategic specialisation of the University, the research directions of each field of specialisation have been determined.

² National Development Plan of Latvia for 2021–2027 p. 30 Available: https://www.pkc.gov.lv/sites/default/files/inlinefiles/20200204_NAP_2021_2027_gala_redakcija_projekts_.pdf

³ Cabinet Order No 246 of 14 April 2021 "On the Guidelines for Science, Technology Development, and Innovation 2021–2027". Available: <https://likumi.lv/ta/id/322468-par-zinatnes-tehnologijas-attistibas-un-inovacijas-pamatnostadnem-2021-2027-gadam>

EUROPEAN GREEN DEAL

Horizon Europe

Cluster 6:

**Food,
bioeconomy,
natural resources,
agriculture and
environment**

Cluster 5:

**Climate,
energy and
mobility**

Cluster 1:

Health

RIS3: Latvian Smart Specialisation Strategy

**Knowledge-intensive
bioeconomy**

**Information and
communication
technologies**

**Smart materials,
technologies and
engineering systems**

Smart energy

**Biomedicine,
medical technology,
biopharmaceuticals**

LBTU strategic specialisation

Biosciences

- Implementation of the “One Health” concept and research on species interactions in the context of climate change.
- Preservation of biological diversity in agricultural and forest biocenosis, ecosystem protection and services.
- Research of resources essential for the bioeconomy (land, soil, water) to ensure sustainable use and reduce pollution.
- Development and adaptation of technologies for the extraction of high-value agricultural and forest products, as well as in veterinary medicine.

Engineering

- Smart materials and products.
- Technologies for sustainable development.
- Innovative solutions for the implementation of circular economy principles.

Social sciences

- Study of the strategic development and socio-economic impact of a knowledge-intensive bioeconomy.
- Exploring the possibilities of sustainable and smart territorial development.
- Competitiveness of environmentally responsible business and the study of societal development interactions.

LBTU's strategic specialisation area in the context of policy planning documents.

Priorities for achieving the set goal:

1. Research excellence, promoting the concentration of nationally and internationally recognised scientific personnel in the strategic specialisation areas of LBTU, and creating the knowledge and skills necessary for the sustainable development of society within the framework of internationally valued research.
2. Development of innovation potential, ensuring the transfer of knowledge and technologies through the ecosystem created by the science university.

I. Research excellence in the international ecosystem

The scientific activity of LBTU is focused on research excellence, emphasising international cooperation and international recognition of LBTU. Successful integration of the university into the international ecosystem of universities and scientific institutions is ensured, where LBTU's innovative research capacity in areas of strategic specialisation is increased as a result of cooperation projects initiated by LBTU.

According to the University's areas of strategic specialisation, LBTU is included in such international ecosystem institutions as the Association for European Life Science Universities, the Baltic Forestry, Veterinary and Agricultural University Network (BOVA) and the Nordic Forestry, Veterinary and Agricultural University Network (NOVA).

LBTU is the leading research partner (centre) of bioeconomy and related industries in Latvia, which ensures cooperation with public and private sector partners. LBTU provides support in the development of research-based policy in LBTU's areas of strategic specialisation, as well as offers innovative research methods for learning current issues in order to positively influence their resolution in the long term. LBTU promotes an interdisciplinary approach to conducting research and more active cooperation of various LBTU structural units, especially in areas of strategic specialisation, ensuring the practical use of results. To promote research excellence, LBTU initiates interdisciplinary research in biosciences, engineering and social sciences with the aim of ensuring synergy and an innovative approach to research.

The goal of LBTU is to strengthen the research capacity, ensuring the implementation of a sustainable and inclusive approach regarding the scientific activity of LBTU. The research capacity is affected both by the possibilities of improving the scientific infrastructure of LBTU (including the implementation of digitalisation and artificial intelligence solutions for the qualitative improvement of research processes), and the capacity of human resources, which will be provided in accordance with the strategy's Management Improvement Programme. To ensure the sustainability of its operations, LBTU invests resources and promotes the growth of academic staff, supporting the implementation of research that affects the processes taking place in society in the long and short term.

The development and availability of an open, secure and interoperable public data infrastructure for the needs of research and innovation is essential for the creation of an effective knowledge and technology transfer system, therefore, according to the "Latvian Open Science Strategy for 2021–2027", LBTU promotes the free availability of scientific publications in green or gold open access without an embargo period.

The following Action Plans will be introduced to ensure the implementation of this priority:

The plan for the participation in EU research and innovation framework programme "Horizon Europe" competitions, as well as in other research and innovation support programmes and technology initiatives;
The plan for the improvement of the quality of international publications, which will provide measures and monitoring of the determined result indicators for the increase in the number of internationally recognised scientific publications in the Scopus and Web of Science databases.

TASKS FOR PRIORITY IMPLEMENTATION

1. Promotion of international cooperation in areas of strategic specialisation

Promotion of the increase in the number of international cooperation projects in the priority research directions in accordance with the strategic specialisation of LBTU. Promotion of participation in international conferences and forums. Improvement of LBTU's project management system and personnel motivation system for project preparation and participation in competitions.

Result indicators	2022	Planned value	
		2025	2027
Number of EU Framework Programme and international fund projects in the implementation stage	31 (2021)	35	40
Number of EU Framework Programme projects that have obtained the minimum required number of points, per year	5 (2021)	6	7

2. Promotion of the preparation of scientific publications in journals with a high impact factor

Increasing the number of internationally recognised scientific publications in journals included in the *Web of Science* and *Scopus* databases, with an impact factor of at least 50% of the industry's average citation index. Increasing the number of scientific publications prepared in cooperation with foreign scientific cooperation partners. Improvement of the motivation and support system for promoting the preparation of scientific publications.

Implementation of incentives for open access publication by including research data management criteria in the evaluation of the performance of scientific personnel. Providing training on open access publishing practices. Ensuring the participation of LBTU in the creation of a unified higher education and science information technology sharing service centre (VPC) of science universities. Ensuring the participation of LBTU in open science activities – in the Dataverse network of scientific data repositories, in the health research cloud *Health Data Space* and in the genome data network GDN.

Result indicators	2022	Planned value	
		2025	2027
Number of scientific publications included in Web of Science or Scopus databases, incl.	335 (2020)	350 (2023)	400 (2025)
• Publications in Q ₁ –Q ₄ quartile editions, number per year (n-2), of which:	192 (2020)	201 (2023)	230 (2025)
Publications in Q ₁ quartile editions, number per year (n-2)	62 (2020)	72 (2023)	90 (2025)
Publications in Q ₂ quartile editions, number per year (n-2)	29 (2020)	32 (2023)	42 (2025)
Number of open access scientific publications included in <i>Web of Science</i> or <i>Scopus</i> databases, per year (n-2)	250 (2020)	270 (2023)	320 (2025)

3. Promotion of competitiveness for attracting scientific workers

Transition to the new Doctoral School model in accordance with the Doctoral School Development Plan. Encouraging the involvement of young scientists in research and innovation by increasing support for doctoral students and post-doctoral fellows. Improvement of the performance-based motivation system for researchers. Attracting external funding for increasing research competencies.

Result indicators	2022	Planned value	
		2025	2027
Elected scientific workers, FTE per year	86 (2021)	90	95
The number of young scientists who work at LBTU (obtained the first scientific qualification in the last 10 years)	78 (2021)	85	90

4. Attraction of funding to strategic research areas

Attracting funding for research projects and technology initiatives that support research in accordance with the areas of strategic specialisation of LBTU in the determined primary developed fields of science. Formulating and presenting an opinion on public policy issues based on research results in areas of strategic specialisation. Implementation of innovative research (regarding issues relevant to various sectors), ensuring the quality of the results of scientific activity. Promotion of cooperation between researchers of different LBTU structural units, involving cooperation partners in conducting interdisciplinary research. Implementation of interdisciplinary research, providing wider opportunities for innovation.

Result indicators	2022	Planned value	
		2025	2027
Funding for scientific activity of LBTU, thousands of EUR per year, VAT inclusive, incl.	6702 (2021)	7085	7763
• Funding for the EU Framework Programme and other international projects	903 (2021)	1047	1290
• Funding for projects financed by the Latvian state budget, obtained through a competition process ⁴	1742 (2021)	1800	1900
• Funding of projects / contract works commissioned by state administration institutions, state and local government companies ⁵	2073 (2021)	2100	2200
• Business (private) funding	441 (2021)	558	683
• Income from the transfer of intellectual property rights	29 (2021)	30	40
• Base funding for scientific activity	1045 (2021)	1050	1100
• Performance funding for results in providing research-based higher education to universities	469 (2021)	500	550

⁴ Funding for research and development projects financed by the Latvian state budget, obtained through competition process, for example, State research programmes, Fundamental and applied research programmes, the "Cooperation" programme

⁵ Contract work with public entities (state, municipality, state university, state scientific institute, state company, e.g. MoA subsidies, contract research)

II. Transfer of knowledge and technologies

The knowledge and technology transfer system and interdisciplinary cooperation contribute to the development of LBTU knowledge, skills and competences in areas of strategic specialisation, increase innovation capacity, stimulate the creation of new competitive and innovative technologies, products and services with higher added value in international markets, promote the introduction of innovations created by the knowledge capital of the University in the national economy, as well as in the public sector, ensuring the increase of business productivity and the improvement of the efficiency of public administration processes to promote the balanced development of Latvia's regions.

The University, based on the science university ecosystem, will promote the innovation ecosystem in the areas of the Smart Specialisation Strategy, becoming a knowledge and innovation centre where scientific research capacity is concentrated and a favourable environment for innovation development and commercialisation of research results are provided. The development of LBTU's areas of strategic specialisation will be ensured by strengthening the research infrastructure and sharing of resources, ensuring open access to the creation of innovations, stimulating the interdisciplinary involvement of students and academic staff in the implementation of research, promoting the circulation of knowledge in cooperation with industry and the commercialisation of research results, incl. innovations of scientists and merchants in ecosystems in the fields of bioeconomy.

To ensure the implementation of this priority, a *Knowledge and Technology Management Plan* will be introduced, which will be developed based on the practices and achievements of the Department of Technology and Knowledge Transfer of LBTU.

TASKS FOR PRIORITY IMPLEMENTATION

1. Promotion of the commercialisation of intellectual property in the areas of strategic specialisation of LBTU

Offering research and scientific competence services of LBTU scientists to entrepreneurs. Regular identification and collection of information on the commercialisation potential of LBTU. Organisation of events promoting the transfer of knowledge. Protection of intellectual property. Complementing the Intellectual Property Policy. Development of the LBTU intellectual property commercialisation algorithm.

Result indicators	2022	Planned value	
		2025	2027
Maintained patents, number, including:	42 (2021)	45	50
• International patents	4 (2021)	5	5
Number of intellectual property licensing agreements	20 (2021)	22	25
Number of selected crop varieties included in the general catalogue of agricultural plant varieties	21	22	22

2. Development of innovation and entrepreneurial skills of LBTU university staff

Development of students' entrepreneurial skills and innovation-creating abilities by offering study courses that promote these skills and abilities, co-creation opportunities, opportunities to participate in projects and business incubators. Ensuring active participation in ecosystem representative organisations or their platforms, ensuring implementation of LBTU's interests, fundraising for innovation co-creation activities and experience

exchange. LBTU's involvement in the development of innovation ecosystems in Latvia, Europe and the world. Creation of the LBTU Student Business Incubator and innovation ecosystem infrastructure, which promotes mutual cooperation among the target groups, as well as transfer of knowledge, creativity and innovation development. Creation of a laboratory of prototyping equipment used for innovation and entrepreneurial activities.

Result indicators	2022	Planned value	
		2025	2027
Proportion of graduates (n-3) who founded companies (n-2), % (centralised data from the State Education Information System, https://www.viis.gov.lv/monitoringa-riki)	10% (2020)	11% (2023)	12% (2025)
Innovation and entrepreneurial competences developed by LBTU staff, number	100	210	320

STUDY AND LIFELONG LEARNING PROGRAMME

As a science university, LBTU provides research-based knowledge acquisition in the defined strategic areas of specialisation: life sciences, engineering and social sciences block. LBTU implements higher education at three levels, implementing a student-centred study process, developing the capacity of academic staff, promoting cooperation and strengthening LBTU's academic competitiveness both in Latvia and at the international level.

LBTU offers students an internationally competitive study environment that provides ample opportunities for improvement and acquisition of new knowledge. LBTU is open to every student – with different social, economic and cultural backgrounds, regardless of the student's age, gender, orientation, ethnicity, religion, special needs or immigration status. LBTU provides an inclusive study environment for students of different generations, motivating them to use higher education opportunities and acquire new knowledge throughout their life.

The medium-term goal of the study and lifelong learning programme – LBTU is a recognised and sought-after provider of higher education services in the international environment, which is able to prepare internationally competitive intellectual potential, especially regarding those areas of the national economy that are included in the Latvian Smart Specialisation Strategy.

Priorities for achieving the set goal:

1. Improvement of the education offer according to the requirements of the economic sectors in the areas of strategic specialisation of the University, increasing the involvement of students and cooperation partners in improving the quality of the study content.
2. Promotion of a target cooperation by improving the education offer, professional development opportunities for academic staff, as well as promoting the visibility and competitiveness of LBTU at both the national and international level. Promotion of the internationalisation of LBTU by promoting cooperation with foreign universities, attracting foreign teaching staff. Promotion of cooperation with industry leading companies by inviting experienced specialists to participate in the development of study programmes, in the study process and lifelong learning services.

I. Improvement of the education offer

LBTU provides higher education and lifelong learning in the fields of science and national economy, in which it has accumulated educational and research competences. LBTU provides higher education services in the current study directions, regularly reviewing and evaluating the compliance of each direction and programme with the demand of the economic sectors and the labour market in Latvia and the Baltics, using modern training methods and technologies. Special attention is paid to the improvement and expansion of the range of study programmes and lifelong learning services that prepare specialists for the bioeconomy sectors included in the Latvian Smart Specialisation Strategy.

To ensure the implementation of this priority, the *Study Programme Development and Consolidation Plan* will be implemented.

TASKS FOR PRIORITY IMPLEMENTATION

1. Development of LBTU study programmes

Improvement of study programmes according to labour market requirements and priorities of LBTU's strategic development goals in order to increase competitiveness in areas of strategic specialisation. Close and active cooperation with industry experts, employers and cooperation partner institutions in order to improve study programmes and ensure the study process. Increasing the level of readiness of LBTU graduates in order to promote competitiveness in the labour market. Provision of support to the academic staff for the digitalisation of the study process and the implementation of innovative solutions/training methods.

Result indicators	2022	Planned value	
		2025	2027
Number of students as of 1 October of the relevant year (excluding doctoral students), including:	3673	3900	4100
• Foreign students	148	310	450
Number of graduates in the relevant study year (excluding doctoral students)	625	650	700
Employment rate of graduates (n-2), % (centralised data from the State Education Information System, https://www.viis.gov.lv/monitoringa-riki)	82% (2020)	85% (2023)	90% (2025)
Income of graduates in the first year after graduation (n-2), EUR per year (centralised data from the State Education Information System, https://www.viis.gov.lv/monitoringa-riki), including:			
• Undergraduate studies	14 470 (2020)	16 000 (2023)	18 000 (2025)
• Master's studies	19 007 (2020)	21 000 (2023)	24 000 (2025)
Income from studies, thousands of EUR, per year, including:			
• State budget funding for studies (excluding scholarships and funding for doctoral studies)	8 553	12 147	12 147
• Funding from individuals or legal entities to ensure the study process	2 176	2 306	2 437

2. Increasing the level of student engagement and satisfaction

Involvement of students in the process of improvement of studies and implementation of innovative solutions. Identifying students' opinions and evaluating proposals for ensuring an inclusive study environment and improving the quality of the study process.

Result indicators	2022	Planned value	
		2025	2027
Study quality evaluation (students' evaluation on a 5-point scale)	4.2	4.3	4.4
Proportion of students who graduated in the planned study period, % of graduates	82%	85%	90%
Students who interrupted their studies, % of the total number of students	25%	22%	20%

3. Expanding the offer of lifelong learning

Expansion and improvement of the training courses/programmes offered within the framework of lifelong learning in accordance with the requirements of the national economy sectors. Attracting lifelong learning students by offering the possibilities of a digitalised learning process.

Result indicators	2022	Planned value	
		2025	2027
Number of trained participants, including:	1400	1600	1800
• LBTU staff	25	60	100
Members of the Open University, number	200	350	400
Revenue from the implementation of lifelong learning programmes, thousands of EUR	250	350	400

II. Promotion of a target cooperation

LBTU, in cooperation with leading national and foreign institutions, employers, their organisations and other cooperation partners in Latvia and abroad, ensures a closer interaction between education and research, promotes the development of the education offer, as well as the compliance of higher education and lifelong learning programmes with the demand of the national economy, especially in the sectors of the national economy included in Latvia's Smart Specialisation Strategy. The development and implementation of programmes that promote the internationalisation of education have a positive effect on the image, recognition and competitiveness of LBTU, both at the national and international level. The expansion of LBTU's international and national cooperation offers new professional development and lifelong learning opportunities for academic staff.

The following Action Plans will be introduced to ensure the implementation of this priority:

- *The target cooperation plan*, the purpose of which is to ensure the cooperation of the University with national and foreign cooperation partners in the field of education;
- *The internationalisation plan*, which defines LBTU's priority areas of international cooperation in studies and the field of lifelong learning, and includes a set of measures for the creation of an effective system to attract foreign students, as well as for expanding opportunities for student and teaching staff mobility by attracting the resources of Erasmus+ and other programmes.

TASKS FOR PRIORITY IMPLEMENTATION

1. Involvement of cooperation partners in the improvement of studies

More active involvement of cooperation partners (experts from the industry and foreign universities) in defining the content of study programmes and evaluating their relevance to the needs of the national economy, incl. providing the necessary environment for the development of bachelor's, master's and doctoral theses, in the development and evaluation of theses, the provision of the study process based on the work environment and the transfer of good practice experience. Maintaining purposeful, long-term, result-oriented cooperation with entrepreneurs and other interested parties in providing internship places for students and improving the professional qualifications of teaching staff. LBTU participation in international cooperation networks (NOVA/BOVA network, etc.).

Result indicators	2022	Planned value	
		2025	2027
Number of study courses conducted or implemented by industry representatives	197	217	237
Number of study courses conducted by LBTU academic staff in international cooperation networks (NOVA/BOVA, etc.)	2	5	10

2. Promotion of the internationalisation of education

Improvement of LBTU study offer in English (new study programmes, internationalisation of existing study programmes, etc.). Evaluation of interests and needs of foreign students and preparation and promotion of appropriate offers in the international environment. Using the opportunities of the European universities initiative in promoting the student and teaching staff mobility.

Result indicators	2022	Planned value	
		2025	2027
Number of study programmes conducted in English	11	12	13
Tuition fees paid by foreign students, thousands of EUR, per year	875	908	937
Student mobility, number, including:			
• Incoming mobility	81	90	100
• Outgoing mobility	134	150	170
Teaching staff mobility, number, including:			
• Incoming teaching staff mobility	26	30	40
• Outgoing teaching staff mobility	96	110	120
• Number of foreign guest lecturers who have lecturing contracts with LBTU	10	15	20

MANAGEMENT PROGRAMME

Opportunities for improvement of LBTU management are closely related to ensuring sustainable, diverse, inclusive, open and responsible operation of the University. The Management Improvement Programme is based on the vision and mission of LBTU, the assessment of the current situation, future opportunities and challenges, as well as the need to improve operations in order to promote the achievement of the goals and results set in the Research and Study and Lifelong Learning programmes. Ensuring a competitive research and study environment is the main goal of the Management Programme, which includes both the improvement of the management efficiency of the research and development system and the investments necessary for a high-quality study process and an inclusive study environment.

The medium-term goal of the Management Programme is effective and modern institutional management – targeted and efficient use of resources, high-quality studies and excellence in research.

Priorities for achieving the set goal:

1. Improvement of the management system, which includes effective financial management, optimal operation of the administration, sustainable human resources management, communication and marketing. Strengthening and expanding the ecosystem of the LBTU Science University.
2. Effective property management to ensure a high-quality research and study environment, while reducing the negative impact on the environment by implementing responsible management and sustainability principles.
3. Digitalisation of the research and study environment by improving ICT resources and implementing digital solutions in order to reduce the administrative and bureaucratic burden on LBTU staff, create a modern study environment and provide innovative technological opportunities for the research process.

I. Improvement of the management system

In order to implement the goals of the science university and the principles of autonomy of the university, taking responsibility for the quality of the scientific activity performed and the education obtained, the observance of the principles of democracy, the purposeful and rational use of financial and material resources, the University will ensure the strengthening and expansion of the ecosystem, develop an appropriate management model of LBTU, implemented by motivated academic staff, as well as staff providing efficient and modern support services.

TASKS FOR PRIORITY IMPLEMENTATION

1. Improvement and digitalisation of management processes

Implementation of the principles of good management, ensuring the transparency of LBTU's operation, responsibility for the use of financial resources and the development of human resources. Development and implementation of the new management model, development and updating of appropriate management documents. Creation of management institutions and ensuring their operation. Development of LBTU's Academic Integrity Policy, Staff Policy, Sustainability Policy and Risk Management Policy. Development of gender equality policy and implementation of measures to promote awareness on equality issues. Development of a communication and marketing plan, determining the range of priority topics for expressing the opinions of LBTU experts in the media, increasing the recognition of LBTU as a science university and the public's un-

derstanding of the study process and research activities carried out by LBTU and its results. Maintenance and improvement of the quality and risk management system.

Developing the digital and data management skills of academic and administrative staff. Modernisation of LBTU IS. Regular renewal of IT equipment and devices, implementation of the latest software, integration of IT systems according to the latest technological solutions.

Result indicators	2022	Planned value	
		2025	2027
LBTU's place in the <i>Times Higher Education Impact</i> rankings (sustainability)	601-800	601-800	601-800
Proportion of the administrative and economic staff as of 1 October of the relevant year, %	24%	23%	22%
Share of electronic documents in the number of documents registered in document management systems, %	65%	80%	95%

II. Maintenance of properties and improvement of their management efficiency

The task of LBTU is the effective management of real estate in order to ensure a quality research and study environment, while at the same time reducing the negative impact on the environment, implementing the principles of the Green Economy, accordingly ensuring the sustainable management of real estate (including evaluating the possibilities of using buildings, ensuring the sustainability of management resources, reviewing water and energy supply solutions). LBTU will continue to implement measures to ensure the promotion of environmental sustainability, recognising good practices in this matter in both the private and public sectors.

LBTU participates in the preservation of cultural and historical heritage and acts responsibly. It requires specific expertise and long-term investment, while providing unique added value to society.

In order to ensure the effectiveness of real estate management, a *Real Estate Development Plan* will be introduced, which will ensure the implementation of the real estate management model, monitoring and updating the execution of the set tasks.

TASKS FOR PRIORITY IMPLEMENTATION

1. Implementation of infrastructure development projects to improve the research and study environment

Increasing the proportion of energy-efficient buildings, increasing other types of energy efficiency in LBTU premises and territories. Improvement of building fire protection systems. Creation and improvement of the building access and accessibility system, promotion of micromobility. Modernisation and management of service hotels. Improvement of the research and study environment. Improvement of the outside study environment (including improvement of rest rooms, food preparation rooms).

Result indicators	2022	Planned value	
		2025	2027
Ensured environmental accessibility for people with special needs in research and study facilities, %	82%	88%	100%
Energy-efficient LBTU research and study infrastructure facilities, %	50%	55%	60%
The working conditions of the employees can be assessed as good (rating of the LBTU employee survey on a 5-point scale), points	3.84	4.00	4.10

2. Promotion of the sustainability of resources and energy consumption

Ensuring responsible sorting of waste in LBTU study and research facilities. Responsible disposal of ICT devices. Responsible and economical use of water resources. Gradual transition to energy-efficient solutions regarding electricity supply (energy-efficient bulbs and sensors). Promotion of the installation of heat meters for the assessment of energy savings. Promotion of the installation of solar batteries, ensuring monitoring of energy consumption. Providing energy-independent solutions for LBTU's critical infrastructure.

Result indicators	2022	Planned value	
		2025	2027
Changing the type of heat production in LBTU research and study infrastructure facilities from fossil to renewable, %	0% (2021)	80% (2024)	100% (2026)
Electricity consumption in LBTU research and study infrastructure facilities, MWh per year	3410 (2021)	3239 (-5%) (2024)	3069 (-10%) (2026)
Heat energy consumption in LBTU research and study infrastructure facilities, MWh per year	15 407 (2021)	13 866 (-10%) (2024)	13 096 (-15%) (2026)
Introduction of solar energy sources to reduce costs of energy resources, number of objects	-	2 (2024)	3 (2026)

III. Digitalisation of the research and study environment

By continuing the development of smart ICT resources meeting future requirements, it is planned to minimise the administrative and bureaucratic burden for the scientific and academic staff, creating a more modern study environment and providing innovative technological opportunities for the research process. Targeted and full-fledged use of solutions offered by digital technologies for the optimisation of management of personnel, knowledge, financial resources and real estate contributes to LBTU's competitiveness and allows ensuring a more targeted investment of human resources in LBTU's research and study processes. Therefore, LBTU continuously identifies and implements opportunities for digital improvement, adjusting the proposed solutions to LBTU's needs.

To ensure centralised IT management, the *Digitalisation Management Development Plan* will be implemented, which will ensure the implementation of the centralised IT management model, monitoring and updating the execution of the specified tasks.

TASKS FOR PRIORITY IMPLEMENTATION

Improvement of ICT resources and implementation of digital solutions

Creation and implementation of a monitoring system for strengthening the learning of the digital competence areas of the LBTU staff in accordance with the Digital Competence Framework for Citizens (DigComp) at the 5th learning level at the least. Implementation of the principle of using open type software in the research and study process of LBTU. Improvement of the unified conference platform. Development of a platform for e-journals and conference materials. Further development and improvement of the research application system as an electronic service, expanding the availability of the research equipment at the scientific laboratories and the intellectual potential of the LBTU staff for conducting scientific research in Latvia and abroad. Improving the long-term accumulation and use of research data to ensure the successful integration of LBTU research results in open science repositories (*Dataverse, Health Data Space, genome data network GDN, etc.*), as well as to ensure the traceability and reliability of research data. Increasing the number of meteorological stations and performing calibration to ensure the traceability and reliability of research data. Ensuring the availability of digital databases of the LBTU Fundamental Library, developing the LBTU repository, providing digital services to LBTU scientists, performing bibliometrics and managing references. Implementation of the BYOD (*Bring your own device*) principle in the LBTU study process. Integration of the eduGAIN connection of faculty and student mobility infrastructure in LBTU systems, which is available within the framework of the higher education and science information technology sharing service centre. *DreamApply* system maintenance and data exchange for the administration of the study process of full-time foreign students. Implementation of new digital solutions for the administration of the Erasmus+ exchange study process. Implementation of digital solutions to promote the use of innovative study methods by setting up hybrid audiences. Use of the capacity of the Latvian academic core network for the creation of mutual communication digital platforms. Involvement of new partners in the Latvian academic network (Malnavas koledža).

Result indicators	2022	Planned value	
		2025	2027
Participation in open data and science repositories, number	1	2	3
Journals and collections of articles on the e-platform, number	3	4	5
Number of users of digitally available databases in the Fundamental Library of LBTU	15 000	16 000	17 000
Implementation of hybrid learning principles in study courses, number of study courses	-	35	40
Development of inter-university hybrid audience network, number	-	3	4
Implementation of the use of open access (free) software in study courses, number of study courses	32	50	75