Daugavpils University

"Development of the Development Strategy of Daugavpils University for 2022-2028"

Agreement No 4-64/2023-03/01

KPMG Baltics Ltd.

June 2023

Final document of the Development Strategy

Designations and abbreviations

AY	Academic year
CM	RL Cabinet of Ministers, CM regulations
CoA	Courses of action
COST	International cooperation programs
CSB	Central Statistical Bureau
DTG 2027	Digital Transformation Guidelines 2021-2027
DU 2020	Daugavpils University Strategy for 2015-2020
DU 2028	Daugavpils University Strategy for 2022-2028
ECHE	Erasmus Charter for Higher Education
EDG 2027	Education Development Guidelines 2021-2027
EFSI	European Fund for Strategic Investments
ERA-NET	European Research Area Network
ERDF	European Regional Development Fund
EU	European Union
EUA	European University Association
FARP	Fundamental and Applied Research Projects
FTE	Full-time equivalent (in working time account)
GSTDI 2027	Guidelines for Science, Technology Development, and Innovation 2021-2027
HEI	Higher education institution
ICT	Information and Communication Technology
IESIA	International Evaluation of Scientific Institutions' Activity
IHSS	Institute of Humanities and Social Sciences
ILST	Institute of Life Sciences and Technology
ISO	Organization for Standardization
KDG	Key Development Goals
KETs	Key Enabling Technologies
KPMG	“KPMG Baltics SIA” Ltd.
LBTU	Latvia University of Life Sciences and Technologies
LCS	Latvian Council of Science
LiepU	Liepaja University
LPR	Latgale Planning Region
LU	University of Latvia
MoES	Ministry of Education and Science
MoSARD	Ministry of Smart Administration and Regional Development
NDP 2027	National Development Plan of Latvia for 2021-2027
OECD	Organisation for Economic Cooperation and Development
OSP	Official Statistics Portal
PSC	Psychological Support Centre
RAT	Rezekne Academy of Technologies
RIS3	Research and Innovation Strategy for Smart Specialization
RL	Republic of Latvia
RRP	Latvia’s Recovery and Resilience Plan 2021-2026
RSS	Rural Support Service
RSU	Riga Stradiņš University
RTU	Riga Technical University
SRP	State Research Programme
STEM	Science, Technology, Engineering and Mathematics
SWOT	Strengths, Weaknesses, Opportunities, Threats
THE	Times Higher Education World University Ratings
TOWS	Threats, Opportunities, Weaknesses, Strengths
UN	United Nations
ViA	Vidzeme University of Applied Sciences

VIAA	State Education Development Agency
VIP	Vertically Integrated Project
VUAS	Ventspils University of Applied Sciences
WoS	Web of Science

Content

Introduction

Daugavpils University (hereinafter – DU) is an educational and scientific institution with a vision to become a Baltic-wide centre of excellence in strategic specialization areas with the status of a university of science and to provide an ecosystem for knowledge and technology transfer.

The DU Development Strategy for 2022-2028 (hereinafter – DU 2028, Strategy) is a medium-term plan that determines the key development goals, tasks and measures to be implemented to achieve each set goal and the main DU 2028 impact and performance indicators in accordance with the defined vision, mission and values.

Objective and tasks

Considering the overall positive role of strategic planning in the development of any organization and the fact that the previous strategy of DU was valid from 2015 to 2022, DU needs to develop a new medium-term development strategy for 2022 to 2028, outlining priority areas of activity and their implementation plan.

Therefore, DU partnered with “KPMG Baltics SIA” Ltd. (hereinafter – KPMG) based on a procurement agreement concluded on 6 March 2023. In the period until 5 June 2023, a data-based and stakeholder-based analysis of the strengths, weaknesses, opportunities and threats (hereinafter – SWOT) of the current situation of DU was developed, an analysis of the DU operational framework and development perspective was conducted, the DU mission statement was clarified, the key development goals of DU were set for a period until 2028, as well as an implementation plan was developed and performance indicators were determined for measuring the impact and results of DU 2028 in coordination with the DU management and DU Council.

The objective was achieved by completing three stages and seven tasks, which resulted in preparation of the final document of DU 2028.

Figure 1. DU 2028 development framework based on the technical specifications of procurement

DU mission, vision, values and key development goals

The mission, vision and key development goals of the DU Strategy 2022-2028 are based on the following key principles – the development of education, science, governance, cooperation, infrastructure and internationalization. The priority of education, science and governance is reflected by defining three key development goals corresponding to them, while cooperation, infrastructure and internationalization are cross-cutting topics included in the courses of action and measures resulting from the goals. Courses of action have been defined for each of the three key development goals, which are further described in detail regarding more specific measures in section 7.2. Implementation Plan of the DU 2028.

DU Mission					
The mission of Daugavpils University is to promote the development of a sustainable future society by conducting international-level scientific research and providing high-quality education in the fields of natural sciences, social sciences, humanities and arts, promoting a sustainable development of Latgale Region and Latvia through its activities.					
DU Vision					
Daugavpils University is a Baltic-wide centre of excellence in strategic specialization areas with the status of a university of science and provides an ecosystem for knowledge and technology transfer.					
DU values					
People	Collaboration	Academic integrity and freedom	Equal opportunities and diversity	Excellence	Sustainability
DU key development goals until 2028					

G1: Educational provision based in a modern and digital environment that is implemented throughout life and is in line with the demands of society and industry	G2: Research based on long-term cooperations resulting in high-quality results internationally and a positive impact on Latgale Region	G3: An independent cooperation partner with a good reputation both internally and externally
DU courses of action until 2028		
CoA1: Developing educational provision for the needs of society	CoA1: Promoting excellence in scientific results	CoA1: Promoting financial sustainability
CoA2: Improving study programs for student-centred education	CoA2: Developing research governance	CoA2: Building a positive external image
CoA3: Improving digital technology and digital skills	CoA3: Developing impact on the social and economic environment of Latgale and Sēlija region	CoA3: Attracting and retaining talent
CoA4: Promoting internationalisation and local cooperation	CoA4: Improving international cooperation and partnerships	CoA4: Modernization of institutional governance
		CoA5: Promoting infrastructure development and resilience

General information about Daugavpils University

DU is a derived public entity founded by the State and it acts as an autonomous self-governing institution. Its activities are described in the Law on Higher Education Institutions, the Law on Scientific Activity and other regulations of the Republic of Latvia (hereinafter – RL), as well as in the DU Constitution, its current edition being approved at the meeting of the DU Constitutional Assembly on 17 June 2022[1]. DU is registered in the National Register of Research Institutions on 23 January 2006 with No 172040.

The origins of DU date back to November 1921, when a pedagogical school was opened in Daugavpils in an independent Latvia. The Pedagogical School was later renamed Teachers' Seminary, then it became the Teachers Institute, which in 1952 was reorganized as a higher education institution – Daugavpils Pedagogical Institute. It, in turn, was reorganized in 1993 as Daugavpils Pedagogical University. On 5 March 2001, the DU Constitutional Assembly adopted the DU Constitution. DU is a higher education and science institution that implements academic and professional study programs, conducts scientific activities and promotes artistic creativity.

According to the typology of higher education institutions adopted by the Republic of Latvia on 4 March 2020, DU is a university of applied sciences[2]. Based on the DU Constitution, DU[1]:

- is a higher education, research and cultural institution that implements higher education programs at the bachelor's, master's and doctorate levels in accordance with higher education standards;
- ensures high-quality studies and scientific research as per the modern standard, creating an intellectual base for a harmonious development of the region;
- organizes its work in the interests of society, informs the public about its activities, about the fields of studies and scientific research and opportunities, offers the public the scientific, artistic and professional knowledge, methods and research results;
- creates prerequisites for conducting scientific research and obtaining a scientific degree;
- trains young scientists, gives scientists the opportunity to join the international community.

To ensure the excellence and development of higher education, the government approved in 2022 strategic specialization of state universities, based on the research

[1] DAUGAVPILS UNIVERSITĀTES SATVERSME (*Constitution of Daugavpils University*), DU, 2022, retrieved from: Daugavpils Universitātes Satversme
[2] MK rīkojums, Par koncepтuālo ziņojumu "Par augstskolu iekšējās pārvaldības modeļa maiņu" (*Cabinet Order, On the Conceptual Report "On Changing the Internal Governance Model of Higher Education Institutions*"), LR MK 2020, retrieved from: Par koncepтuālo ziņojumu "Par augstskolu iekšējās pārvaldības modeļa maiņu" (likumi.lv)

and study results of universities, as well as university development plans[3]. The strategic specializations of DU are humanities and arts, social sciences, and natural sciences[4].

The objectives of DU are[5]:

- To develop study, research and lifelong learning programs that, in accordance with the requirements of the labour market, ensure the human resources necessary for the future development of the economy, the state and society, as well as to promote the growth of persons involved in the educational process into enterprising, creative, responsible and competitive members of society.

- To conduct applied research, as well as to ensure the transfer of knowledge and technology in relevant sectors of the economy through innovations and lifelong learning process, promoting the ability to dynamically adapt to changes in the external environment.

DU is one of the best higher education institutions in Latvia and the leading institution in Latgale Region, as evidenced by various international rankings. The most current results at the time of DU 2028 development are:

- In the QS University Rankings' section "Emerging Europe and Central Asia", DU is ranked between 241st and 250th in 2022, as is Latvia University of Life Sciences and Technologies (hereinafter – LBTU). Among Latvian universities, the best results are shown by the University of Latvia (hereinafter – LU) (40th place among universities in the region), Riga Technical University (hereinafter – RTU) (47th place) and Riga Stradiņš University (hereinafter – RSU) (119th place)[6]. Among the evaluation criteria, DU has the best results in academic reputation (15.5), which is based on surveys completed by hundred thousand academic experts to study the research excellence of other universities[7] and in the ratio of academic staff to students (52.5)[8];

- In the U-Multirank rating, DU ranks 4th in Latvia in 2022. The U-Multirank assessment profile highlights research as DU's strongest competency (both the number of research publications per student and interdisciplinary publications reflect the degree to which DU's publication sources reflect publications cited in journals of different scientific disciplines)[9];

[3] Likumi.lv: Grozījumi augstskolu likumā, 2021, retrieved: Grozījumi Augstskolu likumā (likumi.lv) (*Amendments to the Law on Higher Education Institutions*)
[4] MK rīkojums, Par valsts augstskolu stratēģisko specializāciju, LR MK, 2022, retrieved:: Par valsts augstskolu stratēģisko specializāciju (likumi.lv) (*Cabinet Order, On the strategic specialization of state higher education institutions*)
[5] Augstskolu likums (likumi.lv) (*Law on Higher Education Institutions*)
[6] Top Universities ranking EECA 2022: https://www.topuniversities.com/university-rankings/eeca-rankings/2022
[7] Understanding the Methodology: QS World University Rankings, 2021, retrieved: Top Universities
[8] Top Universities: Daugavpils University https://www.topuniversities.com/universities/daugavpils-university
[9] U-Multirank 2022: Daugavpils University: https://www.umultirank.org/study-at/daugavpils-university-rankings/

- In the SCImago Institutions Rankings 2023, DU ranked first among Latvian universities in the fields of Environmental Science and Psychology and fourth in the fields of Agricultural and Biological Sciences, as well as Social Sciences[10].

The results of the monitoring of higher education institutions' graduates conducted by Latvia's Ministry of Education and Science show that DU is in the fifth place in terms of the number of graduates among Latvian higher education institutions. The employment rate of DU graduates in 2020 (for 2019 graduates) is 81.9% (the national average is 82.4%). A relatively low proportion of employed DU graduates work in highly qualified professions (77.4% DU, 81.3% nationally in 2020) and their average income in 2020 was lower than the national average (11 628 EUR DU, 17 338 EUR nationally in 2020).[11]

DU's contribution to the economy consists of graduate bonuses (the increase in salary received by an employee with higher education compared to an employee with a lower level of education), student expenses, institutional expenses, research, and expenses of foreign guests It is estimated that DU's contribution to the economy reached 229 million euros in 2020. In comparison, the contribution of Rezekne Academy of Technologies in 2020 was 89.5 million euros in 2020.[12]

DU complies with the ISO 9001 quality standard in the implementation of its study quality management system. Compliance with this standard confirms that DU cares about the quality of its educational services by maintaining a quality management system (hereinafter – QMS), periodically undergoing accreditation and certifying the effectiveness of the system. QMS confirms that DU strives to find out the needs of current and potential students, to maintain consistently good quality of studies and governance and to ensure consistency and transparency in processes, as well as to constantly improve cooperation with cooperation partners and the public.[13]

In 2018-2022, DU implemented ESF project "Improvement of Daugavpils University Governance and Management Competencies" (No. 8.2.3.0/18/A/010) to align DU study and governance quality systems. The goal of the project was to improve the quality of DU study program content, to ensure a better governance of the university, and to improve the competencies and skills of management staff. It is important for DU to ensure the quality of education that meets the needs of Latvian economy and society, to improve DU governance in accordance with international quality standards, to strengthen strategic specialization, to promote an effective implementation of study programs and study fields that are based on competencies and are student-centred, as well as to promote cooperation with employers. In order to facilitate the solution to the needs and

[10] SC Imago institution ranking 2023: Daugavpils University Daugavpils University Ranking (scimagoir.com)
[11] VIIS, Augstākās izglītības iestāžu absolventu darba gaitas 2020. gadā (*Career prospects of graduates of higher education institutions in 2020*), retrieved: https://www.viis.gov.lv/dati/absolventu-monitorings-2022gada-publikacijas
[12] Zeps, Artūrs. Augstskolas ieguldījums tautsaimniecībā un ieguldījuma pilnveides iespējas (*The contribution of higher education institutions to the national economy and opportunities for improving their contribution*). Presented on 4 December 2021, recording is retrieved: https://lpr.gov.lv/lv/2021/latgales-pievienota-vertiba-cilveki-un-latgaliskums-turismainovacija-augstakaja-izglitiba/
[13] Pašnovērtējuma ziņojums (*Self-reflection report*), retrieved: https://du.lv/wp-content/uploads/2022/01/Vadiba_administresana_un_nekustamo_ipasumu_parvaldiba_2020_2021.pdf

issues mentioned above, a detailed Change Management and Implementation Plan for the modernization of the study program offer was developed within the framework of the project, DU governance structure was improved, an internal quality management system and e-solutions were introduced, and the competencies of management staff were improved.[14]

The guiding principles for internal operations at DU are defined in the Code of Ethics for Employees and Students, approved by DU Senate and monitored by DU Ethics Commission. The second chapter of the document sets out general guiding ethical principles. DU employees and students adhere to the following general guiding ethical principles, as set out in the second chapter of the Code[15]:

2.1.1. integrity:

- employees' and students' actions are based on the desire to improve the education and scientific fields through their work;
- employees and students perform their duties honestly, respecting the equality of persons before the law, they are not discriminatory, and they do not use the advantages and power of their position for personal gain or for the gain of another person;
- employees and students make decisions in the interests of the state and society;

2.1.2. fairness:

- employees and students act fairly, respecting the equality of persons before the law, without showing favouritism or unjustified privileges to any of them;
- employees and students do not use the information received as a result of their professional activities in their own interests;
- employees and students refrain from holding more than one job, as well as from side jobs that may raise suspicions of an apparent or real conflict of interest;

2.1.3. confidentiality:

- employees and students maintain confidentiality regarding information that has come into their possession while performing the duties of their job or studies;
- employees and students do not use the obtained information for any personal gain;

2.1.4. respect and collegiality:

[14] Daugavpils Universitāte https://du.lv/project/daugavpils-universitates-parvaldibas-un-vadibas-kompetencu-pilnveidosana/
[15] Daugavpils Universitātes Ētikas Kodekss (*Code of Ethics of Daugavpils University*): https://du.lv/wp-content/uploads/2021/12/Etikas-kodekss.pdf

- the relationship between employees and students is based on respect, helpfulness, cooperation, trust and support;

- employees and students are aware that their behaviour and actions create the overall image of DU;

2.1.5. responsibility:

- employees and students perform their duties responsibly, using their knowledge, skills, abilities and experience to achieve the best results;

- employees and students are aware of the consequences of their actions or inaction.

The Internal Quality Assurance Policy for Studies at DU is aimed at implementing the vision and mission of DU, sustainable development, and achieving strategic goals. It is developed in accordance with the Standards and Guidelines for Quality Assurance in the European Higher Education Area and the European Foundation for Quality Management Excellence Model. The institution's Policy and related regulations are based on the guiding principles defined in this document[16]:

- **strategic improvement of study quality** – information provided by stakeholders on study quality indicators and achievable results to be included in the DU strategy, as well as the study quality improvement plan to be developed;
- **culture of excellence** – responsibility of academic staff, general staff and students for study quality, engaging in quality assurance at all levels of the DU organization;
- **stakeholder involvement** – involvement of academic staff, general staff, students, graduates and employers in ensuring study quality and improving the quality management system of studies, observing the guiding principles of transparency, responsibility, ethics and trust;
- **value of sustainable studies** – DU has defined the value of its sustainable studies and has informed all involved stakeholders, integrating it into study programs;
- **study quality and change management** – DU has defined the competencies of persons involved in study quality management, ensuring targeted study quality improvement, as well as defined the development of study quality management in strategic documents;
- **stakeholder assessments** – to improve study quality management, study programs are licensed and accredited, involving external stakeholders in the preparation for accreditation and licencing;
- **evaluation of strategic and daily performance results** – DU defines activities, indicators, and achievable results to determine the dynamics of study quality management development.

[16] Daugavpils Universitātes Studiju iekšējās kvalitātes nodrošināšanas politika (*The Internal Quality Assurance Policy for Studies at DU*), retrieved: https://old.du.lv/wp-content/uploads/2021/08/DU_studiju_ieksejas_kvalitates_nodrosinasanas_politika.pdf

General information about Daugavpils University in the field of science

DU researchers conduct not only fundamental but also applied research. DU has equal cooperation with state institutions, municipalities, businesses, as well as other scientific institutions, providing scientific services. A total of 27 doctoral theses were defended at DU from 2017 to 2023, while the number of doctoral students has been stable – 10 doctoral students in 2017, and 9 in 2022.[101]

In the International Evaluation of Scientific Institutions' Activity (hereinafter – IESIA) in Latvia, the international performance of DU was overall assessed as good. Challenges were identified in the development potential, impact on the field of science and economy.[95]

IESIA shows that DU has an excellent development potential in the field of literature and art with regional studies, development of border area, multiculturalism and oral history being particularly highly rated. DU's platform of regional studies, literature and art was given a rating of "four". DU's biology research program and educational science, psychology, economics and law science research programs were each rated with a rating of "three". DU's agency "Latvian Institute of Aquatic Ecology" also received a "three", whereas DU's mathematics, physics and chemistry platform was rated with the lowest rating – "one".[17]

In this assessment, specific niche areas within each strategic specialization area were identified for DU, ensuring internationally recognized research quality (Table 1).

Table 1. DU research niche areas with internationally recognized research quality in line with strategic specialization areas (Source: International Evaluation of Scientific Institutions' Activity, 2019)

Strategic specialization areas	Niche areas with internationally recognized research quality
Humanities and Arts	• Regional Studies, Literature and Art • Development of Border Area • Multiculturalism • Oral History
Natural Sciences	• Entomology • Biosystematics • Ecology • Parasitology • Nanotechnology

[17] TAP Portāls: Izglītības un zinātnes ministrijas MK ziņojums (*Report of Ministry of Education and Science for the Cabinet of Ministers*)

	• Aquaculture • Botany
Social sciences	• Sustainable Education • Regional Economics, Sociology, Security

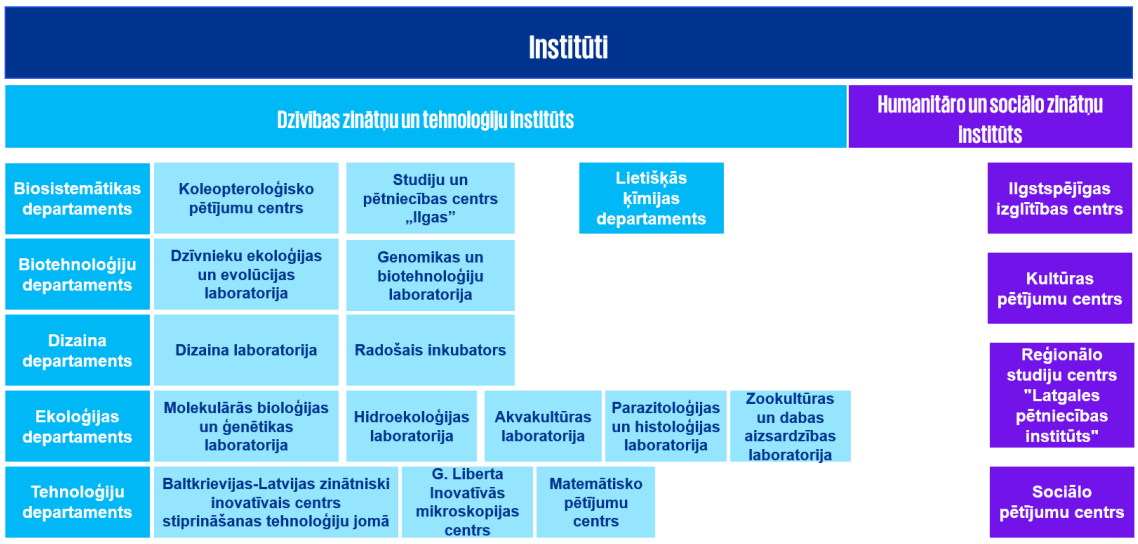
The main recommendations from IESIA regarding the evaluated research programs are[95]:

- promote international cooperation and networking,
- improve the quality and impact of research, strengthen institutional support and structure,
- expand cooperation with external partners.

Considering the low rating of the mathematics, physics and chemistry program, it is necessary to consolidate it internally with other platforms, such as natural sciences.[95]

Scientific activity at the time of development of DU 2028 is divided between two institutes: Institute of Life Sciences and Technology (hereinafter – ILST) and Institute of Humanities and Social Sciences (hereinafter – IHSS). Scientific activity of ILST is organized in six departments and most of them have research centres and laboratories (14 in total). IHSS scientific activity is organized in four structural units (Figure 2).

Figure 2. DU scientific structural units (Source: DU)[18]



[18] DU institūti (*Institutes of DU*), DU mājaslapa (*DU website*), retrieved from: Institūti > Daugavpils Universitāte (du.lv)

At the time of development of DU 2028, the following scientific structural units exist in the field of strategic specialization of Humanities and Arts:

The Centre of Regional Studies "Latgale Research Institute" conducts research on Latgale Region. The centre's activities are focused on the theory of historical sources and source research methodology, as well as the introduction of historical informatics or "digital history" in Latvia. Regional research corresponds to the modern paradigm in world history research and is concentrated in several directions: conducting research in the theory and methodology of historical regionalism, academic research on the history of Latgale Region, historiography of Latgale and Latvia, creation of databases on the history of Latgale.[19]

The Centre of Cultural Research conducts comparative research on transformation and interaction of cultural processes. Through national and international cooperation, competitive interdisciplinary research on the specificities of literature, language, history and culture is conducted within the framework of the research programme "Regional Studies, Literature and the Arts". The centre's staff is involved in the implementation of EU research programmes and other international and national projects and develops modern solutions for the identification, preservation and promotion of cultural heritage, cooperates with the non-governmental sector, and provides science transfer activities.[20].

At the time of development of DU 2028, the following scientific structural units exist in the field of strategic specialization of Social Sciences:

The Centre of Social Research conducts scientific research in sociology, social psychology, law, economics and management at the international, national and regional levels. The centre provides services in the processing of quantitative research data in the SPSS computer program, in the implementation of social science research or its individual stages (program development, data collection, data processing, etc.). Researchers provide consultations in marketing research, company customer surveys, business plan development and market research.[21]

The Centre of Sustainable Education implements scientific, academic, science transfer activities and international cooperation to promote the reorientation of education towards the goal of sustainable development and research of sustainable teacher education. The centre conducts research on various issues in the field of education, for example, the implementation of competency-based education in teacher education, research into the professional identity of teachers, career education, formal and non-formal youth education.[22]

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[19] Reģionālo studiju centrs „Latgales pētniecības institūts" (*The Centre of Regional Studies "Latgale Research Institute"*), DU, retrieved from: https://du.lv/zinatne/instituti/humanitaro-un-socialo-zinatnu-instituts/strukturvienibas/regionalo-studiju-centrs-latgales-petniecibas-instituts/

[20] Kultūras pētījumu centrs (*The Centre of Cultural Research*), DU, retrieved from: https://du.lv/zinatne/instituti/humanitaro-un-socialo-zinatnu-instituts/strukturvienibas/kulturas-petijumu-centrs/

[21] Sociālo pētījumu centrs (*The Centre of Social Research*), DU, retrieved from: https://du.lv/zinatne/instituti/humanitaro-un-socialo-zinatnu-instituts/strukturvienibas/socialo-petijumu-centrs/

[22] Ilgtspējīgas izglītības centrs (*The Centre of Sustainable Education*), DU, retrieved from: https://du.lv/zinatne/instituti/humanitaro-un-socialo-zinatnu-instituts/strukturvienibas/ilgtspejigas-izglitibas-centrs/

At the time of development of DU 2028, the following scientific structural units exist in the field of strategic specialization of Natural Sciences:
Department of Biosystematics and its structural units[23]:

- Study and Research Centre "Ilgas" of Daugavpils University has become one of the most modern study bases in Eastern Europe after a large-scale renovation works, where students of bachelor's, master's and doctoral study programs "Biology" of DU learn modern applicable methods of research of living organisms under field conditions and gain knowledge about representatives of different taxonomic groups characteristic for Latvian flora and fauna, as well as rare and protected members, within the framework of the field practice. The building houses a modern complex of training and scientific laboratories, where students can conduct research using the most modern equipment, the latest technologies, as well as scientific collection rooms.
- The laboratories of the Coleopterological Research Centre are in the centre "Ilgas". The Coleopterological Research Centre conducts research on the systematics, taxonomy, morphology, fauna and biogeography of beetles. The centre regularly organizes expeditions in Latvia and abroad. The scientific journal "Baltic Journal of Coleopterology" indexed in international databases is published in The Coleopterological Research Center, the World Beetle Collection is established, and the databases of Ground beetles world fauna (www.carabidae.pro) and Longhorn beetles world fauna (www.cerambycidae.org) are maintained.
- "Ilgas" also houses the Forest Biodiversity Research Centre with the following laboratories:
    - Botany Laboratory,
    - Zoology Laboratory,
    - Forest Biodiversity Laboratory.

Department of Biotechnology and its structural units[24]:

- Animal Ecology and Evolution Laboratory. The laboratory studies processes that influence the ability of living organisms to adapt to changing environments. Research activities are related to individual variations in behavioural and immunological responses and population regulation.
- Genomics and Biotechnology Laboratory. The laboratory conducts research in genetics, biotechnology, molecular biology and molecular systematics. The laboratory is equipped with modern equipment, including a gene analyser, flow

[23] Biosistemātikas departaments (*Department of Biosystematics*), Daugavpils Universitāte, retrieved from: https://du.lv/zinatne/instituti/dzivibas-zinatnu-un-tehnologiju-instituts/strukturvienibas/biosistematikas-departaments/
[24] Biotehnoloģiju departaments (*Department of Biotechnology*), DU, retrieved from: https://du.lv/zinatne/instituti/dzivibas-zinatnu-un-tehnologiju-instituts/strukturvienibas/biotehnologiju-departaments/

cytometer, PCR, RT-PCR, DNA/RNA isolation robot, etc.

Department of Ecology and its structural units[25]:

- Aquaculture Laboratory. For many years, laboratory scientists study the ecology of fish and crustacean species cultivated in Latvia in natural and artificial water bodies, recirculation systems, developing innovative technologies for improving the added value of aquaculture and production, methods for the use of aquaculture by-products, introduction of new species in Latvian aquaculture, successfully implement applied research projects in cooperation with leading Latvian aquaculture companies and world scientists.
- Hydrobiology laboratory. The laboratory conducts functional and structural studies of freshwater ecosystems under the influence of various environmental factors, using both field methods (physical-chemical and acoustic analysis of instrumental water parameters, hydrobiont sampling) and laboratory methods (microscopy, chemical analysis of water parameters, molecular and biochemical techniques).
- Molecular Biology and Genetics laboratory. Studies of cell stress, cell programmed dead passages and cell memory molecular biological, physiological, genetic and epigenetic processes. The latest study methods are used, including pyrosequencing and Raman spectroscopy. Studies on the recovery and sustainable exploitation of wild population resources are being conducted in the development of methods for genetic and epigenetic monitoring of populations of wild, introduced and invasive species.
- Parasitology and Histology laboratory. Isolation, identification and research of various parasites, including zoonotic agents, using different microscopy techniques (light microscopy, fluorescence microscopy, confocal laser microscopy).
- Zooculture and Nature Conservation laboratory. The main directions of the field are the development of zoocultural technologies, research on the ecology of rare and protected reptiles and amphibians in Latvia for the purpose of protecting, study of infestations of alien species dangerous to Latvian nature.

Department of Applied Chemistry[26]:

The Department of Applied Chemistry conducts fundamental and applied research in the fields of inorganic, organic and analytical chemistry, and develops cooperation with biologists and physicists. The department implements research projects, trains bachelor's, master's and doctoral students and develops scientific papers. The research results are focused on the development of new innovative materials and method, for example, development of fluorescent analysis methods and fluorescent materials, determination of pesticides and other toxicants in food, production of biogas from aquaculture residues and optimization of production process parameters.

[25] Ekoloģijas departaments (*Department of Ecology*), DU, retrieved from: https://du.lv/zinatne/instituti/dzivibas-zinatnu-un-tehnologiju-instituts/strukturvienibas/ekologijas-departaments/
[26] Lietišķās ķīmijas departaments (*Department of Applied Chemistry*), DU, retrieved from: https://du.lv/zinatne/instituti/dzivibas-zinatnu-un-tehnologiju-instituts/strukturvienibas/lietiskas-kimijas-departaments/

Department of Technology and its structural units[27]:

- G. Liberts' Innovative Microscopy Centre. The centre conducts scientific research in various directions (nanotechnologies, holography, thin film synthesis, etc.), cooperation with biologists and physicians is being developed. The centre implements several EU projects and grants from the Latvian Council of Science (hereinafter - LCS), trains bachelor's, master's and doctoral students and writes scientific papers. The centre's main research topics are nanostructured functional materials, nano biosensors and digital holographic recording methods.
- Belarus-Latvia Scientific-Innovative Strengthening Centre in the Field of Technology. The centre was created by combining the ideas of Daugavpils entrepreneurs, DU and Belarusian National Technical University scientists on the development of industrial technologies in the region. Research topics: industrial materials laser processing methods, programming of industrial equipment and robots.
- Mathematical Research Centre. The main research fields of the Mathematical Research Centre are nonlinear boundary value problems for ordinary differential equations, mathematical models for gene regulatory systems, and dynamics of discrete-time dynamical systems. The Mathematical Research Centre also carries out research in linear algebra, graph theory, mathematical biology, and math education.

Department of Design[28]:

The main research topics of the Department of Design are ethno and cultural biology, Ethno and cultural coleopterology, Integration of biological objects in design, Design of traditional textiles in the multicultural environment of Latgale, retrospective and contemporary aspect in art science and design. The Department of Design of the Institute of Life Sciences and Technologies consists of:

- Creative Incubator;
- Design Laboratory.

Areas of activity of the Design Laboratory are development of conceptual and graphic design materials and their realization.

Attracting external funding

External funding attracted has grown from 222,000 EUR in 2016 to 281,000 EUR in 2021. DU is actively involved in various EU and national projects and programs. DU participates in the largest EU research and innovation program Horizon 2020, as well as in the European Research Area Network (hereinafter – ERA-NET). DU uses also funding opportunities offered by the EU Structural Funds, the European Economic Area and the Norwegian Financial Mechanism, and the Cross-Border Cooperation Program.

[27] Tehnoloģiju departaments (*Department of Technology*), DU, retrieved from: https://du.lv/zinatne/instituti/dzivibas-zinatnu-un-tehnologiju-instituts/strukturvienibas/tehnologiju-departaments/
[28] Dizaina departaments (*Department of Design*), DU, retrieved from: https://du.lv/zinatne/instituti/dzivibas-zinatnu-un-tehnologiju-instituts/strukturvienibas/dizaina-departaments/

In total, DU was involved in 18 international research projects in 2020-2022. Among them, six are Horizon 2020 program projects, where four were in the field of Natural Sciences and one project in Humanities and Arts and Social Sciences. In 2017-2022, EU structural funds funding was also attracted, ensuring improvements in research infrastructure, improvement of governance, reducing fragmentation of study programs, modernization of content, and strengthening of staff competencies.

General information about DU in the field of higher education

In the 2021/2022 academic year, DU offered 53 study programs, 14 of which are implemented in English[29]. In Humanities and Arts, 14 study programs are implemented in three study fields. In Natural Sciences, 19 study programs are implemented in six study fields, and 20 study programs are implemented in the specialization area of Social Sciences, including six different study fields (Table 2).

Table 2. DU study fields and number of programs in the 2022/2023 academic year (Source: DU)

Humanities and Arts	Natural Sciences	Social Sciences
Study fields		
Language and Culture Studies (6)	Physics, Materials Science, Mathematics and Statistics (6)	Education, Pedagogy and Sports (7)
Arts (5)	Life Sciences (4)	Economics (3
History and Philosophy (3)	Information Technology, Computer Science (3)	Psychology (3)
	Chemistry (2)	Law (3)
	Health Care (2)	Management and Administration and Real Estate Management (2)
	Environmental Protection (2)	Internal Security and Civil Protection (2)

DU provides various levels of education in 15 study fields:

- 19 bachelor's study programs,
- 20 master's study programs,
- 11 doctoral study programs,

[29] Studiju virzieni, Augstākās izglītības kvalitātes aģentūra (*Fields of study, Higher Education Quality Agency*), retrieved from: Studiju virzieni (aika.lv)

- continuing education study programs,

- 3 higher professional education study programs.

Five DU faculties are primarily involved in the planning, organization and direct implementation of the study process (Faculty of Humanities, Faculty of Music and Arts, Faculty of Natural Sciences and Mathematics, Faculty of Education and Management, Faculty of Social Sciences). In addition, the Study Quality Assessment Center, Lifelong Learning Center, Student Service Center and Academic Publishing House "Saule" also participate in ensuring the DU processes.[30]. One person works at the Lifelong Learning Center and offers both video lecture courses and courses in cooperation with the State Employment Agency.

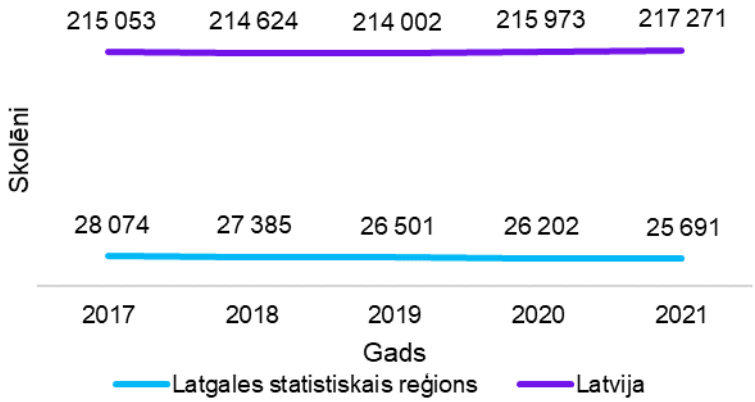
Regarding the dynamics of the number of students in general education schools, a stable trend with a slight increase has been observed in recent years. In 2017, there were 215,000 students, but in 2021 – 217,000. The exact opposite situation is in the Latgale statistical region – in 2017 there were approximately 28,000 students, but by 2021 there was a significant decrease in the number of students (by 8%), reaching 25,000 students (Figure 3). If current trends continue, the number of students from Latgale Region will stabilize or decrease in the next five years, taking into account the existing educational provision at DU.

Regarding the dynamics of the number of 12th grade students, a stable trend with a slight decrease has been observed in recent years. In 2017, there were 9,188 students, but in 2021 – 9,053[31]. Taking into account the existing data and the overall educational provision of DU, it can be forecasted that the number of students will either decrease or remain more or less unchanged, since a significant part of the students go to study in

[30] Struktūra (*Structure*), DU, retrieved from: Struktūra > Daugavpils Universitāte (du.lv)
[31] Izglītojamo skaits vispārizglītojošajās dienas skolās pa klasēm (*Number of students in comprehensive day schools by grade*), OSP, retrieved from: https://data.stat.gov.lv/pxweb/lv/OSP_OD/OSP_OD__sociala__izgl__vispskolas/IZG090.px/

Riga. The number of students is also significantly affected by the increase of international competition in attracting Latvian secondary school graduates to foreign universities.

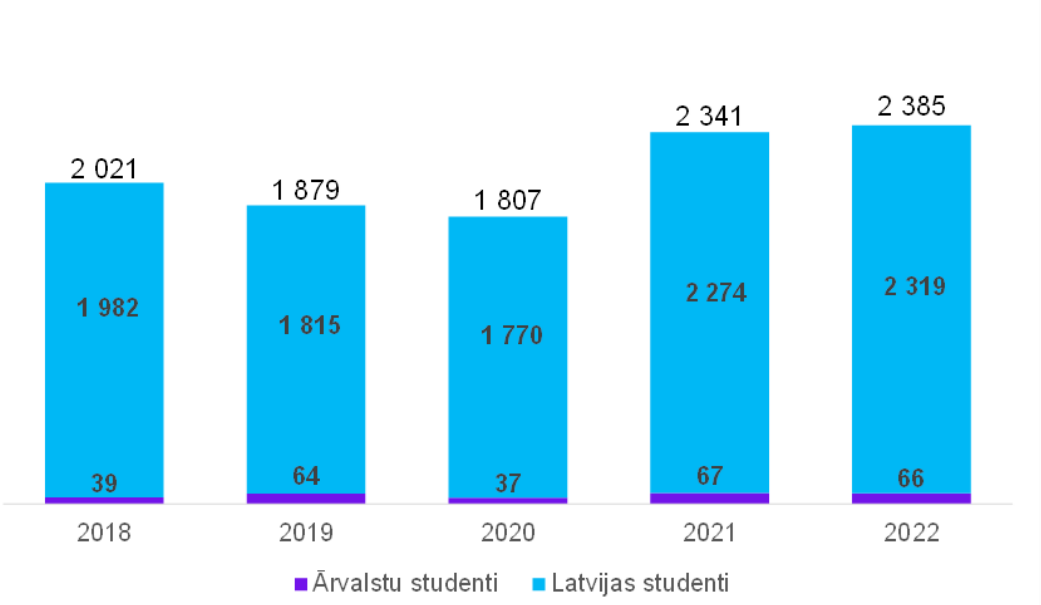
Figure 3. Number of students in general education schools in 2017-2021 (Source: Official Statistics Portal[32])



The number of DU students has increased over the past five years from 2,021 students in the 2017/2018 academic year to 2,385 students in the 2021/2022 academic year (an increase of 18%). The rapid increase is related to the reform of the nursing profession, which was approved in 2019[33]. The number of foreign students has increased from 39 students in the 2017/2018 academic year to 66 students in the 2021/2022 academic year (Figure 4). The biggest proportion of foreign students was from the USA (since 2021), where in 2022 it amounted to 28%, while the second biggest proportion of foreign students was from Russia – 21%.[34]

[32] Vispārizglītojošo skolu skolēnu skaits statistiskajos reģionos un republikas pilsētās (*Number of students in general education schools in statistical regions and cities of the republic*), OSP, retrieved: https://data.stat.gov.lv/pxweb/lv/OSP_OD/OSP_OD__sociala__izgl__vispskolas/IZG210.px/
[33] MK rīkojums Par konceptuālo ziņojumu "Par māsas profesijas turpmāko attīstību" (*Order of the Cabinet of Ministers On the conceptual report "On the future development of the nursing profession"*), LR MK, 2019, retrieved from: https://likumi.lv/ta/id/310369-par-konceptualo-zinojumu-par-masas-profesijas-turpmako-attistibu-
[34] DU data on students in CSB tables

Figure 4. Total number of full-time Latvian and foreign students at DU in 2018-2022 (Source: Information compiled by DU in CSB tables)



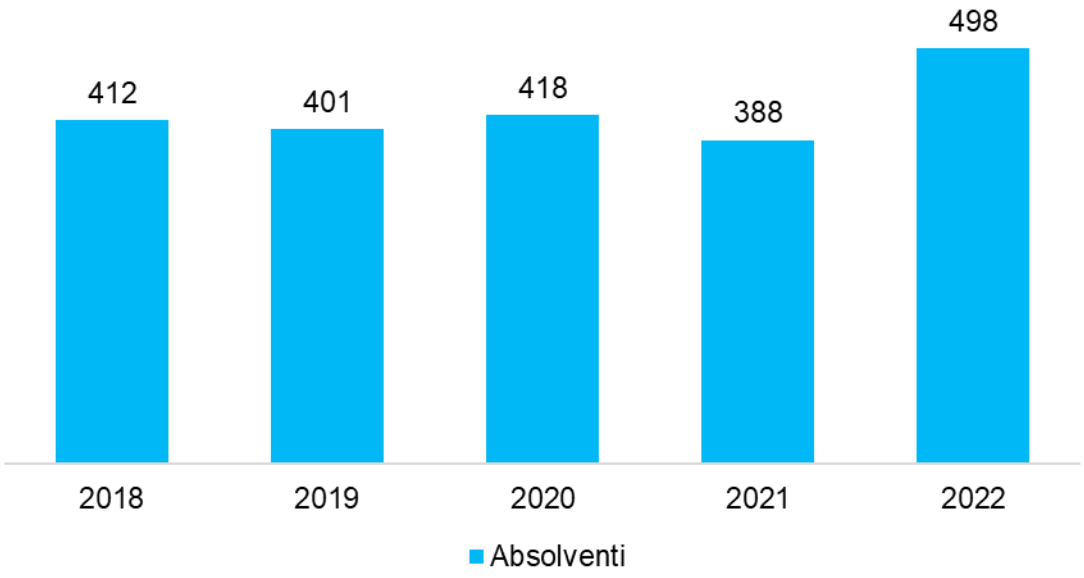
Over the period of five years (2018-2022), the number of DU graduates has increased from 412 graduates in 2018 to 498 graduates in 2022 (20% increase). The increase is justified by the nursing profession reform in 2019, resulting in increase of students at DU in 2021, graduating in 2022 (Figure 5).

In 2022, 48.8% of graduates completed Social Science programs, 26.1% Natural Science programs (including medical and health science programs) and 25.1% graduated from Humanities and Arts programs. Considering the small increase in the number of students in 2022, a slightly higher number of graduates can also be predicted in the following years.[39]

In 2022, the proportion of academic staff aged 30-49 was 50%, 69% of DU academic staff have a doctoral degree and 3% of the total number of academic staff are foreign staff.[35]

[35] Information compiled by DU about academic staff

Figure 5. Number of full-time DU graduates in 2018-2022 (Source: DU data)



Infrastructure development projects at DU

DU has implemented significant projects on infrastructure improvements in buildings in 2017-2022:

- Increased energy efficiency of study buildings at Vienības Street 13 and Parādes Street 1, dormitories at Parādes Street 11, Valņu Street 29, Sporta Street 6 and 8 and sports complex at Kandavas Street 1 (ERDF 4.2.1.2/17/I/003).

Moreover, DU has implemented significant projects on the introduction of innovations, research development and equipment modernization:

- Modernized the infrastructure and equipment of Daugavpils Medical College (2017-2018, 981,614 EUR, ERDF funding);
- Modernized STEM, healthcare and arts study programs (2017-2018, 196,655 EUR, ERDF funding), as well as study field “Education, Pedagogy and Sports” (2018, 154,275 EUR, ESF funding);
- Strengthened the capacity of academic staff in the study field “Education, Pedagogy and Sports” (2018, 13,110 EUR, ESF funding);
- Completed project on building digital capacity at the university with smart integration of online learning resources and analytics (2022, EUR 35,200, ESF funding).

Additionally, at the time of development of DU 2028, the following projects are being implemented[36]:

- Reducing fragmentation of study programs and strengthening resource sharing at DU (since 2019, 500,000 EUR, ESF 8.2.1);
- Modernization of the study field “Education, Pedagogy and Sports” at DU for the sustainable development of the Latvian education system (since 2018, 670,114 EUR, ESF 8.2.1.);
- Building the digital capacity of higher education institutions with smart integration of online learning resources and analytics (since 2022, 1,321,314 EUR, in cooperation with other Latvian universities, ESF 8.2.3.);
- Digitalization initiatives for improving the quality of studies in the areas of strategic specialization of higher education institutions (since 2022, EUR 199,996 allocated to DU, in cooperation with other Latvian universities, ESF 8.2.3.).

DU supervisory bodies and capital companies

Daugavpils University Agency “Latvian Institute of Aquatic Ecology” (LIAE): a scientific institute that studies fundamental and practical problems related to the environment and ecology of the Baltic Sea. The institute conducts academic and applied research in aquatic ecology, focusing on the seasonal dynamics of plankton and benthic organisms, the impact of alien species on the natural ecosystem, the distribution and impact of pollutants, including microplastics, on organisms, and the development of the potential of spatial planning for the conservation of biodiversity.[37]

Daugavpils University Agency “Daugavpils University Medical College” (DUMC): college develops and implements first-level professional higher education programs in the field of health and social care. It offers first-level professional higher education programs in medicine, social rehabilitation, social care, therapeutic massage, cosmetology and podiatry. DUMC also offers a vocational education program in nursing with the qualification of a nurse's assistant and continuing education programs in cosmetology and medicine.[38]

[36] Projekti (*Projects*), DU, retrieved from: Projekti > Daugavpils Universitāte (du.lv)
[37] Latvijas Hidroekoloģijas institūts (*Latvian Institute of Aquatic Ecology*) Sakums - LHEI
[38] DUMK (*Daugavpils University Medical College*), retrieved from: https://dmk.lv/ https://dmk.lv/

1. Work plan and development methodology

The development of DU 2028 was carried out in several sequential steps and was based on the following methods and sources of information:

Content analysis of documents

A compilation, research and analysis of European and Latvian-level policy planning documents and literature sources relevant to DU were carried out. As an example, the following documents were considered in the development of DU 2028:

— National Development Plan of Latvia for 2021-2027 (hereinafter – NDP 2027);

— Guidelines for Science, Technology Development, and Innovation 2021-2027 (hereinafter – GSTDI 2027);

— Education Development Guidelines 2021-2027 (hereinafter – EDG 2027);

— Priority Action Plan for Latvia 2021-2027;

— Sustainable Development Strategy of Latvia until 2030;

— Latgale Planning Region Development Plan for 2027;

— Sustainable Development Strategy of Daugavpils City 2014-2030;

— Sustainable Development Strategy of Daugavpils City and Augšdaugava Region until 2030;

— European Union (hereinafter – EU) Recovery and Resilience Plan 2021-2026 (hereinafter – RRP);

— Digital Transformation Guidelines 2021-2027 (hereinafter – DTG 2027);

— Development Cooperation Policy Guidelines for 2021-2027;

— OECD Skills Strategy Latvia: Assessment and Recommendations[39].

Additionally, various internal regulatory documents and reports of DU strategic management containing information significant for the development of DU 2028 were analysed, for example, Daugavpils University Development Strategy for 2015-2020 (hereinafter – DU 2020), a description of the quality management system, DU annual reports on scientific activities, the results of the 2019 International Evaluation of Scientific Institutions' Activity, DU doctoral study program development plan 2020-2026 for the

[39] OECD (2019), OECD Skills Strategy Latvia: Assessment and Recommendations, OECD Skills Studies, OECD Publishing, Paris, https://doi.org/10.1787/74fe3bf8-en.

implementation of the new doctoral study model at Daugavpils University, minutes of DU Council meetings, etc.

National and EU policy assessment

An analysis of EU and national planning documents was also conducted. As a result, conclusions were drawn on the binding political objectives for DU and the external funding available for further development. These aspects were considered in the development of the implementation plan, identifying possible priority activities and their funding sources.

Statistical data analysis

The data and information for the analysis of current situation were obtained from DU structural units, as well as publicly available databases and statistical reports, such as those of the Central Statistical Bureau (hereinafter – CSB), the Official Statistics Portal (hereinafter – OSP) and the Ministry of Education and Science (hereinafter – MoES). They were used to develop and substantiate the SWOT analysis of the current situation.

Expert assessment

Expert assessment has played a significant role in the development of DU 2028. After analysing the available information and data, as well as consulting with DU representatives and other stakeholders, KPMG experts with experience in the development and management of higher education institution development strategies and in the fields of higher education and science defined their objective conclusions and recommendations regarding DU 2028.

In-depth interviews

In-depth group interviews were organized with DU internal specialists and external specialists (Latgale Planning Region (hereinafter – LPR), MoES, Daugavpils Municipality, DU graduates) in March 2023. Participants were asked to express their opinions on various possible future development goals of DU, identifying current strengths and weaknesses, opportunities and threats. These conclusions were grouped, and internal and external factors were determined, thus identifying DU priority issues in each of the topics:

1. **Education** (study environment, program development, lifelong learning, services to society);

2. **Science** (priorities of research fields, scientific cooperation at a national and international level, technology transfer and innovation, interdisciplinarity);

3. **Governance** (staff development policy, including internationalization, governance modernization, student involvement in DU development, quality management policy, social responsibility, cultural and sports activities);

4. **Cooperation** (institutional modernization perspective, cooperation with graduates and patrons, internationalization);

5. **Infrastructure** (ensuring infrastructure modernization and accessibility, sustainability of operations and the university's "green choice" – DU activities to ensure a sustainable environment, development of a digital society and smart organization, real estate development plan, digital university).

Based on the in-depth interviews, a list of conclusions and proposed solutions was prepared to be evaluated in SWOT analysis and considered in specifying the mission and vision and formulating the key development goals. The interviews were structured into three topics, which resulted into several questions related to strategic planning:

1. What has been achieved and what has not been achieved in the implementation of DU Strategy 2015-2022;
2. Internal and external factors that have influenced the achievement of the goals of DU 2015-2022;
3. Priorities of the new DU Strategy 2022-2028.

In total, more than 40 people participated in the in-depth interviews, representing DU senior management, employees, students, as well as external stakeholders and cooperation partners. The interview schedule and the parties involved can be found in Appendix No 2.

SWOT and TOWS analysis

The assessment of the current situation and SWOT analysis were based on various sources of information to ensure the reliability and relevance of the observations and conclusions made to the current situation: 1) Data and document analysis; 2) Interviews with DU representatives; 3) Interviews with external experts and representatives of the stakeholders; 4) DU 2020; 5) Results of surveys conducted by the DU Students' Council.

The conclusions from SWOT analysis were presented and sent to DU management staff and DU Council for evaluation, as well as for comments and additions. After collecting feedback, SWOT conclusions were synthesized, using the TOWS (Threats, Opportunities, Weaknesses, Strengths) approach, which allows the identification of four action strategies:

— **MAXI-MAXI** strategies that use strengths to maximize the benefits of opportunities;
— **MINI-MAXI** strategies that minimize weaknesses, taking into account the benefits of opportunities;
— **MAXI-MINI** strategies that use strengths to minimize threats;
— **MINI-MINI** strategies that minimize weaknesses to avoid threats.

Management Seminar

A management seminar was organized on 15 May 2023 with the aim of agreeing on the key development goals and, if necessary, clarifications of the DU vision and mission. It was attended by DU Council, DU Rector and DU Vice-Rector for Development.

The agenda of the seminar was prepared based on the research conducted in previous assignments and the identification of the views of stakeholders. SWOT and TOWS analysis, as well as thematic in-depth interviews and KPMG's previous experience in the field of higher education and science allowed the preparation of a wide range of proposals, which were compiled in a single "Goal Bank" or list, which reflected the possible strategic priorities of DU until 2028. During the seminar, the participants jointly formulated proposals for DU's medium-term development goals, as well as discussed possible clarifications of the mission and vision.

Working groups

On 23 May 2023, three working group discussions were organized, involving DU internal specialists (deans of faculties, employees of scientific institutes, employees of the Economic Department, Finance and Accounting Department, Science Department, etc.) who had previously participated in the in-depth interviews. The goal of these working groups was to align and clarify the proposed DU 2028 mission and implementation plan, as well as the responsible parties and outcome results for each of the implementation plan activities.

Development of the implementation plan

The final stage of the development of DU 2028 included the development of an implementation plan in accordance with the established development goals. In order not to lose the results obtained in the methods carried out previously, the initial version of the implementation plan (courses of action) was formulated based on the developed “Goal Bank”. After that, work began on creating a list of activities, which are relatively more specific actions in the implementation of DU 2028. This was organized by involving DU management and DU Council to ensure higher responsibility and understanding of the practical implementation of DU 2028. Finally, the implementation plan was supplemented with sections such as a financing plan, indicating the priority funding source for each activity, and DU 2028 performance indicators, determining the indicators to be achieved for each goal and their target values by 2028. Five DU 2028 impact indicators were separately determined for evaluating DU achievements and the status of DU 2028 implementation.

2. Key development goals of the strategy

For the medium-term development of DU, three key development goals have been determined, based on the study of the current situation, expert opinions and priorities set by DU.

Educational provision based in a modern and digital environment that is implemented throughout life and is in line with the demands of society and industry.

Currently, DU provides demanded and publicly accessible educational programs for both Latvian and foreign students. However, the analysis of the current situation indicates a high fragmentation of study programs, insufficient cooperation with employers and the need for the development of digitalization. Therefore, the goal is to ensure the educational provision in accordance with the needs of the labour market and society and the priorities of policy planning documents, to improve study programs for student-centred education, to improve digital skills and the use of digital technology, as well as to promote internationalization and local cooperation. The achievement of this development goal will be analysed according to the improvement of such indicators as the number of students, employment of graduates in higher qualification professions, student evaluation of study programs, the number of lifelong learning programs, investments in new equipment per student, the proportion of foreign academic staff and foreign students, etc. An expanded list of activities for this development goal is provided in section 7.2.1. and an expanded list of indicators is provided in section 7.3.1.

Research based on long-term cooperations resulting in high-quality results internationally and a positive impact on Latgale Region.

Since 2015, DU's involvement in Horizon Europe projects has increased, DU had good results in the IESIA, and the ratio of defended doctoral theses to the FTE of scientific staff is relatively high. However, DU did not meet the criterion for the status of a university of science – “at least 1000 indexed scientific publications in "Web of Science" and "Scopus" databases within a period of five years”. The capacity of DU staff for research is relatively low and the operation of a technology transfer contact point is not ensured. Within the framework of this goal, it is planned to promote the excellence of scientific results, improve research management, develop the impact on the social and economic environment of Latgale Region and Sēlija, and improve international cooperation and partnerships. The achievement of the goal will be analysed based on the improvement of indicators such as the proportion of scientific publications in Q1, Q2 scientific journals, IESIA results in strategic specialization areas, the number of scientific publications over 5 years indexed in WoS/SCOPUS databases, participation in consortia and scientific networks, doctoral degree holders compared to the FTE of scientific staff, etc. An expanded list of activities for this development goal is provided in section 7.2.2. and an expanded list of indicators is provided in section 7.3.2.

An independent cooperation partner with a good reputation both internally and externally.

In recent years, DU has taken significant measures to centralize governance issues, which facilitate the everyday life of academic staff and students. DU has successfully taken over the Daugavpils University Medical College and the Latvian Institute of Aquatic Ecology, which provide DU with additional resources and opportunities, as well as has developed a description of the quality management system. However, during the analysis, it was concluded that there is a need to improve administrative support for both education and science, improve internal communication both among employees and students, and develop staff competencies. Therefore, the goal is to promote the financial sustainability of DU, improve the external image of the university, attract and retain talents, modernize institutional management and promote the development and sustainability of infrastructure. The achievement of this development goal will be analysed according to the improvement of indicators such as income from contract work, studies and lifelong learning programs, employee satisfaction, number of mobility trips, etc. An expanded list of activities for this development goal is provided in section 7.2.3. and an expanded list of indicators is provided in section 7.3.3.

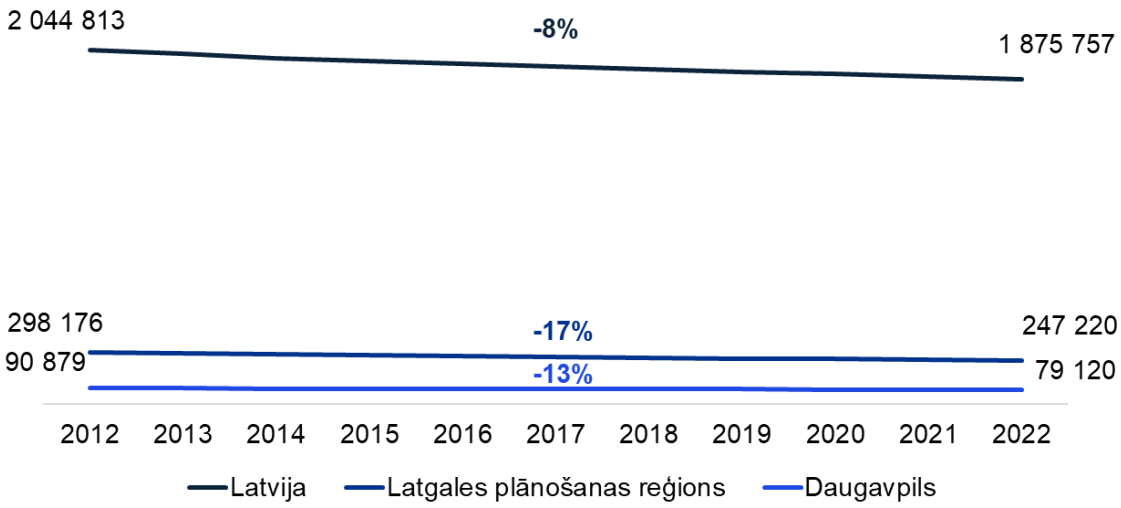
3. Analysis of the operational framework and development prospects of Daugavpils University

3.1 National context

3.1.1 Demographic development

From 2012 to 2022, a decrease in the population is observed in Latvia, Daugavpils and the LPR. Overall, the population in Latvia has decreased by approximately 8%, in Daugavpils by approximately 13%, and in the LPR by approximately 17% (Figure 6).

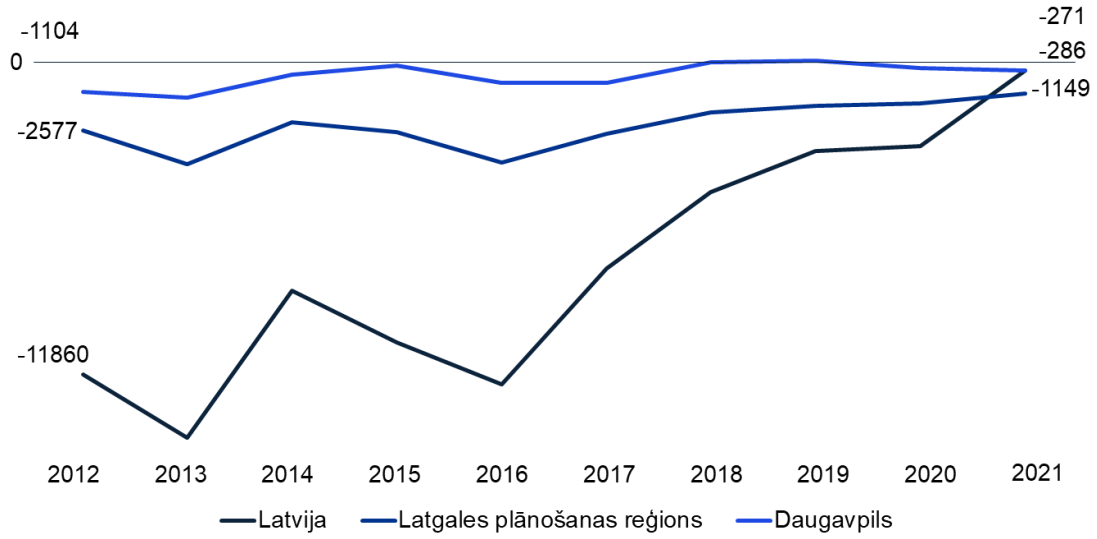
Figure 6. Population in Latvia, LPR and Daugavpils in 2012-2022 (Source: CSB[40])



Since 2012, Latvia's net migration (the difference between the number of people entering and leaving the country) has improved significantly, but remains negative. A similar trend is observed in Daugavpils, but the net migration of LPR has improved the slowest. These data indicate that overall, there are more people leaving LPR than arriving (Figure 7).

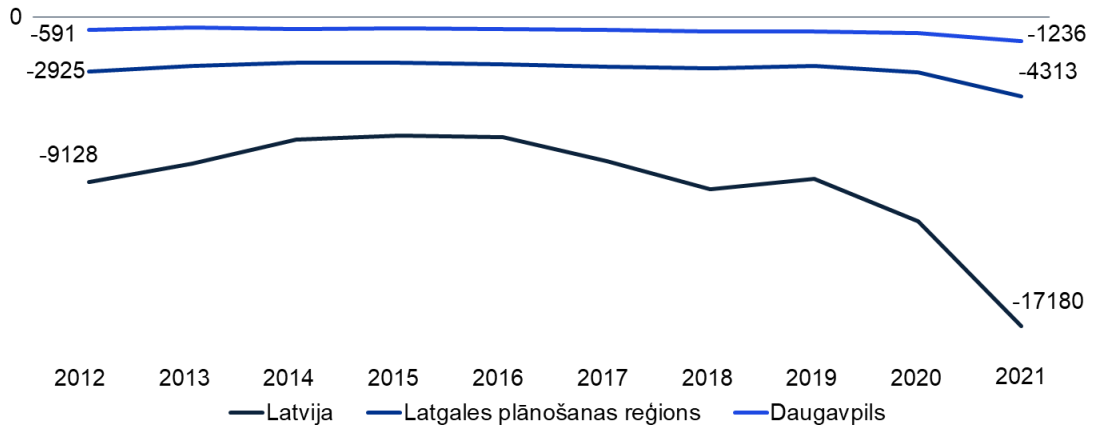
[40] https://data.stat.gov.lv/pxweb/lv/OSP_PUB/START__POP__IR__IRD/IRD010/

Figure 7. Net migration in Latvia, LPR and Daugavpils in 2012-2021 (Avots: CSB[41])



From 2012 to 2021, a negative trend in the natural population growth is observed in Latvia, LPR and Daugavpils. In Latvia, the natural population growth has decreased by 88%, in LPR by 47% and in Daugavpils by 109% (Figure 8).

Figure 8. Natural population growth in Latvia, LPR and Daugavpils 2012-2021 (Avots: CSB[42])



Based on KPMG forecasts and the current situation, it has been concluded that by 2028 the population of Latvia will decrease by 4.2% and the number of births by up to 9% (compared to 2022). Considering the current data and the overall educational provision of DU, it can be predicted that the number of students will either decrease or remain relatively unchanged, as a large part of students go to study in Riga. The number of

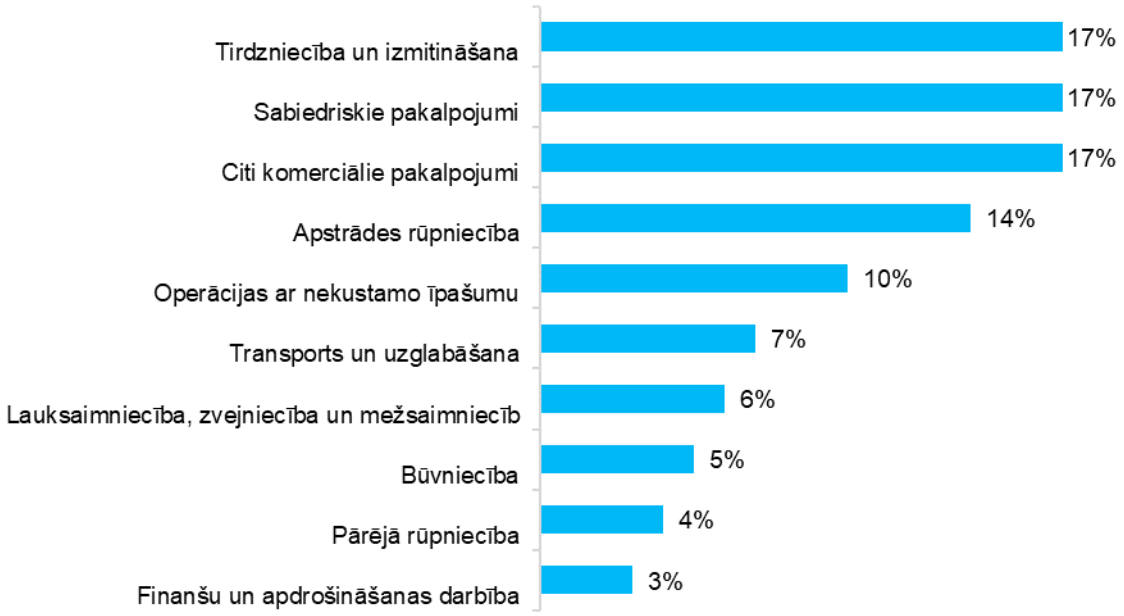
[41] https://data.stat.gov.lv/pxweb/lv/OSP_PUB/START__POP__IR__IRS/IRS030/
[42] https://data.stat.gov.lv/pxweb/lv/OSP_PUB/START__POP__IR__IRS/IRS030/

students is also significantly affected by the increase of international competition in attracting Latvian secondary school graduates to foreign universities.

3.1.2 Economic development

In 2022, growth was observed in all sectors contributing to GDP, except for construction, other manufacturing, trade and financial activities. The largest impact was from the increase of volume in administrative and support services activities. The largest contribution to GDP was made by the trade and accommodation, public services and other commercial services sectors (Figure 9).

Figure 9. Value added structure of sectors contributing to GDP in 2022, % (Source: Ministry of Economics[43])



Based on data from previous years, it can be assumed that over the next five years all sectors contributing to GDP will have a similar structure and development trend, with growth observed in almost all sectors. For example, the Ministry of Finance forecasts that there will be a GDP decline of 0.6% in 2023, but in 2024 and 2025 economic growth will resume and reach 3.0% per year.[44]

Based on the Ministry of Economics' labour market forecasts until 2040, various trends are emerging in industries. The share of labour demand in commercial services and IT

[43] Latvijas Makroekonomiskais pārskats, Ekonomikas Ministrija (*Latvia's Macroeconomic Report, Ministry of Economics*), retrieved from: download (em.gov.lv)
[44] Par aktualizētām makroekonomisko rādītāju, ieņēmumu un vispārējās valdības budžeta bilances prognozēm 2023.-2025.gadā, Finanšu ministrija (*On updated forecasts of macroeconomic indicators, revenue and general government budget balance for 2023-2025, Ministry of Finance*), retrieved from: https://tapportals.mk.gov.lv/legal_acts/06f99de0-35e7-42f0-aace-206a63e92a96

industries may increase, indicating their growing importance in the economy, including reflecting the demand for information technology solutions and digital innovations. The creation of interdisciplinary programs on IT and their application in strategic specialization areas, based on forecasts for labour market growth specifically in the field of information technology and communications, is an opportunity for DU to offer corresponding study programs. Additionally, it also promotes the demand for new research and projects in this area. The share of the labour force in the industrial sector is also predicted to increase, which indicates the industrialization of the economy and the development of the manufacturing sector. In turn, the share of the labour force in the agricultural sector is predicted to decrease, possibly due to the transition to more modern production methods and automation. The share of the labour force in the transport sector may also decrease, related to new transportation solutions and digital transformation. The share of the financial services sector workforce is projected to decline, possibly due to the spread of digital banking and financial technologies. The share of the public services sector workforce may decline, indicating efforts to modernize and improve efficiency in this area. The manufacturing sector is projected to grow its workforce at a faster rate, which could be related to the latest technological processes, digitalization and optimization.[45]

The hospitality and catering sector workforce is expected to recover rapidly from the negative impact of Covid-19, possibly due to the easing of travel restrictions and the recovery of the tourism industry. The construction sector, on the other hand, is expected to see rapid workforce growth in the medium term, driven by large infrastructure projects such as Rail Baltica, as well as the renovation of the housing stock.[45]

Information technology development trends

Although the number of Latvians engaging in online activities is increasing, the Digital Economy and Society Index (DESI) 2020 data show that Latvians lack digital skills at all levels, from basic to advanced[46]. This poses a challenge for the digital transformation and affects productivity in the country. Similarly, the low proportion of information and communication technology (ICT) specialists is limiting digital development[47].

Unfortunately, Latvia has not made significant progress in improving digital skills and lags behind the EU average. Only 43% of Latvian residents aged 16-74 have basic digital skills, compared to 58% in the EU. This indicator is classified as "critical". Additionally, ICT specialists make up a small share of the workforce (1.7% compared to 3.9% in the EU). Digital Assessment of Latvia "Going Digital in Latvia" prepared by The Organisation for Economic Cooperation and Development (OECD) indicates that the lack of basic digital skills limits the wider use of ICT among the population and the ability of Latvian enterprises to use digital technologies. This creates obstacles to business investment and limits productivity growth. To address this problem, the digitalisation of vocational and higher education and a modular approach are necessary. The involvement of

[45] Darba tirgus prognozes līdz 2040.gada, Ekonomikas ministrija (*Labour market forecasts until 2040, Ministry of Economics*), retrieved from: Darba tirgus prognozes 2040 (em.gov.lv)
[46] Latvia in the Digital Economy and Society Index | Shaping Europe's digital future (europa.eu)
[47] Digitālās transformācijas pamatnostādnes 2021.-2027.gadam, VARAM (*Digital Transformation Guidelines 2021-2027, MoSARD*), retrieved from: digitalas-transformacijas-pamatnostadnes-_2021-27.pdf (varam.gov.lv)

employers and educational institutions in the relevant sector is also important, including cooperation with employers and industry associations, especially at a higher education level.[47]

To ensure the training of qualified and in-demand ICT specialists, higher education institutions need to be able to lead the digital transformation. They could act as smart growth digital innovation hubs that support businesses and public administrations in their digital transformation. Such hubs would promote greater coherence at the EU level, involving all stakeholders in the innovation ecosystem – students, businesses, start-up communities, academia and national and local authorities.[47]

Overall, the lack of digital skills is limiting Latvia's digital development and the innovation potential of businesses. Measures are needed to improve digital skills in the country, stimulate the growth of the number of ICT specialists and strengthen cooperation between educational institutions and employers. DU can contribute to improving digital skills by offering training and ICT programs that promote the development of students' digital skills. These programs can cover both basic digital skills that are necessary for all students regardless of their field of study, and specialised skills that are developed for specific industries or professions.[47]

DU can include work-based projects in the learning process allowing students to practically apply and develop their digital skills. This can include practical experience in program development, use of digital tools and technology, data analysis and the development of digital communication skills. In addition, DU can create ICT study and lifelong learning programs giving students the opportunity to specialize in the areas of digital technology and innovations. These programs can combine theoretical learning with practical experience, involving students in projects and research related to digital industries and technological innovations.

Opportunities for regional specialization and specialization of economic activity

The policy planning documents for the economic development of Daugavpils have identified the following prospective business areas: metal fabrication and vehicle production, food production, optical equipment production, energy, clothing production, transit and logistics services, IT services, tourism, healthcare services, sports services, creative industries, trade. For these areas, DU can offer training of specialists in the fields of Natural Sciences and IT, Social Sciences, Business and Law, Humanities and Arts, as well as Healthcare and Social Welfare.[189] [190] [191] [192]

The development prospects of DU are also based on the Sustainable Development Strategy of Latvia until 2030, which defines priority sectors for the development of Latgale Region[48]. For example, the main priorities are the development of railway transport, the creation of a functional network, the economic potential of the border area, the efficiency of thermal energy production, the development of airports and transnational cooperation. Daugavpils is emphasized as a multinational and

[48] Latvijas ilgtspējas attīstības stratēģija līdz 2030.gadam (*Sustainable Development Strategy of Latvia until 2030*), retrieved from: Latvija_2030_7.pdf (pkc.gov.lv)

multifunctional city with an importance in cross-border economic development and international ties.

The LPR development program highlights the Smart Specialisation Strategy for Latvia, which aims to increase innovation capacity, as well as to create an innovation system, including at the regional level, that promotes and supports technological progress in the national economy[49]. DU is highlighted as an important science, study and innovation centre in Latvia, which attracts academic staff, young people and all those for whom the advancement to knowledge is important. Currently, DU continues to develop its scientific excellence in the changing and increasingly demanding global scientific environment. From an educational perspective, DU study programs provide sufficient basic skills and knowledge so that after graduating from first-level studies it would be possible to find a place in the labour market, establish innovation transfer companies or engage in scientific research. DU has also established a scientific infrastructure, and the infrastructure is constantly being improved to allow scientific research, prototype development and commercialization of research in line with economic development trends.

3.2 European Union context

As a result of the assessment of national and EU policies, KPMG experts have prepared a summary of the priorities defined in the planning documents. The overall framework of priorities is summarized in Figure 10. It shows that all priorities can be divided into two main blocks – Science and Education – and in four “horizontal” blocks – Human Resources, Cooperation, Digitalization and Governance. This sequence shows how high a priority each of the aspects is in the planning documents.

Comparing the priorities of the planning documents with DU mission, vision, and key development goals for 2022-2028, they largely coincide:

- Both at the EU and national levels, there is a strong emphasis on science, knowledge creation and further transfer for the growth of each individual, country and economy. Two key elements for achieving this goal are the **development of research and academic staff**, as well as **high-quality, accessible and inclusive education**. This sequence and logic are reflected in the proposal of DU vision, as well as in the proposed key development goals for 2022-2028;

- The achievement of EU and national level goals is further supported by priorities – cooperation (including knowledge transfer and commercialization), digitalization and governance – which are also included as courses of action in the DU development strategy for 2021-2027.

[49] Latgales plānošanas reģiona Attīstības programma 2021.-2027.gadam (*Latgale Planning Region Development Program 2021-2027*), retrieved from: Latgales-plānošanas-reģiona-Attīstības-programma-2021.-2027.gadam .pdf (lpr.gov.lv)

Figure 10. Main priorities of EU and national level planning documents[50]

[50] ES fondu prioritāte – Darbības programma Latvijai 2021.-2027.gadam; NAP2027 – Nacionālais attīstības plāns 2021.-2027.gadam, prioritātes; ZTAI2027 – Zinātnes, tehnoloģiju attīstības un inovācijas pamatnostādnes; IAP2027 – Izglītības attīstības pamatnostādnes 2021.-2027.gadam; ANM – Atjaunošanas un noturības mehānisms; DTP2027 – Digitālās transformācijas pamatnostādnes 2021.-2027.gadam (*EU Funds Priority – Operational Programme for Latvia 2021-2027; NDP2027 – National Development Plan 2021-2027, priorities; GSTDI2027 – Guidelines for Science, Technology Development, and Innovation 2021-2027; EDG2027 – Education Development Guidelines 2021-2027; RRP – Latvia's Recovery and Resilience Plan 2021-2026; DTG2027 – Digital Transformation Guidelines 2021-2027*)

DU can attract funding also outside the 2021-2027 European Union Funds Program. Examples from other funding sources: COST[51], ERA-NET[52], EUREKA[53], Horizon, OSMOZE[54], Baltic Bonus[55].

3.2.1 Horizon Europe

Horizon Europe is the EU's framework program for research and innovation for 2021-2027 with aim to strengthen the EU's scientific and technological base. DU can continue to participate in these projects, increasing their professional capacity. The program consists of three pillars:

- **Excellent science** – reinforces the EU's scientific leadership. supports frontier research projects through the European Research Council and boosts investment in research infrastructure;
- **Global challenges and European industrial competitiveness** – supports research and innovation that addresses societal challenges and industrial technologies in areas such as health, digital, climate, energy, mobility, civil security, food and natural resources;
- **Innovative Europe** – focuses on promoting all forms of innovation, and in particular breakthrough and game-changing innovation, through the European Innovation Council[56].

Horizon Europe tackles climate change and helps achieve the United Nations (hereinafter – UN) Sustainable Development Goals and boosts EU's competitiveness and growth by creating new jobs and optimising investment in research[57].

DU has successfully participated in Horizon Europe projects, promoting cooperation in science community. The total funding of DU's contribution to all Horizon Europe projects since 2018 amounts to 0.7 million EUR, including:

- Growing Up in Digital Europe Preparation Phase (GUIDEPREP[58]);
- OPtimal strategies to retAIN and re-use water and nutrients in small agricultural catchments across different soil-climatic regions in Europe (OPTAIN[59]);
- European Cohort Development Project (ECDP[60]);

[51] COST | Latvijas Zinātnes padome (lzp.gov.lv)
[52] ERA-NET
[53] EUREKA
[54] Hubert Curien partnerības programma OSMOZE | Latvijas Zinātnes padome (lzp.gov.lv)
[55] Baltic Bonus | Latvijas Zinātnes padome (lzp.gov.lv)
[56] Eiropas Komisija (*European Commission*), retrieved from: Apvārsnis Eiropa - Consilium (europa.eu)
[57] Eiropas Komisija (*European Commission*), retrieved from: Horizon Europe (europa.eu)
[58] GUIDEPREP Project | European Commission (europa.eu)
[59] OPTAIN Project | European Commission (europa.eu)
[60] ECDP Project | European Commission (europa.eu)

- Cultural Heritage and Identities of Europe's Future (CHIEF[61]);
- Bringing Excellence to Transformative Socially Engaged Research in Life Sciences through Integrated Digital Centres (BETTER Life[62]).

3.2.2 Key technologies and flagship initiatives

The development perspectives of DU in the context of Key Enabling Technologies (hereinafter – KETs) and flagship initiatives are interconnected with how DU can promote and support innovation and technological development.

In the context of KETs[63]:

- Establish and develop a technology transfer and innovation centre that promotes cooperation with businesses and industry, providing scientific support and technology use (e.g., a technology transfer contact point);
- Promote research and development projects related to KETs to promote technology innovation and transfer to practical application;
- Establish and support innovation and start-up incubators that allow start-ups to develop and commercialise innovations based on KETs;
- Provide scientific education and training focused on KETs to prepare students and researchers who will be able to conduct research and create innovations with these technologies;
- Build international cooperation networks and partnerships that promote scientific and technology transfer activities in the field of KETs.

In the context of flagship initiatives[64] :

- Develop and implement research projects and innovative solutions that support the goals and priorities of flagship initiatives;
- Build partnerships with national and regional institutions, industry and public partners to implement the common goals of flagship initiatives and promote their sustainable development;

[61] CHIEF Project | European Commission (europa.eu)
[62] BETTER Life Project | European Commission (europa.eu)
[63] Key enabling technologies policy, Eiropas komisija (*European Commission*), retrieved from: Key enabling technologies (europa.eu)
[64] Flagships, Eiropas komisija (*European Commission*), retrieved from: Pamatiniciatīvās | Shaping Europe's digital future (europa.eu)

- Provide education and training that meets the requirements of flagship initiatives and provides students with the necessary knowledge and skills to carry out these projects and programs;
- Actively participate in project management, fundraising and partnership building to ensure an effective and successful implementation of flagship initiatives.

3.2.3 European Green Deal

European Green Deal aims to make Europe a modern, resource-efficient and competitive economy in which:

- There will be no net greenhouse gas emissions by 2050
- Economic growth will be decoupled from resource use;
- No person or region will be left behind[65].

The most relevant elements of the Green Deal for DU include areas such as[66]:

- Conserving and restoring ecosystems and biodiversity, based on the EU Biodiversity Strategy for 2030, the EU Soil Strategy for 2030 and the New EU Forest Strategy for 2030;
- Aiming for zero pollution with the goal of achieving a toxicant-free environment, based on the EU Zero Pollution Action Plan, the Chemicals Strategy for Sustainability and the EU Methane Strategy;
- Create a fair, healthy and environmentally friendly food system, based on the Farm to Fork Strategy.

3.2.4 Erasmus+

DU is participating in the Erasmus Charter for Higher Education (ECHE). The Charter sets out the basic principles that higher education institutions must follow when organising and implementing Erasmus program activities.[67]

The Erasmus+ program has a strong international dimension (i.e. cooperation with third countries not associated with the Program) in its mobility, cooperation and policy dialogue. It strengthens international mobility and cooperation between third countries and Program countries.

[65] Eiropas zaļais kurss (europa.eu) (*European Green Deal*)
[66] Eiropas Zaļā kursa realizācijas ietekme Latvijas lauksaimniecībā (*The impact of the implementation of the European Green Deal on Latvian agriculture*), Aleksejs Nipers, 2022, retrieved from: S430_A_Nipers_22-00-S0INV05-000013.pdf (llu.lv)
[67] Erasmus Charter for Higher Education, Eiropas Komisija (*European Commission*), retrieved from: https://erasmus-plus.ec.europa.eu/resources-and-tools/erasmus-charter-for-higher-education

Objectives of Erasmus+ program[68]:

- to promote learning mobility of individuals and groups in the field of education;
- to promote cooperation, quality, inclusion and equity, excellence, creativity and innovation at the level of organisations and policies in the field of education and training, youth and sports.

Main horizontal priorities of the Erasmus+ program[68]:

- Inclusion and diversity;
- Environment and fight against climate change;
- Digital transformation;
- Participation in democratic life, common values and civic engagement;
- Promotion of multilingualism;
- Recognition of skills and qualifications.

Main priorities of the Erasmus+ program in higher education[68]:

- To ensure that graduates of higher education institutions have acquired the skills they need for life in today's economic conditions;
- To create an inclusive higher education system;
- To ensure that higher education institutions can contribute to the promotion of social and economic growth;
- To support higher education institutions and national administrations in using the full potential of available human and financial resources;
- To promote structured and strategic cooperation between higher education institutions, supporting and testing different cooperation models (e.g. partially or fully virtual cooperation, use of various digital tools and platforms);
- To improve the mobility of individuals, promoting automatic and mutual recognition of qualifications and learning outcomes and facilitating the inclusion of mobility periods in study programs;
- To support higher education institutions in implementing the Bologna process and in processes that will promote more inclusive mobility;
- To support higher education systems and institutions to develop and emphasize the environmental sustainability aspect in education.

3.2.5 Strategic investment programs

The European Fund for Strategic Investments (hereinafter – EFSI) offers universities a wide range of development opportunities to promote economic development, innovation

[68] Erasmus+, Eiropas Komisija (*European Commission*), retrieved from: https://erasmus-plus.ec.europa.eu/lv/programme-guide/part-a/priorities-of-the-erasmus-programme/objectives-features

and competitiveness in the EU. The current areas at DU where support is provided by EFSI include[69]:

- Financial support for infrastructure improvements, such as laboratory modernization, technology implementation and sustainability measures, as well as research infrastructure, international cooperation, innovation promotion and entrepreneurship development in the university environment.

- Support for international cooperation by promoting partnerships with other European and global universities.

- Support for attracting financial support from private and public investment organizations which will promote the development of universities. This can be seed capital for starting new projects, establishing start-ups or establishing a technology contact point.

- Support for improving the quality of curricula and education, including pedagogical training, development of teaching materials and introduction of technologies in the learning process.

3.2.6 The European Code of Conduct for Research Integrity

Based on the principle of academic freedom and to ensure the highest standards of scientific integrity, guidelines on scientific integrity have been established, which DU must adhere to and incorporate into the daily work. The main principles focus on three types of scientific misconduct: plagiarism, falsification of results (manipulation of research materials) and fabrication of false results (fabrication of data or results). To prevent these violations, Horizon Europe has established guidelines that highlight the provision of a supportive research environment, participation in research integrity training, support and quality control during research, support mechanisms of the research ethics body, interdisciplinarity and the process of identifying and addressing violations of scientific integrity.[70]

Horizon Europe scientific integrity requirements are based on four key principles[71]:

- **Reliability** in ensuring the quality of research, reflected in the design, methodology, analysis, and use of resources.

- **Honesty** in developing, undertaking, reviewing, reporting, and communicating research in a transparent, fair, full, and unbiased way.

[69] Eiropas Stratēģisko investīciju fonds - Consilium (europa.eu) (*European Strategic Investment Fund*)
[70] Guideline for Promoting Research Integrity in Research Performing Organisations, retrieved from: guideline-for-promoting-research-integrity-in-research-performing-organisations_horizon_en.pdf (europa.eu)
[71] The European Code of Conduct for Research Integrity, Eiropas komisija, retrieved from: european-code-of-conduct-for-research-integrity_horizon_en.pdf (europa.eu)

- **Respect** for colleagues, research participants, research subjects, society, ecosystems, cultural heritage, and the environment.

- **Accountability** for the research from idea to publication, for its management and organisation, for training, supervision, and mentoring, and for its wider societal impacts.

3.3 Global context

Based on current trends, the total number of students in higher education is projected to reach almost 380 million by 2030 (up from 230 million today), 472 million by 2035, and more than 594 million by 2040[72]. Such rapid growth may positively impact the ability of DU to attract more international students. In recent years, the fastest growth in the number of students has been observed in East Asia, but attention should be paid also to the high number of young people in Africa (in 2015, there were approximately 715 million people aged 18 to 23 in Africa). The UN predicts that this region will reach its population peak in 2030 but will continue to grow at a reduced rate thereafter[73].

There are many international foundations, organizations and programs that provide funding for research and educational projects worldwide, as well as those that are focused only on certain regions or countries. For example, there are Latvia-Ukraine Cooperation Program[74], the Latvia-Lithuania-Taiwan Scientific Cooperation Support Fund[75], EEA/Norway Grants[76], Bill & Melinda Gates Foundation[77], Ford Foundation[78], Open Society Foundations[79], Fulbright Program[80], Erasmus Mundus program[81], etc.

Analysis of cooperation partners outside the EU

The development prospects of DU in the context of non-EU countries have been analysed taking into account Latvia's international cooperation priorities, which are defined in the Development Cooperation Policy Guidelines for 2021-2027[82].

According to these guidelines, the geographical priorities will continue to be the EU Eastern Partnership countries (e.g. Georgia, Moldova, Ukraine and Belarus) and the

[72] Study projects dramatic growth for global higher education through 2040 - ICEF Monitor - Market intelligence for international student recruitment
[73] Higher education figures at a glance, UNESCO, 2022, retrieved from: F_UNESCO1015_brochure_mech_EN
[74] Latvijas – Ukrainas sadarbības programma | Latvijas Zinātnes padome (lzp.gov.lv) (*Latvia-Ukraine cooperation program*)
[75] Latvijas–Lietuvas–Taivānas zinātniskās sadarbības atbalsta fonds | Latvijas Zinātnes padome (lzp.gov.lv) (*Latvia-Lithuania-Taiwan scientific cooperation support fund*)
[76] Visas programmas - EEZ un Norvēģijas finanšu instrumenti (eeagrants.lv) (*EEA and Norwegian financial mechanisms*)
[77] University funding by the Bill & Melinda Gates Foundation — UniversityPhilanthropy.com
[78] Ford Foundation university funding — UniversityPhilanthropy.com
[79] Grants and Fellowships from the Open Society Foundations - Open Society Foundations
[80] Fulbright-Schuman European Union Affairs Program | Fulbright Scholar Program (fulbrightscholars.org)
[81] Erasmus Mundus Catalogue (europa.eu)
[82] Par Attīstības sadarbības politikas pamatnostādnēm 2021.–2027. gadam (likumi.lv) (*On the Development Cooperation Policy Guidelines for 2021–2027*)

Central Asian countries (e.g. Kyrgyzstan, Tajikistan and Uzbekistan). However, it is important to note that Latvia is also, for the first time, prioritising support to other regions, in particular African countries, to promote global public benefits and address global challenges. In addition, Latvia continues to support the least developed countries in line with its official development assistance commitments.

Taking into account the partner countries' need for support in specific areas, DU can provide technical support, expertise, training and research opportunities to partner countries in the following areas:

- **Strengthening public administration capacity and the rule of law**: DU can provide the technical and scientific support needed to improve the efficiency and effectiveness of public administration in partner countries. This includes developing curricula and organizing training for public administration staff, as well as advising on best practices in public administration and promoting the rule of law.

- **Entrepreneurship development**: DU can offer knowledge and expertise gained in economics and business science programs that can contribute to the creation and development of a business environment in partner countries. This includes promoting innovation, developing business strategies, training in business management, and creating new businesses.

- **Promoting democratic participation**: DU can offer political and social science programs that promote democratic participation and the development of civil society. This may include the development of educational programs on democracy, human rights, and civic engagement, as well as research projects and analyses on the promotion of democracy and the development of policy processes.

In 2015, UN member states agreed on the 2030 Agenda for Sustainable Development. This document defines 17 sustainable development goals, which cover various aspects and challenges that need to be addressed to achieve a sustainable and prosperous future, including poverty reduction, reducing inequality, improving access to health services and education, and sustainable resource management (Table 3).

Table 3. Actions of DU in meeting the UN Sustainable Development Goals [83]

No	UN Sustainable Development Goals	Examples of DU actions
1.	Eradicated poverty	Prepares specialists who will be employed (81.4% of DU graduates are employed in 2020)

[83] ANO Ilgtspējīgas attīstības mērķi (*UN Sustainable Development Goals*), retrieved from: ANO Ilgtspējīgas attīstības mērķi | Pārresoru koordinācijas centrs (pkc.gov.lv)

No	UN Sustainable Development Goals	Examples of DU actions
2.	Eliminated hunger and sustainable agriculture	DU offers the study programs “Environmental Science” and “Environmental Planning”, conducts research in the fields of agriculture
3.	Good health and well-being	DU provides the health care programs “Nursing” and “Physiotherapy”
4.	Quality education	Positive student and graduate feedback on studies and relatively high graduate employment
5.	Gender equality	66% of academic staff are women
6.	Clean water and sanitation	Conducts research related to water
7.	Affordable and renewable energy	Uses electrical equipment for everyday needs, introduces energy efficiency improvements in university buildings
8.	Decent work and economic growth	DU’s contribution to the Latvian economy and the development of Latgale and Sēlija regions
9.	Industry, innovation and infrastructure	Research in engineering sciences, training professionals who will be able to create and maintain sustainable infrastructure
10.	Reduced inequalities	DU provides equal educational opportunities for all students, and DU has access to state-funded study places
11.	Sustainable cities and communities	Conducts research focused on the needs of Latgale and Sēlija regions
12.	Responsible consumption and production	DU has made significant energy efficiency improvements in its building, reducing overall consumption

No	UN Sustainable Development Goals	Examples of DU actions
13.	Climate action	Conducts research, emissions reduction through electric cars, potentially introducing new courses on sustainability issues
14.	Life below water	Research in the field of aquaculture
15.	Life on land	Research in the fields of parasitology, entomology and botany
16.	Peace, justice and strong institutions	DU offers a lifelong learning video course on conflict resolution and a study program in Civil Protection
17.	Partnership	Participation in international consortia and networks, cooperation with institutions in other countries

DU will continue to systematically monitor and analyse the link between of its activities and the UN Sustainable Development Goals, preparing annual public reports on the implementation of the strategy and linking performance in the implementation of each goal to THE Impact Rankings, which assesses the impact of universities on the Sustainable Development Goals.[84]

3.4 Assessment of the dimensions of growth and profitability of Daugavpils University's market share

Higher education: DU has successfully responded to the changing demands of the market by offering a wide range of study programs in line with the demand for higher education. Its flexible approach to programs and specialisations has attracted both local and international students, contributing to the growth of the university's market share. Based on the evaluation from DU students and graduates, as well as the overall distribution of students' place of residence, DU is a respected higher education institution on a local and regional scale, with not only residents of Daugavpils choosing to study at DU, but also residents from LPR, Riga and other regions. DU plays an important role in several specific areas of education, which appear in the distribution of the number of students by region in accordance with the strategic specialisation areas defined by DU: Natural Sciences (Environmental Protection (41%), Life Sciences (13%)), Humanities

[84] Impact Rankings 2023 | Times Higher Education (THE)

(Humanities (13%)), Social Sciences (Education (12%))[85]. In 2022, 23% of all Latvian graduates at bachelor's degree (including professional) level in the field of health care and social welfare obtained a DU degree or qualification. The relevant DU study programs are Physiotherapy and Nursing. DU also plays a significant role in preparing graduates in the natural sciences, as in 2022, 13% of all Latvian doctoral degree holders graduated from DU. The relevant DU study programs are Biology and Mathematics. Additionally, DU has a significant proportion of doctoral degree holders in the Humanities (19% of all Latvian graduates), in the programs History and Archaeology and Literary Studies, as well as a significant proportion of Master's degree holders (including professional) un graduates from first-level professional higher education (college) (19% and 17% of all Latvian graduates, respectively) in programs Education Science, Education, Teacher, Career Counsellor, Youth Affairs Specialist and Preschool Teacher.[86][99] However, it is important to develop the international student base, as well as promote cooperation with entrepreneurs and industries, in order to ensure sustainable development of the higher education field and further growth and profitability of the market share.

Lifelong learning: DU offers several lifelong learning programs in the Humanities and Arts and Social Sciences, but currently there are no programs in the Natural Sciences. In addition, DU's study environment provides modular curricula, including jointly with other universities, where students have the opportunity to study only part of the DU study program. This approach is simpler from a legal perspective, as the creation of a joint programme requires more resources**Error! Bookmark not defined.**. However, it is necessary to expand and diversify the offer, taking into account the current industry trends and technological innovations, to maintain and increase the university's profitability in this area, for example, by introducing the Open University concept, which will allow the public to attend courses as listeners.

Research: DU is known for its high-quality scientific research and knowledgeable scientific staff, as indicated by the 2019 IESIA rating for DU overall – 3. DU was awarded a particularly high rating in the Regional Studies, Literature and Art Research Program, obtaining a rating of 4 (very good), with IESIA assessing the development potential of this programme with a rating of 5. In addition, profitability is evidenced by involvement in Horizon Europe projects and the availability of unique research resources[95]. In order to further increase profitability in this area, it is necessary to continue to promote research projects and collaborations with companies, national and international organisations, as well as to ensure better resources and funding for scientific activity.

Knowledge-intensive services: DU provides services in all three strategic specialization areas, however, the largest number of contract work is in Natural Sciences related to environmental protection, sustainable natural resource management and aquaculture. Taking into account the priorities indicated in the Development Cooperation Policy Guidelines for 2021-2027[82], DU can expand its service base in Humanities and Arts and Social Sciences by providing services in an international environment, for

[85] IZM dati par studējošo skaita sadalījumu pa reģioniem un izglītības tematiskajām jomām (*MoES data on the distribution of the number of students by regions and thematic fields of education*), retrieved from: https://titania.saeima.lv/livs/saeimasnotikumi.nsf/0/383B0E83E4226473C2258966004EBC9E?OpenDocument

[86] Data compiled by DU (Degree or qualification holders by study program in CSB tables)

example, strengthening public administration capacity and the rule of law, promoting democratic participation and entrepreneurship.

A more detailed overview of the dimensions of DU's market share growth and profitability in the areas of higher education, lifelong learning, research and knowledge-intensive services is provided in Chapter 4 of the Strategy.

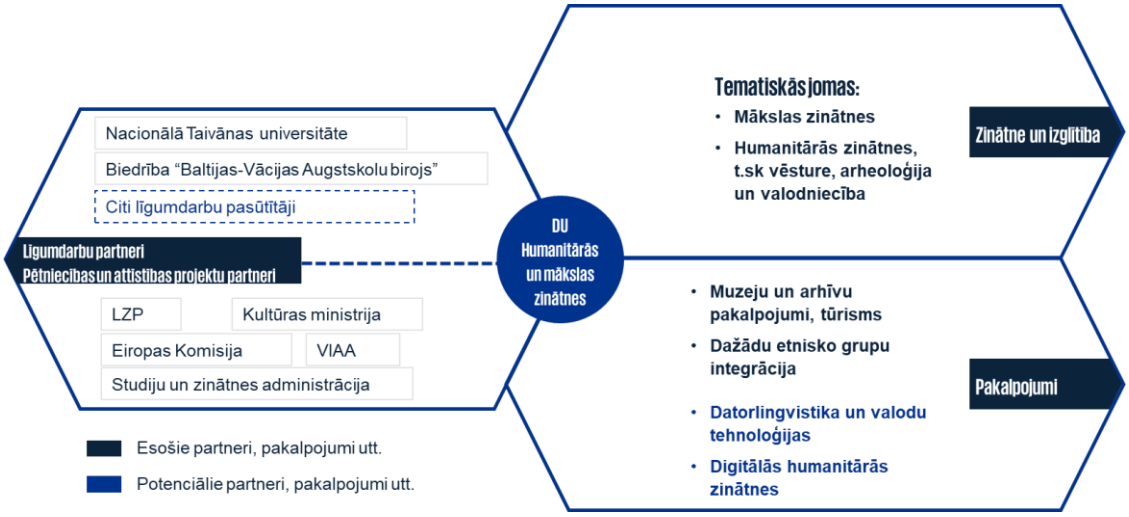
4. Identification of the specific niche (specialization) of Daugavpils University in the European space of studies and scientific activity

Niches are reviewed as per strategic specialization areas (Humanities and Arts, Natural Sciences, Social Sciences) of DU, analysing the assessment of DU's market share growth and profitability dimensions in the fields of higher education, lifelong learning, science, research and knowledge-intensive services at the national, EU and international level.

Humanities and Arts

The ecosystem of the strategic specialization area "Humanities and Arts" is formed by humanities and arts fields.**Error! Bookmark not defined.** It is possible to identify the education and research directions where DU has the most outstanding results – 2019 IESIA highlighted the high quality of publications in History and Archaeology, Linguistics and Arts. In this specialization area in 2017-2022, DU had scientific projects with the National Taiwan University and the association "Baltic-German Higher Education Office" generating a total revenue of EUR 4,815, as well as involvement in various research and development projects, primarily collaborating with the VIAA, the Administration of Studies and Science, the European Commission, the Ministry of Culture, Latvian Council of Science and other national and international institutions.[101]

Figure 11. Ecosystem of Humanities and Arts at DU



In this area of higher education, the strongest areas and study programs with the highest market share, growth and profitability potential are:

- **Literature Studies and Philology** (as per data of the doctoral study program in Literature Studies for the 2021/2022 academic year and the academic bachelor's and master's programs in Philology (including English, Russian and Latvian) study program for the 2021/2022 academic year) – of the total number of graduates of the

study program “Literature and Linguistics[87]” (according to the Cabinet of Ministers' regulations on the classification of Latvian education[88]) in Latvia, 89% graduated from DU[99]; 15% of students in Literature Studies are mobile students, 5% of students in Philology programs are mobile students; 7% of students in Literature Studies and 5% of students in Philology programs are fee-paying students.

- **History** (as per the data from academic bachelor's and academic master's programs in History and doctoral studies in History and Archaeology, 2021/2022 academic year) – of the total number of graduates of history programs in Latvia, 18% graduated from DU.

- **Art and Art Management** (as per the data from the 2nd level professional higher education programs, 2021/2022 academic year) – of the total number of graduates of the study program “Visual Plastic Art” (according to the Cabinet of Ministers’ regulations on the classification of Latvian education[89]) in Latvia, 7% graduated from DU in 2022[99]; 11% of students in the program are fee-paying students;

- **Eastern European Cultural and Business Relations** (as per the data from academic bachelor's program, 2021/2022 academic year) – according to the relevant program code, 4.6% of graduates of the study program “Language and Culture Studies” (in line with the Cabinet of Ministers' regulations on the classification of Latvian education[90]) complete studies at DU[99]; 41% of those studying in the program are fee-paying students, 41% of those studying in the program are mobile students and this program overall has the biggest proportion of mobile students (compared to the total number of mobile students) – 16%.[91]

In 2017-2022, DU services in Humanities and Arts have been provided in the field of literature and culture. Most projects are related to the Social Sciences and Humanities sector with a horizontal impact on RIS3 areas[101]. This area of specialization has the lowest revenue from knowledge-intensive services. However, the identified smart specialization areas create an opportunity to further develop the following interdisciplinary topics:

- Computational Linguistics and Language Technology;

- Digital Humanities.

DU offers lifelong learning programs in the format of video lectures in areas such as Acting and Conflict Resolution[92], as well as a youth interest education school, the

[87] Note: The high proportion is explained by the fact that the Literature and Linguistics education program code was used in the previous Latvian education classification and no longer exists after the new classification, but there are study programs that are still accredited with this code, CSB
[88] Noteikumi par Latvijas izglītības klasifikāciju (likumi.lv) (*Regulations on the Classification of Latvian Education*)
[89] Noteikumi par Latvijas izglītības klasifikāciju (likumi.lv) (*Regulations on the Classification of Latvian Education*)
[90] Noteikumi par Latvijas izglītības klasifikāciju (likumi.lv) (*Regulations on the Classification of Latvian Education*)
[91] Information compiled by DU in CSB tables
[92] AUGSME - Sākumlapa (mozello.lv) AUGSME - Sākumlapa (mozello.lv)

Humanities Academy for Youth[93]. In the future, lifelong learning programs could be developed in accordance with the identified strong existing and potential areas (in addition to ICT lifelong learning programs that would allow students to specialize in the areas of digital technology and innovation), ensuring education that meets the needs of society and industry.

Natural Sciences

The ecosystem of the strategic specialization area "Natural Sciences" is formed by the fields in science and education determined by the Ministry of Education and Science, which were approved at the meeting of the DU Council on 28 April 2022[94]. The area of specialization in Natural Sciences (in education and science) is divided into four thematic fields – life sciences, physical science, mathematics and statistics, environmental health and healthcare. It is possible to identify the education and research directions where DU has the most outstanding results – 2019 IESIA highlights the quality of research in such fields of life sciences as entomology, as well as biosystematics, ecology, parasitology, nanobiotechnology, aquaculture and botany[95] (Figure 12). Within the framework of research and development projects, DU most often collaborated with LCS, VIAA, RSS, MoSARD, the European Commission, EC LIFE and others**Error! Bookmark not defined.**. In general, there are many cooperation partners, however, there are also opportunities to increase their number in the future, considering the growing importance of nature protection, climate change mitigation, etc. for the implementation of the Green Deal priorities in the public and private sectors.

Figure 12. Ecosystem of Natural Sciences at DU

[93] Humanitārā akadēmija jauniešiem > Daugavpils Universitāte (du.lv) Humanitārā akadēmija jauniešiem > Daugavpils Universitāte (du.lv) (*Humanities Academy for Youth, Daugavpils University*)
[94] Daugavpils Universitāte (*Daugavpils University*): 3_DU_padomes_protokols_28.04.2022..pdf
[95] IZM (*MoES*): Zinātnisko institūciju starptautiskā novērtējuma rezultāti

The ecosystem of Natural Sciences at DU is also formed by various international scientific consortia and networks, such as:

- CERN Baltic Group[96] – one of the CERN groups in the physics research organization, which unites researchers, academic and industrial partners from the Baltic States;

- GBIF[97] – an international organization that provides public access to data on biodiversity worldwide;

- CETAF[98] – a consortium of European taxonomic authorities, which aims to promote cooperation and coordinate work between taxonomic authorities to improve the study, conservation and discovery of biodiversity in Europe.

In this area of higher education, the strongest areas and study programs with the highest market share, growth and profitability potential are:

- **Biology** (as per the data from all levels of education – academic bachelor, academic master and doctoral studies, 2021/2022 academic year) – 13% of graduates of Biology programs in Latvia graduated from DU[99]; 27% of all DU doctoral students studied Biology program; 9% of students in Biology programs were foreign students[100];

- **Environmental Protection** (as per the data from the 2nd level professional higher education program Environmental Planning and the academic bachelor program Environmental Science, 2021/2022 academic year) – 35% of graduates of Environmental Protection study programs in Latvia obtained their degrees from DU[99];

- **Nursing** (as per the data from the 2nd level professional higher education program Nursing, 2021/2022 academic year) – 19% of the total number of DU students studied Nursing, which is the largest proportion among all level programs[64], in addition, 37% of Nursing study program graduates in Latvia obtained their degree from DU[99]; 1.5% of Nursing students were foreign students[72];

- **Physiotherapy** (as per the data from the 2nd level professional higher education program Physiotherapy, 2021/2022 academic year) – Physiotherapy study program has the largest proportion of fee-paying students at DU – 23.7%[64] of the total number of fee-paying students and 17% of students in the program; 3.4% of all Latvian Physiotherapy graduates obtained a degree from DU[99].

In 2017-2022, the most demanded DU knowledge-intensive services were in the fields of environmental protection, sustainable natural resource management and aquaculture. These projects are directly linked to the smart specialization area “Knowledge-intensive

[96] CERN Baltic Group
[97] Daugavpils University (gbif.org)
[98] Consortium of European Taxonomic Facilities - CETAF
[99] OSP: Augstskolās un koledžās studējošie, uzņemtie un grādu ieguvušie pēc dzimuma un izglītības programmu grupas (*Students, enrolled and degree holders in higher education institutions and colleges by gender and educational program group*)
[100] Information provided by DU.

Bioeconomy", which accounted for 74% of the total number of projects in 2018-2022[101]. The identified smart specialization areas create an opportunity to further develop the following interdisciplinary topics:

- Biomedicine;
- Smart materials, technology and engineering systems;
- Information and communication technology (hereinafter – ICT)[102], etc.

In the field of Natural Sciences, DU has collaborated on the basis of contract work with JSC Latvia's State Forests, Nature Conservation Agency, Association "Daugavas savienība", Jēkabpils Regional Municipality, Daugavpils City Council, "EAD" Ltd., "Conelum" Ltd., and "TENACHEM" Ltd. in 2017-2022, generating a total revenue of 724,390 EUR, which is the highest revenue among the areas of specialization.

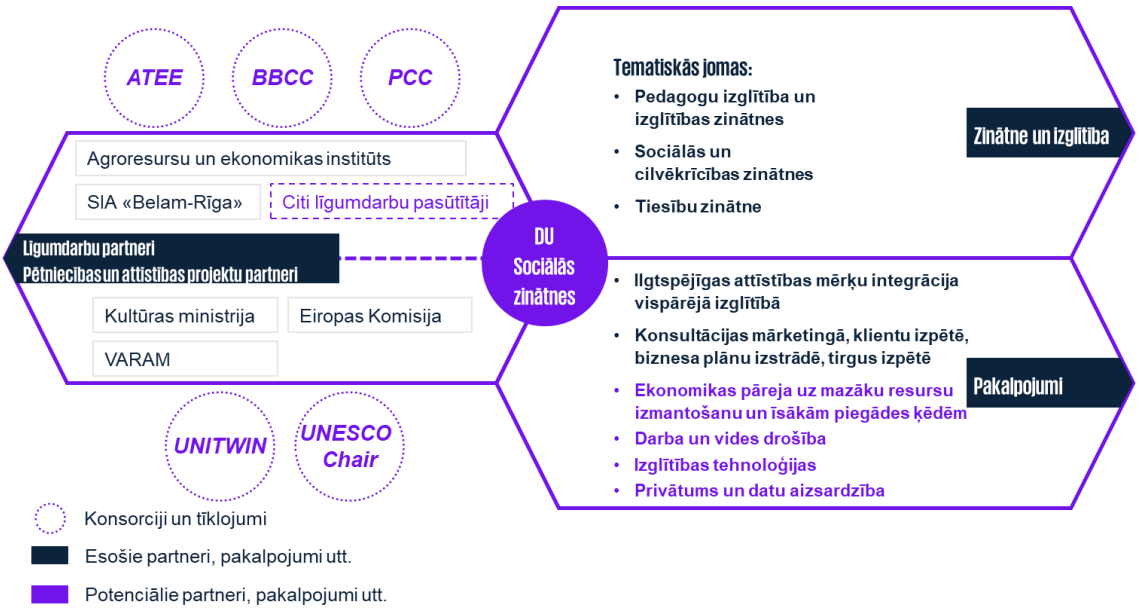
Currently, there are no lifelong learning programs available in the field of Natural Sciences, but to complement the existing ecosystem, it is possible to further develop this field in areas such as nature conservation and taxonomy (EU taxonomy for sustainability[103]), which could become popular topics in the business environment in the next five years.

Social Sciences

The ecosystem of the strategic specialization area "Social Sciences" is divided into three thematic fields – teacher education and education science, social science and law[9]. It is possible to identify the education and research directions where DU has the most outstanding results – 2019 IESIA highlights research programs in Sustainable Education, Regional Economy, Sociology and Security[95]. Most of the projects are related to the Social and Humanities sectors with a horizontal impact on RIS3 areas[31], but some are also related to ICT. Within the framework of research and development projects, DU has collaborated with MoSARD, the Ministry of Culture and the European Commission[101] (Figure 13).

[101] NZDIS: Publicētie zinātnisko institūciju pārskati par zinātnisko darbību (*Scientific Institutions' Reports on Scientific Activity*)
[102] IZM (*MoES*): Viedās specializācijas stratēģija (*Research and Innovation Strategy for Smart Specialization*)
[103] EUR-Lex - 4481971 - EN - EUR-Lex (europa.eu)

Figure 13. Ecosystem of Social Sciences at DU



The ecosystem of Social Sciences at DU is also formed by various international scientific consortia and networks, such as:

- UNESCO (United Nations Educational, Scientific and Cultural Organization) Chair "Tradition and Innovation for Sustainable Development" UNITWIN (University Twinning and Networking scheme)/UNESCO Chairs program. The aim of the Chair is to promote integrated research, training, dissemination of information and the creation of a documentation system to support sustainable development in the field of education[104];

- BBCC (Baltic and Black Sea Circle Consortium in Educational Research), founded with the aim of reorienting teacher education towards the goal of sustainability in the Baltic and Black Sea regions[104];

- PCC (The Pacific Circle Consortium), the main task of the consortium is to promote international and intercultural understanding and cooperation between countries in and around the Pacific[105];

- ATEE (Association for Teacher Education in Europe), which ensures cooperation between educational professionals and educational researchers across Europe[106].

In this area of higher education, the strongest areas and study programs with the highest market share, growth and profitability potential are:

[104] Unesco Chair > Daugavpils Universitāte (du.lv)
[105] Pacific Circle Consortium - Home
[106] ATEE - Association for Teacher Education in Europe

- **Civil Security and Protection** (according to the regulations of the Cabinet of Ministers, classified as “Protection of Persons and Property” [89]; as per the data from the 1st level professional higher education program Civil Security and Protection, 2021/2022 academic year) – 16% of the total number of graduates in Latvia in this program graduated from DU, and 5.7% of all students at DU studied in this study program[64].

- **Education Science and Teacher Education** (compiling data according to the classification for such programs as Preschool Teacher (1st level professional higher education), Education (2nd level professional higher education), Teacher (2nd level professional higher education) and Education Science (academic master's degree, doctoral studies), 2021/2022 academic year) – DU prepares 6% of the total number of graduates in Latvia in this field[99]. The doctoral study program “Education Science” has the highest number of full-time foreign students in the fields of Social Sciences[64].

In 2017-2022, the most demanded DU services in Social Sciences have been related to the integration of sustainable development goals into general education, marketing consulting, customer research, business plan development and market research. The identified smart specialization areas create an opportunity to further develop the following interdisciplinary topics:

- Economic transition towards less resource use and shorter supply chains;

- Occupational and environmental safety

- Educational technology;

- Privacy and data protection, etc.

In the field of Social Sciences DU has collaborated on the basis of contract work with “Belam-Rīga” Ltd. and the Institute of Agricultural Resources and Economics, etc., in 2017-2022, generating a total revenue of 16,853 EUR.

DU offers lifelong learning programs for the improvement of professional competence of teachers (7 courses). In the future, lifelong learning programs could be developed in accordance with the identified strong existing and potential areas, ensuring education that meets the needs of society and industry.

5. Strategic action directions

Using a diverse list of sources, as well as various data collection and analysis methods, an assessment of the DU's current situation was conducted and the main conclusions were drawn. These were prepared by involving various stakeholders, ensuring a comprehensive and detailed feedback on the operation of DU. SWOT conclusions[107] were further synthesized to identify action strategies that can be used to develop a DU implementation plan (see Appendix No 3). This chapter provides a summary of the main conclusions.

5.1 Studies

DU is a significant educational centre in the city of Daugavpils and Latgale Region, capable of preparing educated specialists in DU strategic specialization areas, ensuring a high level of graduate employment and further learning opportunities after graduation. Considering the proportion of DU students, DU plays a significant role (over 10% of all Latvian students) in several specific thematic fields of education that correspond to DU's strategic specialization areas: Natural Sciences (environmental protection (41%), Life Sciences (13%)); Humanities (humanities (13%)); Social Sciences (Teacher Education (12%))[99]. DU has the opportunity to develop cooperation with local entrepreneurs to provide them with specialists in demanded professions and to provide its graduates with professions demanded in the market and student-centred education.

DU attracts students not only from Latgale Region, but also from other regions of Latvia and abroad. Although 85% of the students admitted in 2022 were from the LPR, 7% of the students lived in Riga and 5% lived in the Kurzeme Planning Region. In 2018, 81% of the students admitted were from the LPR, 6% from the Zemgale Planning Region and 4% from Riga. The modular system introduced by DU ensures the attraction of additional students, especially from abroad, therefore it is justified to further develop the availability of education in a short-term format. In order to continue to increase the proportion of foreign students, DU uses the European study program database, which allows highly interested students from outside the EU to easily apply for DU study programs.

Despite a relatively good employment rate, the income of DU graduates is lower in comparison to all the other universities included in the analysis, including regional higher education institutions. It also significantly lags behind the national average. The indicator "Number of doctoral graduates per one scientific staff FTE in 2019" shows a good result for DU – it is higher than the national average, and, among universities, only RSU and LBTU have a higher indicator (Table 3).

[107] Appendix No 3

Table 4. Indicators characterizing the impact of DU studies (Source: LR MoES Statistics on Higher Education, LR MoES Careers of Graduates of Higher Education Institutions 2020)

Higher education institution	Proportion of foreign students in 2020	Graduate employment in 2020 (for 2019 graduates)	Weighted average income of graduates in 2020 (for 2019 graduates)	Number of doctoral graduates per 1 FTE of scientific staff, 2019
DU	1.8%	81.9%	11,628 EUR	0.11
Universities of science				
LBTU	3.4%	89.6%	16,738 EUR	0.18
LU	4.8%	86.4%	17,606 EUR	0.07
RSU	25.6%	76.3%	20,550 EUR	0.14
RTU	12.1%	80.9%	20,443 EUR	0.08
Other regional higher education institutions				
LiepU	2.2%	83.9%	13,470 EUR	0.07
RTA	4.7%	85.3%	13,633 EUR	0.07
VeA	4.4%	76.6%	21,070 EUR	0.03
ViA	0.7%	79.2%	11,752 EUR	-
Average in Latvia	12.7%	82.4%	17,338 EUR	0.06

Currently, DU has a high fragmentation of study programs, with several programs having low number of students, which makes it difficult to effectively allocate resources at the university. The strategic specialization areas determined by MoES will allow DU to

assess the priority of programs and focus only on important and profitable programs, consolidating less important ones, as well as to prioritize research fields.

Based on the analysis of the DU operational framework and the current situation, the following strategic tasks are defined in the study development section:

- **Student-centred education**, including strengthening transversal skills in all educational programs, such as cooperation skills, emotional intelligence, etc., introduction of support mechanisms to promote entrepreneurship among students;
- **Study environment**, including development of work-based learning approaches in professional higher education programs, student attraction measures, improvement of the digital study environment, development of students' digital skills for a study process of higher quality;
- **Program development**, including implementation of the new doctoral model, implementation of interdisciplinary and international study programs, evaluation of program priorities and focusing on the most demanded programs in each of the strategic specialization areas, development of the offer of lifelong learning programs;
- **Participation in the activities of the European University Association**, including strengthening the role of DU in society, for example, by promoting the achievement of the UN Sustainable Development Goals (see section 3.3) and prioritizing the activities of the European Green Deal, strengthening communication with cooperation partners and the media, following the latest trends and changes, consulting with the association members, engaging in the "Horizon Europe", "Erasmus+" and "European Universities Initiative" programs, promoting the investment of European structural and investment funds in universities as an important component of regional development, supporting all academic disciplines (including creative industries), as well as interdisciplinarity, promoting capacity in governance and among employees, supporting the principles of Open Science, academic integrity and quality, creating an inclusive environment that leads to student-centred education[108];
- **Internationalization**, including attracting foreign students to programs of all study levels, expanding staff involvement in outgoing mobility activities, organizing international doctoral training programs in all doctoral study programs;
- **Promoting pedagogical excellence**, including the development of the efficiency and quality of inter-faculty cooperation in synergy with areas of specialization, the introduction of a new academic career model, expanding cooperation with other Latvian higher education institutions, as well as with general and vocational education institutions, developing competencies (especially digital, communication, foreign language competencies, etc.), increasing the long-term attraction of highly qualified employees.

[108] EUA Strategic Plan, retrieved from: eua strategic plan final.pdf

5.2 Scientific activity

Scientific activity of DU is identifiable in several international university rankings, where it appears alongside other major Latvian universities. Good achievements are also evidenced by the International Evaluation of Scientific Institutions' Activity in 2019, where DU received a good average rating for its research programs, corresponding to the national average. DU has a broad scientific resource base, but further consolidation of scientific resources in areas of strategic specialization and determining the priorities of research fields can provide even greater potential for research and innovation and cooperation with industry, thus promoting the economic development of the region.[109]

According to the results of the analysis[109], DU ranks alongside other universities of science in several international rankings. In the U-Multirank university assessment, DU ranks third together with LBTU in terms of points, with only RTU and RSU receiving higher ratings. DU has the highest ratings for interdisciplinary publications, as well as its research publications in general. Although the overall citation rate of publications is not as high due to specific research topics, DU has a higher citation rate than LBTU (Table 4).

Table 5. Indicators characterizing the impact of DU scientific activity (Sources: IESIA, QS, SCImago and U-Multirank ratings)

Higher education institution	Average rating of scientific institutions (weighted by the volume of the assessed units FTE), 2019	Rating in the QS EECA University Rankings 2022	Citation of publications according to the QS EECA University Rankings 2022	Rating in the SCImago Institutions Rankings 2023	U-Multirank university assessment points 2022
DU	3	241-250	4,2	7915	10
Universities of science					
LBTU	3	241-250	2.3	5712	10
LU	3	40	51.6	4439	6
RSU	4	119	94.2	5411	12

[109] Appendix No 3

Higher education institution	Average rating of scientific institutions (weighted by the volume of the assessed units FTE), 2019	Rating in the QS EECA University Rankings 2022	Citation of publications according to the QS EECA University Rankings 2022	Rating in the SCImago Institutions Rankings 2023	U-Multirank university assessment points 2022
RTU	4	57	11.6	4490	15
Other regional higher education institutions					
LiepU	2	-	-	-	9
RTA	2	-	-	-	9
VeA	2	-	-	-	4
ViA	3	-	-	-	-
Average in Latvia	3 (public universities that had more than 1 evaluable unit)	-	-	-	7.2

In addition, DU is involved in ERA-NET funded projects, as well as other scientific activities, including:

- Modelling Approaches to Guide Intelligent surveillance for the sustainable Introduction of novel Antibiotic (MAGIcIAN) (2022, EUR 79,363, ERA-NET funding);
- A socio-ecological evaluation of wetlands restoration and reintroduction programs in favour of the emblematic European pond turtle and associated biodiversity: a pan-European approach (2022, EUR 71,850, ERA-NET funding);
- Promoting cross-sectoral cooperation between research and industry (2020-2021, EUR 134,372);

- A living History: cultural and scientific synergy in the border region Zarasai (LT) - Daugavpils (LV) - Vitebsk (BY) for sustainable development (2021-2022, EUR 77,436);
- Development of Research Infrastructure in Smart Specialisation Areas and Strengthening of Institutional Capacity at Daugavpils University (2017-2018, EUR 529,341, ERDF funding);
- Support for the implementation of Daugavpils University scientific innovations and promotion of international research capacity (2018, EUR 19,551, ERDF funding);
- Improving Daugavpils University management and leadership competencies (2018, EUR 31,381, ESF funding).

DU mostly cooperates with state institutions – in 2017-2022, research projects funded by state institutions accounted for approximately 79% of all projects. The most frequent cooperation has been with the VIAA, Nature Conservation Agency and LCS. A relatively small proportion of contract work is with private companies and other Latvian municipalities. Based on the priorities of key technology[110] and the demand for various research from both companies and municipalities, DU has the opportunity to establish systematic cooperation with these stakeholders, thus promoting the attraction of contract work in the future.

Positive trends in the development of science are marked by the increasing activity of DU in Horizon Europe projects and other local and international projects. Although DU has not had the opportunity to assume the role of a lead partner or coordinator in international projects due to a lack of professional capacity, the creation of a team of competent specialists could provide DU with opportunities to assume leading roles in local and international projects.

Based on the analysis of the DU operational framework and the assessment of the current situation, the following strategic tasks are defined for the scientific activity:

- **Priority research directions**, including balanced development in all strategic specialization areas, development of the efficiency and quality of interfaculty cooperation in synergy with specialization areas, increasing involvement in the project competitions of the EU research framework program by equally developing all strategic specialization areas, regular identification of research needs according to the area, strengthening involvement in scientific networks;
- **Cooperation in the national and international scientific community**, including preparation of joint EU-wide projects, strengthening involvement in scientific networks, strengthening the capacity of the UNESCO Chair, popularization of science in society, including among students and young people;
- **Interdisciplinarity**, including development of a portfolio of research services, implementation of research that addresses issues relevant to the specifics of Latgale and Sēlija regions;

[110] Section 3.2.2. of DU Strategy

- **Technology transfer and innovation**, including establishment of a technology transfer contact point, increasing the number of private sector partners in the areas of strategic specialization of DU.

5.3 Lifelong learning and services to society

When planning a medium-term strategy until 2028, it is important to take into account the amendments made to the Law on Higher Education Institutions since 2021, as they include a broader focus of higher education institutions on lifelong learning[111]. Consequently, DU needs to improve the lifelong learning centre both in terms of management and content (program development), ensuring a competitive lifelong learning provision in line with labour market demand in all three strategic specialization areas and the institutional modernization. Currently, DU offers lifelong learning programs in the format of video lectures in areas such as Acting and Conflict Resolution[112], as well as a youth interest education school, the Humanities Academy for Youth, is available[113] and lifelong learning programs are offered for the improvement of professional competence of teachers (7 courses). Currently, there are no lifelong learning programs available in the field of Natural Sciences, but to complement the existing ecosystem, it is possible to further develop this direction in areas such as nature conservation and taxonomy (EU taxonomy in the field of sustainability[114]), which could become popular topics in the business environment in the next five years.

DU has established a Psychological Support Centre (hereinafter – PSC), which provides psychological support to students and staff in solving various daily problems[115]. The centre will help to create a student-centred environment where students are supported, as well as to promote pedagogical excellence and staff satisfaction.

Based on the analysis of the DU operational framework and the assessment of the current situation[116], the following strategic tasks are defined for lifelong learning and services to society:

- **Lifelong learning**, including the development of lifelong learning program provision, improvement of the governance of the lifelong learning centre;
- **Services to society**, including systematic analysis of the demand for professional competencies to ensure the necessary professions, popularization of science in society, including among students and young people;
- **Regional development**, including the implementation of research that addresses issues specific to Latgale and Sēlija regions.

[111] Grozījumi Augstskolu likumā - Latvijas Vēstnesis (vestnesis.lv) (*Amendments to the Law on Higher Education Institutions*)
[112] AUGSME - Sākumlapa (mozello.lv) AUGSME - Sākumlapa (mozello.lv)
[113] Humanitārā akadēmija jauniešiem > Daugavpils Universitāte (du.lv) Humanitārā akadēmija jauniešiem > Daugavpils Universitāte (du.lv) (*Humanities Academy for Youth*)
[114] EUR-Lex - 4481971 - EN - EUR-Lex (europa.eu)
[115] Daugavpils Universitātē izveidots Psiholoģiskā atbalsta centrs > Daugavpils Universitāte (du.lv)
[116] Appendix No 3

5.4 Personnel development policy

DU has a relatively balanced age structure of employees – both the proportion of academic staff aged 30-49 and the proportion of scientific staff aged 30-49 was 50% in 2022. Overall, staff turnover is low and a stable employee base has been established among DU staff, however, this also shows slow renewal of DU staff and challenges in attracting new specialists, as well as a general aging trend among employees. By not improving the provision of employee feedback and, accordingly, not improving the internal work environment, DU risks losing good and qualified employees, who might have a greater motivation to move to a better-paid job, considering the lower average salary at DU. Thus, it is necessary to continue to place greater emphasis on staff development policy in order to ensure competitive working conditions. Additionally, the attraction of foreign staff has not changed significantly in recent years. (Table 6).

Table 6. Indicators characterizing DU staff (Source: data from DU)

Year	Proportion of academic staff aged 30-49	Proportion of scientific staff aged 30-49	Proportion of foreign academic staff	Proportion of foreign scientific staff in scientific staff
2022	50%	50%	3%	3%
2021	45%	46%	3%	3%
2020	48%	50%	4%	3%
2019	51%	53%	2%	3%
2018	50%	51%	1%	2%

Based on policy planning documents, Daugavpils is a city with the potential to become an international centre of education and science, considering also the number of people living in the city. DU plays a significant role in the development of the city and Latgale Region, as DU is able to prepare sought-after specialists, attract investments, as well as to promote the quality of life of population through scientific research and cultural activities.

The new academic career framework and doctoral model developed by MoES will not only help improve the attractiveness of academic career among young specialists and encourage students to continue their doctoral studies, but will also help ensure better working conditions for employees and modernize university governance, which will, in

turn, promote the flow of new employees, including from foreign countries, and the retention of existing employees. It is also necessary to highlight that the policy-making documents have raised the issue of both the assessment of competencies in universities and the introduction of tools for their improvement in the study process. During the assessment of the current situation, it was observed that some of the staff do not use mobility opportunities because they have insufficient English language skills. Thus, DU staff have limited opportunities to engage in experience exchange and cooperation projects with other universities. Furthermore, it is necessary to invest in improving the digital competencies of employees so that the staff is able to support students and technology-based learning.

Based on the analysis of the DU operational framework and the assessment of the current situation[117], this section defines the following strategic tasks:

- **Personnel development policy**, including the promotion of pedagogical excellence and competencies (especially digital, communication, foreign language competencies, etc.), increasing the long-term attraction of highly qualified employees, introducing mechanisms for receiving employee feedback, such as surveys;

- **Internationalization**, including the increase of staff involvement in outgoing mobility.

5.5 Perspective of institutional modernization

DU actively develops cooperation with foreign institutions and participates in various projects, attracts foreign students, as well as supports the exchange of experience through employee mobility. In total, DU cooperates with 43 institutions abroad – 44% in Eastern and Western Europe, 40% in Central, South and East Asia, 9% in North America and 7% in the Middle East. Most of the established cooperations is with universities, but approximately 7% of the institutions are scientific institutions in the Natural Sciences. One of the cooperation partners is Virginia Polytechnic Institute and State University, which is included in the international university ranking Times Higher Education (hereinafter – THE) at 251st-300th place. Currently, DU offers several joint study programs with other Latvian universities, but there is an opportunity to develop international inter-university study programs that would include obtaining a dual degree.

Based on the analysis of the DU operational framework and the assessment of the current situation[117], this section defines the following strategic tasks:

- **Institutional modernization**, including improving internal information flow to be able to strategically participate in the most important project applications, building capacity for project application development and project management, engaging in negotiations with the government and MoES on issues related to the implementation of the Higher Education Reform, and introducing the recording of research infrastructure utilization load;

[117] Appendix No 3

- **Cooperation within academic centres,** including expanding cooperation with other Latvian universities, in order to increase the opportunity to conduct interdisciplinary research, develop student and faculty mobility, and promote the development of technology transfer;

- **Formation of consortia with universities and other scientific institutions**, including strengthening international cooperation with partners and forming new partnerships, strengthening involvement in scientific networks.

5.6 Provision of infrastructure modernization and availability

DU buildings are fully equipped and accessible to students with special needs. For example, the dormitory at Parādes Street 11 has ramps with safety railings at the main entrance and in the building, as well as an accessible bathroom and shower room. The teaching and laboratory buildings have accessible bathroom facilities and an elevator, information is available in Braille, the necessary lifts have been installed. At Parādes Street 1, additional equipment such as computer for reading books with a text-enlarging program and a desk with adjustable height have been installed. In 2016, DU also received the award “Education for All” from Apeirons (public organization with the goal of integrating people with disabilities in the society).

Based on the analysis of the DU operating framework and the assessment of the current situation[117], this section defines such strategic tasks as promoting the accessibility of the use of research infrastructure for contract work, regular identification of research needs.

5.7 Sustainability of operations and the university's "Green Choice"

Over the past few years, DU has made significant infrastructure improvements in buildings, largely related to energy efficiency improvement renovations and other infrastructure improvements in seven buildings (increasing the energy efficiency of the building, smart energy management and the use of renewable energy resources). This positively affects the learning process, scientific activity, and indicates the measures taken by DU to ensure a sustainable environment. Projects for increasing the energy efficiency of DU study buildings, dormitories and a sports complex have been implemented.

Various sustainability solutions are also being introduced into daily operations at DU, such as the use of solar collectors in the dormitory at Sporta Street, the use of four electric cars in daily operations, and the implementation of remote building management systems, ensuring the sustainability of DU's operations and the "Green Choice".

Investments in renovation and repair over the last 5 years (2018-2022) amounted to 6.3 million or 2.7 thousand EUR per student. This also highlights future challenges in attracting funding for infrastructure improvements, taking into account the priorities of the EU funds for 2021-2027, mainly available for human capital development activities and only for digitalization purposes in the context of infrastructure. Currently, DU offers for rent part of the study building at Parādes Street 1, which is rented by an IT company,

using it as an office for approximately 200 employees. However, DU currently also owns unused buildings (including historical buildings), which need to be used either for teaching purposes or by attracting tenants and ensuring additional income.

Based on the analysis of the DU operating framework and the assessment of the current situation, this section defines such strategic tasks as:

- **Sustainability of operations and the university's "green choice"**, including the pursuit of zero pollution, preservation and restoration of ecosystems and biodiversity;

- **Measures to ensure a sustainable environment**, including regular improvement of sustainable solutions in university buildings (effective management of the university's outdoor space, etc.), implementation of the "Green Lab" concept in DU laboratories[118].

5.8 Development of digital society and smart organization

Over the past eight years, DU has been actively working on projects with ERDF and ESF funding for the implementation of innovations, research development and equipment modernization, for example, the development of research infrastructure in smart specialization areas, modernization of information and technical equipment, modernization of laboratory equipment. The implemented projects included the development of research infrastructure in smart specialization areas and strengthening institutional capacity, modernization of STEM, healthcare and arts study programs, improvement of the efficiency of DU governance and resource management. During the Covid-19 pandemic, e-solutions necessary for quality learning were developed to ensure effective online learning. For example, within the framework of the SSG 8.2.3. project, improvements to the study administration e-environment were implemented (expansion of the functions of the Daugavpils University Information System (DUIS); improvement of the e-study environment Moodle); DUIS ensures internal document circulation with students and interacts with Moodle.

DU can offer unique opportunities for research, education and cooperation with other organizations. This is one of DU's competitive advantages, which can attract both local and foreign students and researchers, ensuring the access to infrastructure. DU has access to such databases as the Latgale Database, the Oral History Center (an archive of oral history sources available), the Biosystematics Database, and other databases, which are valuable in various studies, and which can be used to cooperate with institutions in other countries, or other interested stakeholders. Currently, the research infrastructure is not used sufficiently, therefore it is necessary to develop activities and an action plan that will help inform the public about research opportunities at DU.

It is necessary to strengthen the network of the university, as well as to take various protective measures to prevent potential cyberattacks on the DU network in the future. In addition, there is a need to involve various IT tools in all strategic specialization areas

[118] Green Lab: A Strategic Design Framework to Develop Sustainable Research Laboratories (researchgate.net)

as much as possible in teaching, having previously clearly defined how each of the areas can most effectively implement these tools in the learning process. Taking into account the latest technology trends, DU has the opportunity to consider integrating artificial intelligence into the teaching and research process[119], as well as to consider the introduction of hybrid lecture rooms to support the organization of high-quality online events or training. One of the key elements of the Latvian Education Development Guidelines for 2021-2027[120] is an individualized learning approach, in which technologies are actively used to provide individualized learning solutions.

Based on the analysis of the DU operating framework and the assessment of the current situation, this section defines such strategic tasks as: improving the digital study environment and developing students' digital skills for a study process of higher quality and implementing the principles of data openness, as well as strengthening the cybersecurity and performance of IT network, and improving the range of services and products of the IT centre.

5.9 Governance modernization

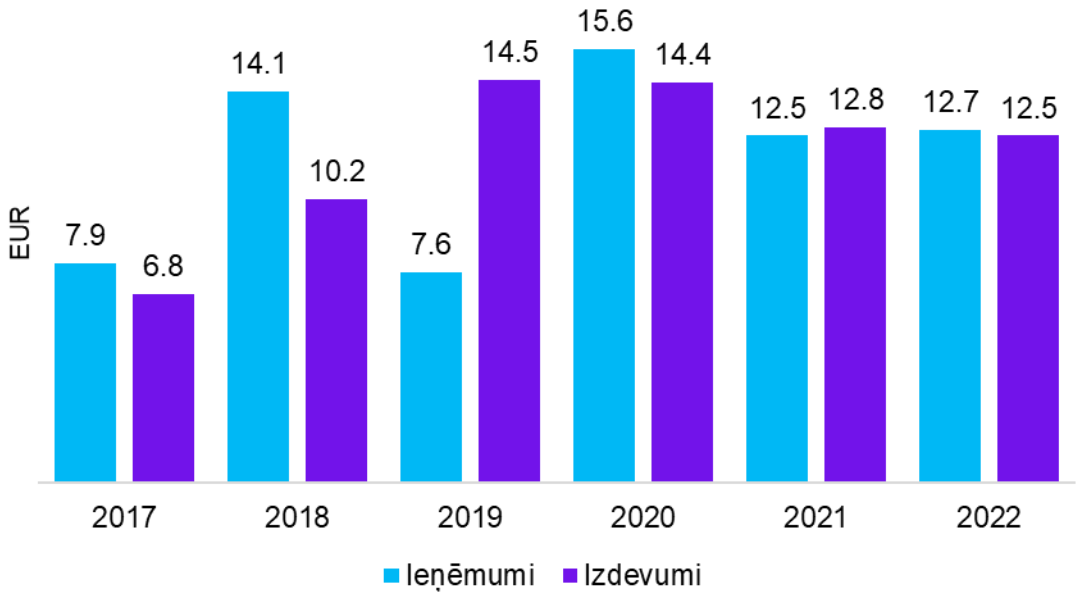
Over the past 5 years, one of the most significant successes of DU has been the governance centralization projects, ensuring the modernization of governance at the university. The implementation of the SSG 8.2.3. project has helped DU make various governance improvements, facilitating the implementation of different e-solutions in daily work and optimizing the everyday life of employees, such as, for example, document management system Namejs, the employee self-service system Horizon HoP, expanding the functions of the DU information system (DUIS) software, improving the e-study environment Moodle and DU website. Employee self-service systems Horizon and HoP facilitate the entry and approval of information. DU staff highly evaluates the implementation of new solutions, indicating the need to further develop their management systems. Previously, DU, “Latvian Institute of Aquatic Ecology”, and “Daugavpils Medical College” used various accounting programs. Now a unified system has been introduced with Horizon simplifying the management process. These solutions create an excellent basis for the implementation of further innovations, for example, the implementation of data governance principles to promote the availability of open data to the public in accordance with the Latvian Open Data Strategy. It is equally necessary to highlight the developed description of the quality management system, which is defined in accordance with the DU values and the principles of Total Quality Management (TQM). The description is also based on an excellence approach, using the internationally recognized European Foundation of Quality Management (EFQM) excellence model.

The assessment of the current situation conducted by KPMG[117] identifies several shortcomings in the financial situation related to the diversification of DU's revenue sources. Revenue and expenditure have grown significantly since 2017, however, a decline in revenue was observed in 2019, with revenue and expenditure stabilizing 2021 and 2022. In the future, challenges are expected with attracting funding for infrastructure

[119] The future or learning, eLearning Industry, 2023, retrieved: Educational Technology Trends For 2023 - eLearning Industry
[120] Par Izglītības attīstības pamatnostādnēm 2021.–2027. gadam (likumi.lv) (*Latvian Education Development Guidelines for 2021-2027*)

needs, taking into account the priorities of EU funds for 2021-2027. Currently, unbalanced revenue diversification is indicated by the low share of revenue from contract work, which has not exceeded 2% of DU's total revenue since 2016, thus indicating that the university has not established a stable revenue stream independent of state funding (Figure 14). The creation of certified laboratories for unique research resources owned by DU could promote both technology transfer and increase revenue from contract work, based on the interest of companies to invest in research, development and innovation.

Figure 14. DU revenue and expenditure 2017-2022, million EUR (Source: DU data)



In 2022, MoES reviewed and approved a new model for allocating base research funding, based on performance indicators, transitioning from the previous approach, where 90% was influenced by the FTE of scientific staff. The base research funding to be allocated to scientific institutions will consist of seven components, which will be evaluated in the previous three funding periods.

To promote the diversification of cooperation methods and the overall promotion of DU's image, it is necessary to highlight the good and positive achievements of DU in social media, as well as to develop a marketing activity plan to create an attractive image in the public media. During interviews with DU students and employees, as well as DU graduates, it was repeatedly highlighted that the events and achievements, which could significantly help develop DU's external image, are not sufficiently promoted.

Based on the analysis of the DU operating framework and the assessment of the current situation, this section defines such strategic tasks as the implementation of a data-based goal cascading system at all levels of management, the involvement of students in the development of the university (implementation of initiatives, organization of events), the implementation of research that addresses issues specific to Latgale and Sēlija regions,

the creation of cooperation conditions that promote long-term contract work, the promotion of diversification of revenue sources, ensuring greater financial stability and permanent investments in development, and the increase of funding attraction outside the EU fund program.

5.10 Quality Management Policy

Within the framework of the project SSG 8.2.3., a new DU internal quality management system has been developed, which is defined in the “Internal Quality Assurance Policy of Studies at DU”[121] (hereinafter – the Policy). The Policy has been developed in accordance with European standards and EFQM model. It defines seven basic principles of a quality policy: 1) Strategic study quality improvement; 2) Culture of excellence; 3) Stakeholder involvement, 4) Sustainable study value; 5) Study quality and change management; 6) Stakeholder assessment; 7) Evaluation of strategic and daily performance results. Based on the self-assessment of the responsible and involved structural units, 17 study quality management activities and indicators have been determined. The Policy defines the principles according to which the study fields and study programs are monitored and developed. The Study Field Council is involved in this process, determining the results to be achieved and evaluating what has been achieved no less than once every three years. The Council organizes group discussions at least once during the accreditation period with employers whose represented sectors correspond to the study programs included in the study field, inquiring regarding the compliance of graduates with labour market requirements. Discussions are also organized with graduates, clarifying the usefulness of the knowledge, skills and competencies acquired during studies in their employment, obtaining recommendations for improving the study process and clarifying plans for continuing studies. The conclusions obtained in the discussions of employers and graduates are included in the plan and evaluation.

At the time of strategy development, certification process is being developed, which is planned to be completed by 1 December 2023, to certify and officially recognize compliance with the Policy, including a strategic task for the certification of the quality management policy description and the implementation of a data-based goal cascading system at all management levels, and the implementation of employee feedback mechanisms (e.g. surveys).

5.11 Social responsibility, cultural, and sports activities

DU provides students with cultural and sports activities, as evidenced by both high achievements in sports and opportunities to participate in various cultural events. For example, during the 2022/2023 volleyball season, "Ezerzeme"/"Daugavpils University" became the Latvian volleyball champions for the first time in history, and at the Latvia

[121] DU studiju iekšējās kvalitātes nodrošināšanas politika (*Internal Quality Assurance Policy of Studies at DU*), DU, retrieved from: https://du.lv/par-mums/dokumenti/

Universiade Summer Sports Games, DU women's team took second place, while the men's team finished fourth.[122]

The mixed choir "DUalis" participated in the 2022 Latgale and Vidzeme Song Festivals' rehearsal concert in Cēsis and in the Baltic Student Song Festival “Gaudeamus” in Vilnius (Lithuania). DU also provides the opportunity to join the Student Dance Ensemble "LAIMA".[123][124]

During the strategy implementation period, it is important to build a university community through interest groups (e.g., dance groups, choir, sports activities, etc.) to promote social responsibility and the organization of cultural and sports events, which will attract positive public attention. Cultural and sports activities are a significant element in creating a university community that would promote DU and spread positive information about its achievements. DU's dance ensemble and choir can aim for high-level results, for example, setting a goal to participate in the 28th Latvian Song and Dance Festival in 2028.

Social responsibility can be fostered by participating in local community activities, providing free or low-cost services to society, organizing events that support environmental protection, charity, or other important social issues, as well as visiting educational institutions in Latgale and Sēlija regions, where scientists can meet with students, and professors can conduct lessons.

DU's contribution to cultural activities may include organizing art exhibitions and various literary readings within university premises, among other events, providing spaces and resources to promote student groups or artistic activities.

Considering the already high achievements in sports, it is necessary to renovate the sports complex and provide various trainings, competitions, and other sports events there to help popularize DU itself.

5.12 Collaboration with alumni and patrons

DU organizes various systematic science communication events and programs to foster youth interest in science, such as the Daugavpils Science Festival, Scientist Night, DU Annual Award in Science, Latgale Student Scientific Paper Competition, Daugavpils University Science School, Humanities Academy for Youth, and Literary Academy. To further strengthen the university's image and widely disseminate information about DU in public media, it is necessary to establish systematic cooperation with alumni, for example, by creating an alumni association. An alumni association is an excellent way to engage graduates in university life even after graduation by organizing systematic events and maintaining close relationships overall.

[122] LASS, 2022, retrieved from: https://docs.google.com/spreadsheets/d/1-NBptoQl_foX1woQQmV4a0LJ5MsF-UKGsnBwZFVJNQg/edit#gid=825657245
[123] DU studentu sasniegumi (*DU students' achievements*), DU mājaslapa
[124] DU jauktais koris (*DU mixed choir*), https://du.lv/jauktais-koris-dualis/

5.13 Internationalization

Justification of necessity [125] [126]

Student mobility and exchange of experience: Internationalization provides students with the opportunity to obtain an international education, participate in exchange programs or study abroad. This helps to broaden their horizons, develop intercultural competencies, language skills and relevant industry knowledge. Gaining international study experience contributes to students' personal and academic development.

Promoting scientific and academic cooperation: Internationalization promotes scientific cooperation between universities. Research projects, publications and conferences with international participation promote scientific knowledge and the exchange of ideas, contributing to the development of science and technology worldwide. In addition, academic cooperation can promote innovation and transfer of technological development from one country to another.

Building reputation and international awareness: Internationalization helps universities increase their reputation and awareness at the international level. Cooperation with prestigious institutions, involvement in international research projects and attracting students from different countries contribute to the visibility and competitiveness of universities in the education market.

Social and economic contribution: Internationalization can have a positive impact on the development of local communities and the economy. Students from abroad and international researchers create demand for the hospitality industry, service provision and educational infrastructure, thus creating new jobs and economic growth. In addition, cooperation with partner countries can promote science and technology transfer, cultural exchange and influence social development.

Solving global issues: Internationalization promotes international cooperation and innovative thinking, which is necessary to address global challenges such as climate change, poverty, healthcare problems, etc. International knowledge, perspectives and partnerships can promote synergies and pooling of resources to find solutions to these problems together.

Description of the current situation

International cooperation: DU actively develops cooperation with foreign institutions, thus being able to participate in various projects, attract foreign students, as well as to support the exchange of experience through employee mobility. In total, DU cooperates with 43 foreign higher education institutions – 44% in Eastern and Western Europe, 40% in Central, South and East Asia, 9% in North America and 7% in the Middle East. Highlight is the cooperation established within the framework of Horizon Europe projects with universities from the United Kingdom, Spain, Slovakia, Germany, etc.

[125] Approaches to internationalisation - final - web.pdf (oecd.org)
[126] Internationalization - IAU (iau-aiu.net)

International mobility: DU has opportunities to build cooperation with new partners that would promote the exchange of professional competencies, experience and good practices as per the needs expressed by the staff. In the period of 2018-2022, DU employees have been relatively active in using mobility opportunities, with approximately 150 trips taking place each year. Mostly employees go to Lithuania, Poland and Bulgaria, but since 2020, more trips have also been made to the USA, the Philippines, India and Cape Verde. These activities help to develop innovations in the labour market and the region, as well as to promote reforms in the areas of governance and digitalization. To support student and staff mobility, both DU students and staff have the opportunity to participate in Erasmus+ activities.

Attracting foreign students and their study process: the analysis of the current situation indicates that the proportion of foreign students at DU is relatively small (1.8%) and it is lower than in other Latvian higher education institutions, except for ViA, where it is 0.7%. The proportion of foreign academic staff is 3% in 2022.

International events: DU has organized several conferences in collaboration with various Latvian and international universities. In 2022, for example, DU organized the 64th International Scientific Conference of Daugavpils University, the International Scientific Conference "SPORTS: EDUCATION, science, technologies" in collaboration with Klaipeda University and Rivne State University of Humanities, the 17th International Scientific Conference "SOCIAL SCIENCES FOR REGIONAL DEVELOPMENT 2022", the 11th International Conference on Biodiversity Research, and in 2023 – the 65th International Scientific Conference of Daugavpils University[127].

Internationalization strategic goals and action plan: Based on the analysis of the DU framework and the assessment of the current situation, the following strategic goals are defined in this section:

- attracting foreign students to programs at all study levels,
- strengthening international cooperation with partners and creating new partnerships,
- strengthening involvement in scientific networks,
- expanding staff involvement in outgoing mobility,
- organizing international doctoral training programs in all doctoral study programs.

In 2028, the goal is to achieve a 5% proportion of foreign academic staff (3% in 2022) and a 5% proportion of foreign students (1.8% in 2022). For a more detailed action plan, see section 7.2.

[127] DU, retrieved from: https://old.du.lv/fakultates/izglitibas-un-vadibas-fakultate/strukturvienibas/starptautiskas-konferences/

6. Mission statement of Daugavpils University

The mission, vision and key development goals of DU Strategy 2022-2028 are based on such key principles as the development of science, education, governance, cooperation and infrastructure. The priority of education, science and governance is reflected by defining three key development goals corresponding to them, while cooperation, infrastructure and internationalization are cross-cutting topics included in the courses of action and measures resulting from the goals. Courses of action have been defined for each of the three key development goals, which are further described in detail regarding more specific measures in section “Implementation Plan” of DU 2028.

DU Mission					
The mission of Daugavpils University is to promote the development of a sustainable future society by conducting international-level scientific research and providing high-quality education in the fields of natural sciences, social sciences, humanities and arts, promoting a sustainable development of Latgale Region and Latvia through its activities.					
DU Vision					
Daugavpils University is a Baltic-wide centre of excellence in strategic specialization areas with the status of a university of science and provides an ecosystem for knowledge and technology transfer.					
DU values					
People	People	People	People	People	People
DU key development goals until 2028					
G1: Educational provision based in a modern and digital environment that is implemented throughout life and is in line with the demands of society and industry		G1: Educational provision based in a modern and digital environment that is implemented throughout life and is in line with the demands of society and industry		G1: Educational provision based in a modern and digital environment that is implemented throughout life and is in line with the demands of society and industry	
DU courses of action until 2028					
CoA1: Developing educational provision for the needs of society		CoA1: Promoting excellence in scientific results		CoA1: Promoting financial sustainability	
CoA2: Improving study programs for student-centred education		CoA2: Developing research governance		CoA2: Building a positive external image	
CoA3: Improving digital technology and digital skills		CoA3: Developing impact on the social and economic environment of Latgale and Sēlija region		CoA3: Attracting and retaining talent	
CoA4: Promoting internationalisation and local cooperation		CoA4: Improving international cooperation and partnerships		CoA4: Modernization of institutional governance	
				CoA5: Promoting infrastructure development and resilience	

The mission statement of DU includes the following development goals, which are integrated with the science strategy and the development plan doctoral studies:

- Internationalization (attracting foreign students to programs of all study levels, strengthening international cooperation with partners and creating new partnerships, strengthening involvement in scientific networks, expanding staff involvement in outgoing mobility, organizing international doctoral student training programs in all doctoral study programs, see more details on proposed activities in chapter 7.2.),

- Interdisciplinarity (developing the efficiency and quality of interfaculty cooperation in synergy with areas of specialization, see more details on proposed activities in chapter 7.2.),

- Technology transfer (establishing a technology transfer contact point, etc., see more details on proposed activities in chapter 7.2.),

- Digital university (improvement of the digital study environment, including a digital university, development of students' digital skills for a study process of higher quality and implementation of data openness principles, as well as strengthening the cybersecurity and performance of the IT network, and improvement of the range of services and products of the IT centre, etc., see more details on proposed activities in chapter 7.2.),

- Sustainable university (including regular improvement of sustainable solutions in university buildings (effective management of the university's outdoor space, etc.), implementation of the "Green Lab" concept in DU laboratories, see more details on proposed activities in chapter 7.2.).

7. Strategy implementation plan

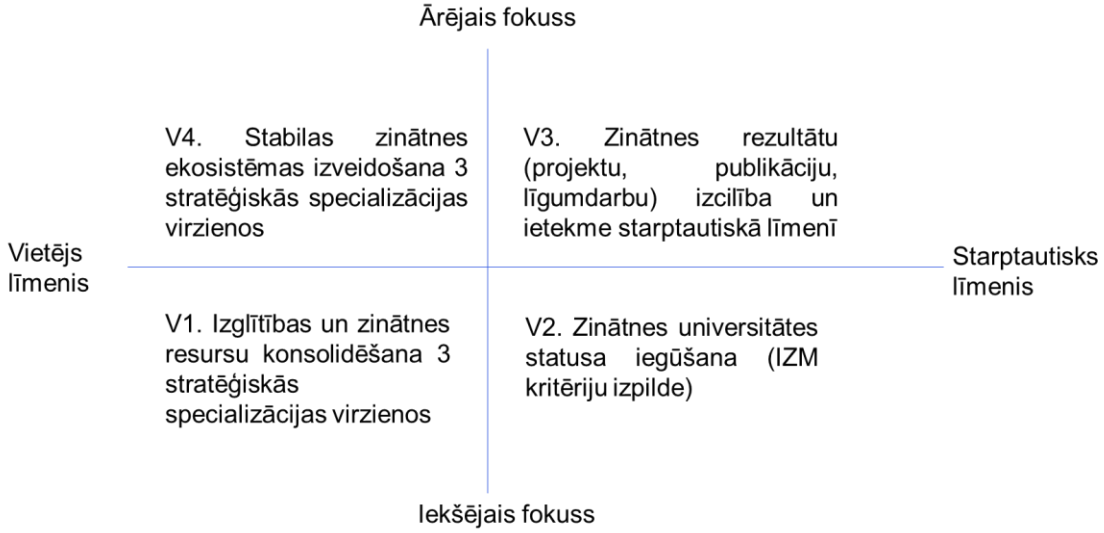
DU Strategy for 2022-2028 is designed as the most important document for planning of DU development. Other university planning and development documents should be created based on the goals and activities included in this strategy, supporting their implementation or conceptually supplementing them.

7.1 Development scenarios of Daugavpils University

As part of the development of the strategic implementation plan, proposals were made on the strategic directions of DU's activities. In coordination with DU, KPMG experts prepared four development scenarios for DU.[128] During the management seminar, after a discussion on the most appropriate scenario, development scenario V3 was set as the highest priority, with the aim of supplementing it with elements from V2 and V4. Although KPMG experts defined both priority activities and risks for each of the scenarios, it was mutually agreed that one strategy implementation plan would be developed in a full format, in which activities related to the V3 scenario would be prioritized.

Based on the results of the management seminar, KPMG experts prepared a proposal for the mission, vision, and strategic goals, which was discussed at the next management seminar on 22 May 2023. The seminar was attended by DU council representatives and the Vice-Rector for Development. The final formulation of the mission, vision, and strategic goals was completed at the end of May 2023 and included in DU 2028 final submission.

Figure 15. 7.1 Development scenarios of Daugavpils University (Source: KPMG)[129]



[128] Detailed information on development scenarios can be found in Appendix No 4
[129] KPMG offer

Development Scenario V1: Consolidation of education and science resources in three strategic specialization directions. The following vision statement was proposed: *Daugavpils University is internally consolidated, focusing resources on the most in-demand study programs in strategic specialization directions, with an effective internal governance system that rewards staff performance and promotes excellence.* This scenario would prioritize activities that emphasize the university's internal environment (e.g., improving governance, optimizing resource utilization, developing study and research programs), primarily adapting to the local market and strengthening cooperation with local partners, while defining the main stakeholders at the local level. This scenario would support activities related to improving internal processes, promoting student-centred education, and other internal governance measures, but it could pose risks regarding DU's internationalization efforts, technology transfer, and innovation development due to its focus on the local level rather than internationalization.

Development Scenario V2: Excellence and impact of scientific results (projects, publications, contract work) at the international level. The following vision statement was proposed: *Daugavpils University is an independent higher education institution that has achieved the status of a university of science; the university is characterized by significant publications, high qualification of academic staff, and participation in local and international projects.* This scenario would prioritize activities related to increasing internal capacity, placing significant emphasis on improving scientific results and international recognition. It would help successfully promote internationalization, prioritize research directions, and foster pedagogical excellence, but it could also pose risks, such as the inability to fully implement regional development activities, ensure sustainable environment, and an excessive international focus could reduce the return at the local level, thus decreasing DU's contribution to regional development.

Development Scenario V3: Excellence and impact of scientific results (projects, publications, contract work) at the international level. The following vision statement was proposed: *Daugavpils University is a Baltic-wide centre of excellence in Humanities, Natural Sciences, and Social Sciences, recognized as a high-quality study institution.* This scenario would prioritize activities related to improving research excellence, increasing international recognition, and focusing primarily on foreign stakeholders and partners. It would promote positive perceptions of DU in the international scientific and educational community by engaging in multiple scientific networks and consortia. However, an excessive focus on the external environment could pose risks, such as fostering fragmentation within internal structures, which could hinder the capacity needed to meet external demand.

Development Scenario V4: Establishment of a stable science ecosystem in three strategic specialization areas. The following vision statement was proposed: *Daugavpils University is a centre of Latgale's educational ecosystem, actively collaborating with educational institutions, entrepreneurs, local governments, and state agencies to facilitate the transfer of knowledge and technology within the strategic specialization areas.* This scenario would prioritize activities related to knowledge and technology transfer by working with Latvian educational institutions, entrepreneurs, local governments, and state agencies, ensuring the university's alignment with local market demand and promoting regional development. Such a combination would create a stable science ecosystem, providing a systematic approach to education and science, making

them interconnected. However, this development scenario carries risks of facing coordination difficulties within internal governance, financial constraints, and potential conflicts of interest among cooperation partners.

7.2 Implementation plan

In accordance with the mission and vision of DU, as well as the defined key development goals (hereinafter – KDG), an implementation plan was developed, consisting of courses of action (hereinafter – CoA) in several areas. Each CoA has its own set of activities (linked to the corresponding KDG), based on SWOT and TOWS analysis. Thus, the strategic plan is operationalized, ensuring the possibility of determining those responsible and delegating tasks. Finally, the primary source of funding is indicated for each of the activities, however, it should be emphasized that for the implementation of most activities, resources will be attracted from several funding sources (for example, state budget and EU funds).

7.2.1 KDG1: Educational provision based in a modern and digital environment that is implemented throughout life and is in line with the demands of society and industry

The achievement of this goal is facilitated by cooperation with partners, such as municipalities, employers and other universities, which help to develop and implement new study programs that are directly based on employer demand and areas where there is a significant labour shortage. Cooperation with employers provides practical experience and resources necessary to develop technologically advanced educational solutions and adapt the educational provision to the requirements of the labour market. Cooperation with international organizations provides a broader vision and access to foreign best practice examples and research innovations, contributing to improving the quality and standards of education. The successful achievement of the goal is negatively affected mainly by demographic forecasts of population decline, which indicate a high risk of a decrease in the number of students and may create challenges in ensuring a sustainable educational provision.

Table 7. KDG1 implementation plan

Course of action	Activity	Deadline	The person responsible	The person co-responsible	Source of funding
1.1. Development of educational provision for the needs of the labour market and society and the priorities of policy planning documents	1.1.1. Development of lifelong learning program offer	Constantly	Vice-rector	Methodologist of the Lifelong Learning Center, Deans of Faculties, Studies Department	ESF funding, 4.2.2. SSG (Personalization of the educational process and interdisciplinary cooperation for excellence in professional education), DU funding
	1.1.2. Improving the governance of the lifelong learning centre	31.12.2023	Vice-rector	Administration	ESF funding, 4.2.2. SSG (Personalization of the educational process and interdisciplinary cooperation for excellence in professional education), DU funding

Course of action	Activity	Deadline	The person responsible	The person co-responsible	Source of funding
	1.1.3. Development of work-based learning approaches in higher professional education programs	01.09.2024	Vice-rector	Methodologist of the Lifelong Learning Center, Deans of Faculties, Studies Department	ESF funding, 4.2.2. SSG (Personalization of the educational process and interdisciplinary cooperation for excellence in professional education), DU funding
	1.1.4. Creation of study courses/modules in the field of sustainability	Constantly	Vice-rector	Methodologist of the Lifelong Learning Center, Deans of Faculties, Studies Department	ERDF funding, 4.2.2. SSG Modernization of studies and implementation of digital solutions in higher education, DU funding
	1.1.5. Systematic analysis of the demand for professional competencies	Constantly	Vice-rector	Methodologist of the Lifelong Learning Center, Deans of Faculties, Studies Department	DU funding
1.2. Development of higher education programs for student-centred learning	1.2.1. Implementation of the new doctoral study model	01.09.2023	Vice-rector	Study Department, Science Department, Directors of Doctoral Programs, Doctoral School	ESF funding, 4.2.2. SSG (Support for the implementation of the Academic Career System reforms), DU funding
	1.2.2. Creation of interdisciplinary and international study programs	Constantly	Vice-rector	Deans of Faculties, Study Department	DU funding
	1.2.3. Student attraction activities	Constantly	Vice-rector	Faculty Deans, Study Program Directors, International and Public Relations Department, Students' Council	DU funding

Course of action	Activity	Deadline	The person responsible	The person co-responsible	Source of funding
	1.2.4. Implementation of a new academic career model	*To be clarified*	Vice-rector	Faculty Deans	ESF, 4.2.2. SSG (Support for the implementation of the Academic Career System reforms), DU funding
	1.2.5. Evaluation and focus on the most demanded higher education study programs within strategic specialization areas	Constantly	Vice-rector	Faculty Deans, Study Program Directors, Study Quality Assessment Center, Students' Council, Study Department	DU funding
	1.2.6. Strengthening transversal skills across all educational programs, such as collaboration skills, emotional intelligence, etc.	Constantly	Vice-rector	Faculty Deans, Study Program Directors	DU funding
	1.2.7. Implementation of support mechanisms to promote entrepreneurship among students	01.09.2024	Vice-rector	Faculty Deans	ERDF funding, 4.2.2. SSG (Personalization of the educational process and interdisciplinary cooperation for excellence in professional education), DU funding
	1.2.8. Development of inter-faculty collaboration effectiveness and quality in synergy with specialization areas	Constantly	Vice-rector	Faculty Deans, Study Program Directors, Study Quality Assessment Center, Study Department	DU funding

Course of action	Activity	Deadline	The person responsible	The person co-responsible	Source of funding
1.3. Improvement of digital technology and digital skills	1.3.1. Improvement of the digital study environment, including digital university	Constantly	Vice-rector	ICT	ERDF funding, 4.2.2. SSG (Modernization of studies and implementation of digital solutions in higher education) ESF funding 1.3.1. SSG (Digital transformation management and development of digital skills), DU funding
	1.3.2. Development of students' digital skills for a study process of higher quality	Constantly	Vice-rector	Faculty Deans, ICT	ERDF funding, 4.2.2. SSG (Modernization of studies and implementation of digital solutions in higher education) ESF funding 1.3.1. SSG (Digital transformation management and development of digital skills), DU funding
1.4. Promotion of internationalization and local cooperation	1.4.1. Expansion of collaboration within academic centres and with other Latvian higher education institutions	Constantly	Vice-rector	Vice-rector, Faculty Deans, International and Public Relations Department	ESF funding, 4.2.2. SAM (Personalization of the educational process and interdisciplinary cooperation for excellence in professional education), DU funding
	1.4.2. Increasing employer involvement in creating new study programs and improving the existing ones	Constantly	Vice-rector	Faculty Deans, Study Field Directors, DU Council	ESF funding, 4.2.2. SAM (Personalization of the educational process and interdisciplinary cooperation for excellence in professional education), DU funding
	1.4.3. Attracting foreign students to all study level programs	Constantly	Vice-rector	Faculty Deans, International and Public Relations Department	DU funding

Course of action	Activity	Deadline	The person responsible	The person co-responsible	Source of funding
	1.4.4. Development of cooperation with general and vocational education institutions	Constantly	Rector	Vice-rector, Faculty Deans, International and Public Relations Department	ESF funding, 4.2.2. SAM (Personalization of the educational process and interdisciplinary cooperation for excellence in professional education), DU funding

7.2.2 KDG2: Research based on long-term cooperations resulting in high-quality results internationally and a positive impact on Latgale Region and Sēlija

The achievement of this goal is facilitated by long-term collaboration with international research centres, other universities, companies, and local governments, which collectively produce high-quality results and positively impact Latgale and Sēlija regions. Mostly, collaboration with businesses and local governments provides opportunities to develop and implement new technologies, innovations, and solutions that meet the needs of the region. One of the risks negatively affecting the achievement of this goal is the demographic development, which predicts a decline in the number of students and the potential decrease in the number of new researchers. Building long-term partnerships with various stakeholders may require significant time, resources, and administrative effort. Additionally, the rapid and unpredictable development of technology can create a need to adapt to changing conditions and follow up with the latest innovations and technological achievements, which might be difficult to achieve without the necessary funding.

Table 8. KDG2 implementation plan.

Course of action	Activity	Deadline	The person responsible	The person co-responsible	Source of funding
2.1. Promoting excellence in scientific results	2.1.1. Improving internationally and locally high-quality scientific results (publications, citations, etc.)	2025.g / Constantly	Vice-rector	Study Field Directors, Faculty Deans	State budget funding, NDP2027 5. Course of Action “Science for Society's Development, Economic Growth, and Security”, DU funding
	2.1.2. Increasing participation in EU research core program projects	Constantly	Vice-rector	Study Field Directors, Faculty Deans	ERDF funding, 1.1.1. SSG, DU funding
	2.1.3. Improving support mechanisms for promoting research	2025.g // Constantly	Vice-rector	Study Field Directors, Faculty Deans	State budget funding, NDP2027 5. Course of Action “Science for Society's Development, Economic Growth, and Security”, DU funding
	2.1.4. Attracting new researchers and doctoral students	Constantly	Vice-rector	Faculty Deans, Directors of Doctoral Programs	ERDF funding, 1.1.1. SSG, DU funding
2.2. Improving research governance	2.2.1. Promoting accessibility of research infrastructure use through contractual work; developing a portfolio of research services	Constantly	Vice-rector	Faculty Deans	DU funding

Course of action	Activity	Deadline	The person responsible	The person co-responsible	Source of funding
	2.2.2. Reviewing and distributing researcher workload among research, academic work, industry collaboration, and administrative duties	*To be clarified*	Rector	Vice-rector	DU funding
	2.2.3. Establishing a technology transfer contact point	01.09.2024	Rector	Vice-rector, Faculty Deans, Administration	ERDF funding, LIAA, NDP2027 7. Course of Action “Productivity, Innovation, and Export”, DU funding
	2.2.4. Improving the professional capacity of research structural unit management	Constantly	Vice-rector	Deans of faculties	DU funding
	2.2.5. Improving postdoctoral research programs	Constantly	Vice-rector	Faculty Deans, Science Department	ERDF funding 1.1.1. SSG, DU funding
	2.2.6. Regular assessment of research needs	Constantly	Rector	Science Department, Procurement Department, IKT	DU funding
2.3. Developing impact on the social and economic environment of Latgale and Sēlija regions	2.3.1. Implementing research addressing specific issues relevant to Latgale Region	Constantly	Rector	Vice-rector, Faculty Deans, DU Council	State budget funding, NDP2027 5. Course of Action “Science for Society's Development, Economic Growth, and Security”, "Market-Oriented Research Program", DU funding
	2.3.2. Increasing the number of private sector partners in	Constantly	Rector	Vice-rector, Faculty Deans, Study Program Directors, DU Council	State budget funding, NDP2027 5. Course of Action “Science for Society's Development, Economic Growth, and Security”, "Market-

Course of action	Activity	Deadline	The person responsible	The person co-responsible	Source of funding
	DU's strategic specialization areas				Oriented Research Program", DU funding
	2.3.3. Promoting science in society, including among school students and youth	Constantly	Rector	Vice-rector, Faculty Deans, Study Program Directors, Science Department, International and Public Relations Department	ERDF funding, 1.1.1. SSG "Implementation, Management, and Strategic Communication of Science Policy", DU funding
2.4. Improving international cooperation and partnerships	2.4.1. Strengthening international cooperation with partners and creating new partnerships	Constantly	Rector	Vice-rector, Faculty Deans, International Relations Department	DU funding
	2.4.2. Preparing joint EU-level projects	2028.g	Vice-rector	Faculty Deans, Science Department	DU funding
	2.4.3. Strengthening participation in scientific networks	Constantly	Vice-rector	Faculty Deans, International Relations Department, Science Department	DU funding
	2.4.4. Strengthening the capacity of the UNESCO Chair	Constantly	Vice-rector	Science Department	DU funding

7.2.3 KDG3: An independent cooperation partner with a good reputation both internally and externally

The achievement of this goal depends on DU's ability to establish and maintain stable, long-term relationships with other excellent universities, academic centres, research institutes, as well as with local governments and companies. However, for such collaboration to develop, it is necessary to maintain a very good reputation in society and to be capable of establishing excellent governance that supports the sustainability of these partnerships. The attainment of this goal can be negatively impacted by competition with other universities at both national and international levels. A lack of financial resources and limited opportunities to attract funds from private investors or government support may restrict DU's ability to develop infrastructure and ensure modern governance and technology. Rapid development of technology and the digital environment will require continuous adaptation and development of digital competencies, which can pose challenges if strong governance is not in place.

Table 9. KDG3 implementation plan

Course of action	Activity	Deadline	The person responsible	The person co-responsible	Source of funding
3.1. Promoting financial sustainability	3.1.1. Establishing cooperation conditions that promote long-term contract work	01.09.2024	Rector	Vice-rector, Science Department, Finance and Accounting Department	DU funding
	3.1.2. Annual maintenance of modernized equipment and infrastructure to ensure sustainability	Constantly	Rector	Vice-rector, Procurement Department, ICT	ERDF 4.2.2. SSG Modernization of Studies and Implementation of Digital Solutions in Higher Education
	3.1.3. Promoting diversification of income sources to ensure greater financial stability and continuous development investments	Constantly	Rector	Study Department, Science Department, Administrative Department, Finance and Accounting Department	DU funding

Course of action	Activity	Deadline	The person responsible	The person co-responsible	Source of funding
	3.1.4. Expanding attraction of funding outside the EU funds program	Constantly	Rector	Science Department, Faculty Deans	DU funding
3.2. Improving external image	3.2.1. Improving marketing activities and strategic communication of DU	Constantly	Deputy Rector for Development	International and Public Relations Department, Faculty Deans	DU funding
	3.2.2. Creating an alumni association	01.06.2024	Deputy Rector for Development	International and Public Relations Department, Faculty Deans	DU funding
	3.2.3. Promoting internationalization	Constantly	Deputy Rector for Development	International and Public Relations Department, Faculty Deans	ERDF, 1.1.1. SSG (Activities on mobility, exchange, and cooperation to improve international scientific competitiveness)
3.3. Talent attraction and retention	3.3.1. Promoting pedagogical excellence and competencies (especially digital, communication, foreign language skills, etc.)	Constantly	Rector	Administration, Faculty Deans, Vice-rector	ESF funding 1.3.1. SSG (Digital Transformation Management and Development of Digital Skills) ESF 4.2.2. SSG (Development of Education Quality Monitoring System)

Course of action	Activity	Deadline	The person responsible	The person co-responsible	Source of funding
	3.3.2. Increasing staff involvement in outgoing mobility	Constantly	Rector	Science Department, International and Public Relations Department, Faculty Deans	ERDF, 1.1.1. SSG (Activities on mobility, exchange, and cooperation to improve international scientific competitiveness)
	3.3.3. Organizing international doctoral training programs across all doctoral studies	31.12.2026	Rector	Science Department, Doctoral School (planned to establish from 01.09.23)	DU funding
	3.3.4. Increasing long-term recruitment of highly qualified staff	Constantly	Rector	Administration, Faculty Deans, Vice-rector	ERDF, 1.1.1. SSG (Activities on mobility, exchange, and cooperation to improve international scientific competitiveness)
3.4. Modernization of institutional governance	3.4.1. Improving internal information circulation to successfully participate in major project applications	Constantly	Rector	Administration, Study Department, Science Department	ERDF, 1.1.1. SSG (Successful participation of Latvia in the Horizon Europe program, including support tools and linkages with RIS3 specialization area development)

Course of action	Activity	Deadline	The person responsible	The person co-responsible	Source of funding
	3.4.2. Building capacity for project proposal development and project management	Constantly	Rector	Science Department, Administration	ERDF, 1.1.1. SSG (Successful participation of Latvia in the Horizon Europe program, including support tools and linkages with RIS3 specialization area development) State budget funding, NDP2027 5. Course of Action "Science for Society's Development, Economic Growth, and Security"
	3.4.3. Implementing data-based goal cascading systems at all management levels	01.01.2024	Rector	All structural units, Administration, Study Department, Science Department	ESF 4.2.2. SSG Development of Education Quality Monitoring System
	3.4.4. Establishing mechanisms for feedback from staff, e.g., surveys	01.10.2023	Rector	Administration, International and Public Relations Department	DU funding
	3.4.5. Certification of the quality management policy document	01.12.2023	Rector	Administration	ESF 4.2.2. SSG Development of Education Quality Monitoring System

Course of action	Activity	Deadline	The person responsible	The person co-responsible	Source of funding
	3.4.6. Involving students in university development	Constantly	Rector	Vice-rector, Students' Council, Faculty Deans	DU funding
	3.4.7. Implementing principles of data openness	Constantly	Rector	Vice-rector, ICT Department, Administration, Study Department	ERDF 1.1.1. SSG (Digitalization of scientific activities and participation in the European Open Science Cloud)
	3.4.7. Participating in discussions with the government and Ministry of Education and Science regarding the implementation of Higher Education reforms	Constantly	Rector	DU Council	DU funding
	3.4.8. Improving services and products of the IT Centre	Constantly	Rector	ICT, Procurement Department	ERDF 1.1.1. SSG (Modernization of Studies and Implementation of Digital Solutions in Higher Education)
	3.4.9. Introducing monitoring of research infrastructure utilization load	Constantly	Rector	ICT, Procurement Department	DU funding
3.5. Promoting infrastructure development and resilience	3.5.1. Implementing the Green Lab concept in DU laboratories	Constantly	Rector	Faculty Deans, Procurement Department	DU funding
	3.5.2. Strengthening cybersecurity and	Constantly	Rector	ICT, Procurement Department	DU funding

Course of action	Activity	Deadline	The person responsible	The person co-responsible	Source of funding
	performance of DU IT network				
	3.5.3. Regular improvement of sustainable solutions in university buildings (e.g., efficient management of campus outdoor spaces, etc.)	Constantly	Rector	Study Department, Procurement Department	DU funding
	3.5.4. Implementing a property management plan	Constantly	Rector	Procurement Department	DU funding

7.3 Performance Indicators

The monitoring and evaluation system is based on result-oriented indicators. The indicators of the monitoring system can be classified into three groups based on content:

- **Indicators related to the vision and medium-term goals** – impact indicators that include the most significant influence indicators of DU development;
- **Indicators related to key development goals** – outcome indicators that encompass the results of activities in education, science, and governance development;
- **Indicators related to completed activities** – output indicators used only for internal purposes and included in Appendix No 4, describing each activity of the implementation plan.

7.3.1 Key Impact Indicators

The key impact indicators of DU development in the fields of education and science, providing an overview of the university's activities and its significance for national development.

Table 10. Key impact indicators

No	Result Indicator	Reference Value (2022 or latest)	Value 2025	Value 2028	Unit	Period	Data Source
1.	DU's contribution to the economy	EUR 229 million (2020)[130]	*To be clarified*	*To be clarified*	EUR	Year	DU data
2.	QS EECA ranking position	241-250	211-220	200	1.0	Year	QS EECA ranking
3.	Proportion of scientific publications in Q1, Q2 journals	40%	45%	50%	%	Year	Citescore
4.	International Evaluation of Scientific Institutions' Activities in strategic specialization areas	Natural sciences: Biology - 3, Mathematics, Physics, Chemistry - 1 Humanities and Arts: Regional Studies, Literature, and Arts - 4 Social sciences: Education science, Psychology, Economics, and Legal sciences - 3 (2019)	At least 3 in all strategic specialization areas (Natural Sciences, Humanities and Arts, Social Sciences, including Education)	At least 3 in all strategic specialization areas (Natural Sciences, Humanities and Arts, Social Sciences, including Education)	1.0	Once every 6 years	IESIA
5.	Number of scientific publications indexed in WoS/SCOPUS databases over 5 years	960 (2018-2022)	>1000 (2020-2024)	>1000 (2024-2028)	1.1	5-year period	DU data

[130] *Aprēķini veikti pēc Walter Sudmant metodoloģijas (Calculations were made according to the Walter Sudmant methodology),* Zeps, Artūrs. Augstskolas ieguldījums tautsaimniecībā un ieguldījuma pilnveides iespējas (*The contribution of higher education institutions to the national economy and opportunities for improving their contribution*). Presented on 4 December 2021, recording is retrieved: https://lpr.gov.lv/lv/2021/latgales-pievienota-vertiba-cilveki-un-latgaliskums-turismainovacija-augstakaja-izglitiba

7.3.2 KDG1: Educational provision based in a modern and digital environment that is implemented throughout life and is in line with the demands of society and industry

Table 11. KDG1 result indicators

Nr.	Result Indicators	Reference Value (2022 or latest)	Value 2025	Value 2028	Unit	Period	Data Source
1	Number of students	2385	2480	2860	1.0	Year	DU data / CSP sheets
2	Graduate employment in high-qualification professions	77,4% (2020, 2019 graduates)	79%	81%	%	Year	Graduate Monitoring MoES
3	Average income of graduates	11 628 (2020, 2019 graduates)	14 000	17 000	EUR	Year	Graduate Monitoring MoES
4	Students' evaluation of study programs	3.7 (2023)	4.0	4.3	1.0	Year	Student survey
5	Number of students per academic staff member (FTE)	42.5	Decreases	Decreases	1.0	Year	DU data
6	Proportion of foreign academic staff	3%	4%	5%	%	Year	DU data
7	Number of short-term foreign students	*To be clarified* [131]	*To be clarified*	*To be clarified*	1,0	Year	DU data
8	Share of foreign students	1,8%	3%	5%	%	Year	DU data

[131] The data will be compiled by the DU Studies Department.

Nr.	Result Indicators	Reference Value (2022 or latest)	Value 2025	Value 2028	Unit	Period	Data Source
9	Investments in new/modern equipment per student over the past 5 years	2 604	*2725*	*3140*	EUR	Average value per 5 years	DU data
10	Proportion of academic staff aged 30-49	50%	Unchanged or increases	Unchanged or increases	%	Year	DU data
11	Number of lifelong learning programs	*To be clarified* [132]	Increases	Increases	1,0	Year	DU data

7.3.3 KDG2: Research based on long-term cooperations resulting in high-quality results internationally and a positive impact on Latgale Region

Table 12. KDG2 result indicators

No	Result Indicator	Reference Value (2022 or latest)	Value 2025	Value 2028	Unit	Period	Data Source
1.	Proportion of doctoral degree holders among academic staff (elected lecturers and researchers)	69%	Unchanged or increases	Unchanged or increases	%	Year	DU data
2.	Indexed scientific publications in "WoS" and "Scopus" databases	216	220	230	1.0	Year	DU data
3.	Number of projects coordinated within Horizon Europe (including ERA NET program)	0	1	1	1.0	In the reporting year	DU data

[132] The data will be compiled by the DU Studies Department and/or Lifelong Learning Centre

No	Result Indicator	Reference Value (2022 or latest)	Value 2025	Value 2028	Unit	Period	Data Source
4.	Number of defended doctoral theses	8	15	20	1.0	Year	DU data
5.	Participation in consortia/networks in each specialization area	Natural Sciences: 3 Humanities and Arts: Social Sciences: 8	Unchanged or increases	Unchanged or increases	1.0	Year	DU data
6.	Number of doctoral graduates relative to scientific staff (FTE)	0.04	Unchanged or increases	Unchanged or increases	1.0	Year	DU data
7.	Establishment of a technology transfer contact point	0	1	1	1.0	Year	DU data
8.	Proportion of co-authored publications with international partners relative to the total number of scientific publications indexed in "WoS" and "Scopus" databases	*To be clarified* [133]	*To be clarified*	*To be clarified*	%	Year	DU data

7.3.4 KDG3: An independent cooperation partner with a good reputation both internally and externally

Table 13. KDG3 result indicators

No	Result Indicator	Reference Value (2022 or latest)	Value 2025	Value 2028	Unit	Period	Data Source
1.	Total revenue from scientific activity	2,019,164 (2021)	2.5 million	3.0 million	EUR	Year	DU data

[133] The data will be compiled by the DU Science Department

No	Result Indicator	Reference Value (2022 or latest)	Value 2025	Value 2028	Unit	Period	Data Source
2.	Share of income from contractual work with legal entities of the Republic of Latvia	1.1% (2021)	2.5%	4%	%	Year	DU data
3.	Income per student for studies	4,256 (2021)	4 500	5 000	EUR	Year	DU data
4.	Share of income from lifelong learning programs in total revenues	0.29%	0.55%	1%	%	Year	DU data
5.	Employee satisfaction	N/A	*To be clarified* [134]	*To be clarified*	*To be clarified*	Twice per year	Employee survey
6.	Establishment of an alumni association	0	1	1	1.0	Year	DU data
7.	Number of incoming mobility trips	35	Increases	Increases	1.0	Year	DU data
8.	Number of outgoing mobility trips per year	150	Increases	Increases	1.0	Year	DU data

[134] The data will be compiled by the Administration and International and Public Relations Department.

7.4 Analysis of internal regulatory documents of Daugavpils University

During the development of the strategy, the following internal documents of DU were analysed:

- Constitution of Daugavpils University[1];
- Development Strategy of Daugavpils University for 2015-2020[135];
- Internal Quality Assurance Policy for Studies at Daugavpils University[136];
- Governance Strategy for Study Quality Policy and Monitoring at Daugavpils University;
- Procedure for ensuring the effectiveness of the internal quality system of DU studies;
- Development plan of doctoral study programs for 2020-2026 for the implementation of the new doctoral study model at Daugavpils University.

The DU 2028 implementation plan provides the following proposals for updating regulatory documents:

- Certification of the description of the quality management policy;
- Updating internal regulations, describing the governance of lifelong learning issues;
- Development of a digital transformation roadmap and inclusion in internal regulations;
- Implementation of a data-driven goal cascading system;
- Introducing recording of research infrastructure utilization load;
- Creation of cooperation conditions that encourage long-term contractual work.

[135] Daugavpils Universitātes attīstības stratēģija 2015.-2020.gadam (*Daugavpils University Development Strategy 2015-2020*), retrieved: https://new.du.lv/wp-content/uploads/2021/12/DU_attistibas_strategija_25.01.2021.-converted.pdf
[136] Daugavpils Universitātes studiju iekšējās kvalitātes nodrošināšanas politika (Daugavpils University Internal Quality Assurance Policy), retrieved: https://du.lv/wp-content/uploads/2022/10/DAUGAVPILS-UNIVERSITATES-STUDIJU-IEKSEJAS-KVALITATES-NODROSINASANAS-POLITIKA-1.docx

7.5 Monitoring measures for the implementation of the Strategy

The monitoring of the Strategy consists of the assessment of jointly determined monitoring indicators, which are represented in the annual report, structured according to the key development goals, courses of action and activities. Within each course of action, a brief assessment of changes in the relevant area or sector policy in the country and the EU will also be provided. Within the framework of each goal, conclusions and proposals will be prepared after evaluating the progress of the result indicators. The monitoring report will be the basis for the annual update of the Implementation Plan, and it may be the basis for proposing amendments to the Strategy. The DU management (Rector, Vice-rector) will prepare the report by July 1 of each year. At the same time, considering the changes in the external environment (e.g. changes in regulations, labour market) or in the internal operations of DU, DU 2028 may be updated more often, preparing an action plan for each subsequent year. The responsible persons for implementing the strategy and achieving results are the DU management (Rector, Vice-rector), but the monitoring report and planned changes are approved by the DU Council.

8. Appendices

Appendix No 1 – Components of base research funding (Source: MoESM[137])

Component	% of base research funding	Explanation
Salary	40%	Labour costs of scientific staff, scientific technical staff and scientific service staff
Comp	15%	Funding of obtained research and development projects that the scientific institution has obtained in competitions
Contr	10%	Implemented research and development contract work
Publ	15%	Number of scientific publications
DrMg	5%	Doctoral theses and defended master's theses developed by scientific staff
Izc	10%	Results of international evaluation
Infr	5%	Funding allocated for the maintenance of scientific infrastructure

[137] Jauns zinātnes bāzes finansējuma modelis (*New model for base research funding*), IZM (*MoES*), 2022, retrieved from: https://www.izm.gov.lv/lv/jaunums/atbalstits-jauns-zinatnes-bazes-finansejuma-modelis

Appendix No 2 – Interview participants

No	Interview participants	Number of participants	Date, time
1.	Vice-Rector for Studies, Head of the Studies Department, Dean of the Faculty of Education and Management, Vice-Dean of the Faculty of Humanities, Head of the Department of Law	5	27.03. at 9:00
2.	Vice-Rector for Science, IHSS Leading Researcher, ILST Director, Head of the Science Department, Dean of the Faculty of Natural Sciences and Mathematics	5	27.03. at 10:30
3.	Vice-Rector for Development, Head of Administration, Head of the Finance and Accounting Department	3	27.03. at 13:00
4.	Director of the Procurement Department, Deputy Director, Deputy Director of ICT	3	27.03. at 14:00
5.	Vice-Rector for Development	1	27.03. at 15:30
6.	Rector	1	28.03. at 9:00
7.	Representatives from Students' Council	5	28.03. at 11:00
8.	IHSS Researchers and Leading Researchers	7	28.03. at 13:00
9.	ILST Director, Heads of the Departments of Biotechnology, Biosystematics and Ecology of DZTI, Leading Researchers	7	28.03. at 14:30
10.	DU Council Interim Chairman, Council Members	4	28.03. at 16:00
11.	Chief Specialist for Cooperation at DU	1	06.04. at 10:00
12.	Ministry of Education and Science, Representatives of the Department of Higher Education, Science and Innovation	4	13.04. at 16:30
12.	Head of the Development Department of Daugavpils City Municipality, Head of the Daugavpils Education Board	2	26.04. at 15:30
14.	DU graduate	1	27.04. at 11:00
15.	DU graduate	1	27.04. at 14:00
16.	LPR Head of Administration	1	08.05. at. 10:00

Appendix No 3 – Description based on SWOT analysis data

SWOT analysis was based on various sources of information – interviews with DU students, graduates, academic and scientific staff, senior management, as well as other employees, external experts (from the Ministry of Education and Science of the Republic of Latvia, Daugavpils City Municipality, LPR, etc.); external documents, such as the International Evaluation of Scientific Institutions' Activity; internal documents, such as DU 2020; results of student surveys, etc.

The conclusions drawn are described in more detail in the text below.

Strengths

No	Conclusions
S1	**A significant centre of higher education in Latvia outside Riga** Context: In a regional perspective, looking at the proportion of students by fields, DU plays a significant role (over 10% of all Latvian students) in several specific fields that correspond to DU's strategic specialization areas: Natural Sciences (Environmental Protection (41%), Life Science (13%)), Humanities (Humanities (13%)), Social Sciences (Education (12%)).[138]
S2	**Provides education opportunities in areas in demand in the Latvian labour market** Context: According to data from the Ministry of Economics on labour demand and supply by educational program group, the most significant labour shortage level in 2023 was in three groups – 1) engineering, manufacturing and construction, 2) natural sciences, mathematics and information technology, 3) healthcare and social welfare.[139] In 2022, 23% of all Latvian graduates at the bachelor's degree (including professional) level in the thematic field of health care and social welfare (specifically, Physiotherapy and Nursing study programs) obtained a DU degree or qualification. DU also plays a significant role in preparing graduates of natural sciences (specifically, Biology and Mathematics study programs) – 13% of all Latvian doctoral degree holders graduated from DU in 2022. DU also has a significant proportion of doctoral degree holders in the Humanities (19% of all Latvian graduates), in the programs History and Archaeology and Literature Studies, and the proportion of Master's degree holders (including professional) and first-level professional higher education (college) in education (19% and 17% of all Latvian graduates, respectively), in programs Education Science,

[138] MoES data on the distribution of the number of students by regions and thematic fields of education, retrieved from: https://titania.saeima.lv/livs/saeimasnotikumi.nsf/0/383B0E83E4226473C2258966004EBC9E?OpenDocument

[139] Ekonomikas ministrijas darba tirgus prognozes (*Labour market forecast of Ministry of Economy*), https://prognozes.em.gov.lv/lv

No	Conclusions
	Education, Teacher, Career Counsellor, Youth Affairs Specialist, Preschool Teacher.[140] [99]
S3	**Students and graduates highly value the quality of study programs and the qualifications of lecturers** Context: In 2022, the proportion of doctoral degree holders in the academic staff is 69%, which indicates the high qualification of lecturers[141]. The proportion of academic staff aged 30-49 is 50% in 2022, which indicates a balanced age structure[142].Taking into account these two indicators, it is possible to state that the academic staff of DU is qualified and able to ensure a high-quality learning process. Based on the interviews with graduates, it can be concluded that DU provides students with high-quality and studies useful in their future.[143] Based on the survey conducted by the DU Students' Council: 17.8% of students admitted that they had acquired "as much as possible", 59.9% had acquired a lot of information and strengthened their skills. 13.6% of students responded that the study program is excellent, and the majority (57.8%) rated the study program at a good level.[144] [145]Based on the survey data, it can be concluded that DU provides student-centred education and study environment. In general, students evaluate DU lecturers as responsive, always ready to support and devote additional time to consultations. Students also highlight special support from the teaching staff, which gives students confidence in the successful completion of their studies.**Error! Bookmark not defined.** A significant part of students assessed the attitude of the lecturers towards students as professional and accommodating with "always" (47%) and "often" (36.6%). Similarly, on the question if the teaching staff has good pedagogical skills, 39.6% voted "always" and 41.1% voted "often". Regarding whether the lecturers were well-versed in the topic they were teaching, 62.9% answered "always" and 26.7% answered "often".[145] Students are also prepared for the study process before enrolling in study programs, where potential students have the opportunity to familiarise themselves with the study process by participating in the Daugavpils University Science School, Humanities Academy for Youth before enrolling. Students assess the enrolment process itself as clear and understandable, and the necessary support is also provided.[146]

[140] Data compiled by DU (Degrees or qualifications obtained by study programs in CSB tables)
[141] AKP010 Proportion of doctors in academic staff, DU data compiled
[142] AKP012 Proportion of academic staff aged 30-49
[143] Interviews with DU graduates
[144] AKI007 Student assessment of the quality of study program implementation
[145] DU student survey 2022/2023
[146] Interviews with DU representatives

No	Conclusions
S4	**DU has an accessible study environment, providing students with budget places** Context: The proportion of students in state budget study places reached 87% in 2022, and in general, budget places are available in DU's strategic specialization areas (Social Sciences, Humanities and Arts and Natural Sciences), providing ample opportunities for students to study at DU[147]. It can be concluded that DU has an accessible study environment, which also promotes regional development.
S5	**Relatively high graduate employment** Context: In 2020, 81.9% of DU's graduates of 2019 were employed, which is slightly lower than the national average (in 2020, the average employment rate across all universities in the country was 82.4%). Compared to other universities, DU has a higher employment rate than RTU (80.9%) and RSU (76.5%), but slightly lower than LU (89%). When comparing regional higher education institutions, DU ranks third behind LBTU (89%) and LiepU (83.9%). Employment in other regional universities is slightly lower than DU (in 2019, 78% for ViA, 77% for RTA and 76% for VeA, respectively).[148]
S6	**A modular system has been introduced, which attracts additional students to short-term programs** Context: DU's study environment provides modular training, including jointly with other universities, where students have the opportunity to study only part of a DU program. This approach is simpler from a legal perspective, as the creation of a joint program requires more resources.[147]
S7	**DU has increased its involvement in Horizon Europe projects since 2015** Context: Since 2015, DU has been involved in five Horizon 2020 and Horizon Europe projects; two of them have already been completed. Until 2018, DU had not been involved in such projects, which indicates significant improvements in cooperation in the international scientific space. Currently active projects involve a group of researchers from the Institute of Humanities and Social Sciences (Development of the research infrastructure required for the implementation of the GUIDE[149] birth cohort study and EU Digital Centre of Excellence for Socially Engaged Research in Life Sciences[150]) and from the Institute of Life

[147] Data compiled by DU (Number of budget places in CSB tables)
[148] (AAI022 Graduate employment rate), IZM Absolventu monitoringa dati (MoES Graduate monitoring data), https://www.viis.gov.lv/monitoringa-riki
[149] GUIDEPREP | European Commission
[150] BETTER life | European Commission

No	Conclusions
	Sciences and Technology (OPtimal strategies to retAIN and re-use water and nutrients in small agricultural catchments across different soil-climatic regions in Europe[151]). The total DU contribution funding across all Horizon Europe projects since 2018 amounts to 0.7 million EUR.[150] [151] [152] [153]
S8	**High evaluation of interdisciplinary publications and highest research publication rating among Latvian universities in the U-Multirank university ranking** Context: Based on a scale where A – very good and E – poor, in the U-Multirank 2022 university ranking, DU received the highest possible rating (A) in the interdisciplinary publication rating, as did RTU. In turn, it was in the evaluation of research publications where DU received the highest rating among Latvian universities. It was the only one to receive a rating B.[154]
S9	**The overall results of DU in the International Evaluation of Scientific Institution Activity are good** Context: DU overall had a rating of 3 (good) in IESIA 2019, including high rating for the Regional Studies, Literature and Art Research Program, which obtained an overall rating of 4 (very good), assessing the development potential of this program with a score of 5. Two more DU research programs, Biology and Education Science, Economics and Law, received a rating of 3 (good).[95]
S10	**The ratio of defended doctoral theses to the FTE of scientific staff is relatively high.** Context: Overall, the dynamics of doctoral theses' defence over the past 5 years has been relatively stable. To compare the number of doctoral theses with the national level and other higher education institutions, the calculation of the ratio of the number of doctoral theses to the FTE of scientists is used. In Latvia, on average 0.06 doctoral degrees were obtained per FTE of scientific staff in 2019, but in DU – 0.11. Compared to universities of science, DU's result is lower only than RSU's (0.14), indicating a higher number of doctoral degrees per FTE of scientific staff than at LU (0.07) and RTU

[151] OPTAIN | European Commission
[152] ECDP | European Commission
[153] CHIEF | European Commission
[154] U-Multirank, 2022

No	Conclusions
	(0.08). Among regional universities, this indicator is higher only at LBTU - 0.18. LiepU's indicator is 0.07; VeA 0.03; but ViA – 0. [155] [156].
S11	**Student surveys are organized every year to receive feedback** Context: With the aim of assessing various aspects of study quality in the implementation of DU study programs as well as promoting student-centred education, the Student Council organizes student surveys, which consist of 12 closed questions. The questions are based on five topics: implementation of study courses, evaluation, learning resources, faculty competence, and study program. The content of the survey is based primarily on the quality standards set out in the "Standards and Guidelines for Quality Assurance in the European Higher Education Area", adapting them to the needs of DU.[146]
S12	**DU provides students with cultural and sports activities.** Context: In the 33rd Latvian Universiade, the DU women's team took the 2nd place in beach volleyball, and the men's team took the 4th place. In 2022, the mixed choir "DUalis" participated in the opening concert of the Latgale and Vidzeme Song Festival in Cēsis and the Student Song Festival in Vilnius (Lithuania). In addition, students also have the opportunity to join the student dance ensemble "LAIMA".[157] [158] [159] Cultural and sports activities are an important element in creating a university community that would popularize DU and spread positive information about its achievements. For example, DU dance ensemble and choir can strive for higher results by setting a goal to participate in the XXVIII Latvian Song and XVIII Dance Festival in 2028.
S13	**DU provides support programs to stimulate scientific indicators** Context: DU has implemented various support mechanisms that stimulate the performance of scientific indicators, for example, payment for scientific publications, Hirsch index, internal grants in strategic specialization areas to support foreign business trips and preparation of publications. Grants are awarded through an open

[155] DU sniegtā informācija un dati (*AAK039 Doktora grāda ieguvēju skaits), Information and data provided by DU (AAK039 Number of doctoral degree holders)*
[156] Zinātniskās darbības bāzes finansējuma pārskati | Izglītības un zinātnes ministrija (izm.gov.lv) (*Reports on the base funding for scientific activities*)
[157] DU students' achievements, DU mājaslapa
[158] LASS, 2022, retrieved: https://docs.google.com/spreadsheets/d/1-NBptoQl_foX1woQQmV4a0LJ5MsF-UKGsnBwZFVJNQg/edit#gid=825657245
[159] DU mixed choir, https://du.lv/jauktais-koris-dualis/

No	Conclusions
	competition to full-time or part-time doctoral students and applicants for a scientific degree. [160] [146]
S14	**DU owns unique research resources both at the Latvian and international level** Context: DU can offer unique opportunities for research, education and cooperation with other organizations. This is one of DU's competitive advantages, which can attract both local and foreign students and researchers. DU has access to such databases as the Latgale Database, the Oral History Centre (an archive of oral history sources is available), the Biosystematics Database, and other databases that are valuable in various studies and that can be used to collaborate with institutions in other countries or other interested stakeholders. [161]
S15	**A description of the quality management system has been developed** Context: DU's quality management policy has been defined in accordance with DU values and is based on an excellence approach, using the internationally recognized EFQM (European Foundation of Quality Management) excellence model, as well as in accordance with the quality management principles TQM (Total Quality Management). Based on the assessment of DU's internal quality management system prepared by KPMG Baltics and foreign experts, recommendations are made regarding the implementation of employee surveys, the development of regular data analytics solutions, the development of a risk management policy, and other measures.[147] [162]
S16	**Successful takeover of Daugavpils University Medical College and Latvian Institute of Aquatic Ecology** Context: In 2018, DU acquired the Medical College and the Latvian Institute of Aquatic Ecology (LIAE), both institutions being insolvent. After the takeover, their financial results have significantly improved. Medical College is developing existing and creating new programs in healthcare and social care. LIAE has improved its scientific indicators after the takeover, receiving a rating of 3 (good) in the IESIA.[147] By taking over the agencies, DU is able to ensure the modernization of governance, using all the resources available.
S17	**DU obtains additional income by offering part of the study building for rent**

[160] DU doktorantūras grantu konkursa nolikums (DU Doctoral Grant Competition Regulations)
[161] Zinātnisko institūciju gada pārskati par zinātnisko darbību (Annual reports of scientific institutions on scientific activities)
[162] DU kvalitātes vadības sistēmas apraksts (*Description of DU Quality Management System*), NZDIS, retrieved: NZDIS (sciencelatvia.lv)

No	Conclusions
	Context: Currently, part of the DU study building is rented out to an IT company located at Parādes Street 1, using it as an office for approximately 200 employees.[216]
S18	**Established cooperation with various institutions in the implementation of projects** Context: Cooperation with LIAA, attracting companies that require the involvement of researchers and cooperation with LPR and municipalities. Joint projects with the Nature Protection Agency, the European Commission, Jēkabpils Municipality, VCCF, MoSARD. Projects are related to both international research in the fields of natural sciences, humanities and social sciences, as well as projects not related to scientific activity, but ensuring cooperation in the national and international scientific community.[101]
S19	**Developed cooperation with other higher education and scientific institutions at the international level** Context: DU promotes the development of internationalization by cooperating with 43 institutions abroad – 44% in the Eastern and Western Europe, 40% in Central, South and East Asia, 9% in North America and 7% in the Middle East[163].Most of the established cooperation is with universities, but approximately 7% of the institutions are scientific institutions in the natural sciences. One of such institutions is Virginia Polytechnic Institute and State University, which is included in the international university ranking THE at 251-300th place. [164]
S20	**DU study programs are available to foreign students on a platform with other European universities** Context: Cooperation has been established with the DreamApply platform, through which foreign students from all over the world can apply to DU study programs, in order to increase the total attraction of foreign students.[147][165].
S21	**In recent years, significant measures have been taken to centralize governance issues, which facilitate the everyday life of academic staff and students** Context: DU has taken measures to modernize governance in recent years, introducing such e-solutions as: document management system Namejs, employee self-service system Horizon HoP, expansion of the functions of the DU Information System (DUIS)

[163] Sadarbības partneri (*Cooperation Partners*), DU, retrieved from: https://du.lv/par-mums/par-universitati/sadarbibas-partneri/
[164] World University Rankings 2023 | Times Higher Education (THE)
[165] DreamApply, DU: Apply online! - Daugavpils University (du.lv)

No	Conclusions
	software, improvement of the e-study environment Moodle and improvement of the DU website[166]. In interviews with DU representatives, these improvements were evaluated positively, confirming that the time required for DU staff to perform daily administrative work has been reduced[147].
S22	**Significant DU infrastructure improvements have been made in recent years.** Context: DU has taken measures to modernize and ensure accessibility of infrastructure over the past eight years, actively working on projects funded by ERDF and ESF for the implementation of innovations, research development and equipment modernization. For example, the development of research infrastructure in smart specialization areas, modernization of information and technical equipment, modernization of laboratory equipment. Implemented projects: • Development of research infrastructure in smart specialization areas and strengthening institutional capacity at DU (3 million EUR); • Modernization of STEM, healthcare and art study programs at DU (1.4 million EUR); • Improving the efficiency of DU governance and resource management (184,000 EUR). According to data provided by DU, investments in new equipment amount to 6.1 million EUR or 2.6 thousand EUR per student over the past 5 years (2018-2022). The proportion of capital expenditure in total expenditure in 2015-2022 was on average 13% (7% in 2022, 14% in 2021, 30% in 2020, 31% in 2019, 7% in 2018 and 1% in 2017)[167].
S23	**Substantial investments were made in improving the infrastructure of university buildings** Context: Significant energy efficiency improvement renovations were carried out to ensure the sustainability of university operations, along with other infrastructure modernization works in 7 buildings (increasing building energy efficiency, smart energy management, and the use of renewable energy resources), which positively affect the learning process and scientific activities. Implemented projects include:

[166] Assessment of improvements made (KPMG Baltics Ltd., 2022)
[167] Information compiled by DU in CSB tables (*AII006 Investīcijas renovācijā, remontdarbos un būvdarbos uz vienu studējošo pēdējos 5 gados, ALF008 Kapitālo izdevumu īpatsvars no kopējiem izdevumiem, AII003 Investīcijas jaunās/modernās iekārtās un aprīkojumā uz vienu studējošo pēdējos 5 gados*) (*AII006 Investments in renovation, repair and construction works per student in the last 5 years, ALF008 Share of capital expenditure in total expenditure, AII003 Investments in new/modern facilities and equipment per student in the last 5 years*)

No	Conclusions
	• Energy efficiency improvement for DU study buildings at Vienības Street 13 and Parādes Street 1 (1.8 million EUR and 1.5 million EUR); • Energy efficiency improvement for DU dormitories at Parādes Street 11, Vaļņu Street 29, Sporta Street 6 and 8 (681,000 EUR, 510,000 EUR, 622,000 EUR, and 965,000 EUR); • Energy efficiency improvement for DU sports complex at Kandavas Street 1 (696,000 EUR). Investments in renovations and repair work over the last 5 years (2018-2022) amount to 6.3 million EUR, or 2.7 thousand EUR per student.[167] [168].
S24	**Implementation of digitized solutions for program development and research processes.** Context: During the Covid-19 pandemic, e-solutions necessary for quality education were developed to ensure effective online learning, including the enhancement of the study environment. For example, Zoom (for lectures), Moodle (e-learning environment), etc.[147]
S25	**Various sustainable solutions were introduced to support DU work.** Context: Interviews mentioned minor sustainability solutions implemented in DU's daily operations, indicating the university's "green choice". For example, the use of solar collectors in the dormitory at Sporta Street, the use of four electric cars in daily chores, and the implementation of remote building management systems.[147]
S26	**The university's accessibility for students with special needs is ensured.** Context: The university buildings are fully equipped and accessible to students with special needs, indicating provided accessibility of study infrastructure. In 2016, Daugavpils received the Apeirons award "Education for All".[147] [169]

Weaknesses

[168] ERDF project reports
[169] LA, 2016 https://www.la.lv/ne-tikai-ieklut-eka-bet-ari-parvietoties-invalidu-apvieniba-apbalvo-labakos-vides-pieejamibas-veicinatajus

No	Conclusions
W1	**In 2021, DU did not meet the criterion for the university of science status "at least 1,000 indexed scientific publications in Web of Science and Scopus databases over five years."** Context: DU's publication count from 2016 to 2020 reached 860, and from 2017 to 2021, 914.[170]. One component of the base research funding calculation includes the number of publications, which will be assigned a coefficient according to the journal's impact factor. This coefficient accounts for 15% of the base research funding.138
W2	**The scientific results of the Mathematics, Physics, and Chemistry research programs in the 2019 International Evaluation of Scientific Institutions Activity were weak.** Context: DU received a low rating in the 2019 International Evaluation of Scientific Institutions, where the Mathematics, Physics, and Chemistry research program received an overall score of 1 (weak). It was emphasized that the program did not fully utilize interdisciplinary collaboration opportunities. The program has low social and economic impact, and the results are mainly published in low-impact journals.[17]
W3	**Insufficient development of technology transfer, innovation, and industry collaboration**. Context: Since 2018, funding for DU's Technology Transfer Contact Point operations has not been continued, and as a result, active technology transfer is not being realized. DU is currently not generating patents or intellectual property revenue, as all patents have expired.[171].
W4	**High fragmentation of study programs, leading to inefficient resource allocation within the university.** Context: In the 2022/2023 academic year, DU offers 53 higher education programs, of which 16 (3 bachelor's programs including professional ones, 6 masters' including professional, 7 doctoral) have fewer than 10 students. Currently, the most endangered are the physics and mathematics bachelor's programs, where in 2021, only 7 students studied physics, but in 2022, none. Similarly, in 2021, the mathematics bachelor's program had 8 students, but this decreased to 4 in 2022. Although small group implementation promotes a more personalized approach, with fewer than 5 students in a group, contact hours are reduced, which means fewer lectures for students than

[170] The number of indexed scientific publications on Scopus and Web of Science within the 5-year period
[171] DU gada budžeta izpilde *(AAK044 Ieņēmumu no intelektuālā īpašuma īpatsvars kopējos ieņēmumos), DU annual budget execution (AAK044 Share of income from intellectual property in total income)*

No	Conclusions
	originally planned at an optimal student count. As a result, students are not provided with a full study process and cannot master the program material adequately.[172]. There is also a risk of losing the Law Studies bachelor's program, which may not receive accreditation, as no DU graduates have successfully passed the state's unified lawyer professional qualification exam since its introduction.
W5	**Insufficient integration of research into the study process.** Context: During interviews, it was indicated that students have several opportunities to participate in research (internal grants, involvement in EU projects with professors, etc.), but this is rarely done and not promoted among students. It may be necessary to further develop a positive attitude towards student involvement in research and to popularize such opportunities through various events, including expanding cooperation in national and international scientific arenas[173].
W6	**Need to improve digital and foreign language competencies of the staff.** Context: Policy documents have addressed the assessment of competencies in universities as well as the implementation of improvement tools in the teaching process. Additionally, during interviews, it was noted that one reason some staff do not utilize mobility opportunities is insufficient English language skills. As a result, DU staff have limited opportunities to participate in exchange and collaboration projects with other universities[174].
W7	**Slow renewal of DU staff.** Context: Over the past few years, DU's scientific staff has remained virtually unchanged, indicating that new staff are not being recruited. One potential aspect related to staff renewal is focusing on the development of "homegrown" scientific staff, which is significant, but it is also necessary to promote attraction of human resources from outside to increase intellectual capacity, exchange ideas, and create collaboration opportunities. Although currently 48% of academic staff are aged 30–49, 24% are nearing retirement age (60+), and the average age of scientific staff is 56, indicating a significant risk regarding staff renewal in the coming years and the need for a comprehensive personnel development policy[175].

[172] DU apkopotā informācija *(Pilna laika studentu sadalījums pa studiju programmām pārskata gadā 1.oktobrī CSP tabulās), DU compiled information (Distribution of full-time students by study programs in the reporting year as of October 1 in CSB tables)*
[173] Interviews with DU representatives
[174] Augstākajā izglītībā studējošo kompetenču novērtējums un to attīstības dinamika studiju periodā (1.kārta) | Pētījumu un publikāciju datu bāze (mk.gov.lv), (*Assessment of competences of students in higher education and their development dynamics during the study period (1st round) | Research and Publications Database)*
[175] Information and data provided by DU (*Proportion of academic staff aged 30-49, Proportion of scientific staff aged 30-49 in scientific staff)*

No	Conclusions
W8	**Lack of mechanisms for staff development policy that ensure systematic and regular feedback from DU employees.** Context: Currently, DU does not conduct staff satisfaction surveys, but such surveys are necessary to assess staff needs, especially to identify interests and perceptions [174] [167].
W9	**Incomplete communication between students and university administration** Context: During interviews, it was repeatedly emphasized that information from the administration is often delayed, and students more frequently obtain information from student self-governance. This highlights the need for modernization of governance and increased student involvement in DU's development and management. Regarding the question of whether all information related to the study process was communicated to students in a timely manner, 36.2% responded "always," 34.4% "frequently," 19% "sometimes," indicating room for improvement. Students also note that, for successful mastery of study programs, issues have been caused by lecturers with whom effective remote communication cannot be established—for example, unanswered emails—thus emphasizing the need to improve lecturers' communication with students.
W10	**Unbalanced diversification of revenue sources** Context: In 2021, the State Budget and EU funding made up 90% of DU's total revenue, of which approximately 56% was state funding, a relatively high proportion compared to other Latvian universities. For example, in 2021, the State Budget and EU funding accounted for 83% of ViA, 72% of RTU, 70% of LBTU, 67% of LU, and 56% of RSU[176]. DU needs to build a stable financial foundation to ensure the necessary resources for ongoing activities and development. Currently, DU's income from scientific activities is heavily dependent on the availability of various projects and personnel capacity. At present, revenue from scientific activities averages around 16% of total income. Compared to other universities, this indicator is very low; for example, LBTU's share of income from scientific activities is about 34%, LU's is 32%, but relative to RSU at 12%, it is comparable or even higher[177]. Since 2016, income from contractual work has not exceeded 2% of DU's total income, indicating that the university has not developed a stable, non-state-funding-dependent revenue flow. Additionally, according to the new calculation of science base funding,

[176] Valsts kase (*State Treasury*) https://www.kase.gov.lv/
[177] Zinātnes un augstākās izglītības finansējuma sasaiste ar zinātnisko institūciju starptautiskā novērtējuma rezultātiem (mk.gov.lv) (*Linking science and higher education funding to the results of international evaluation of scientific institutions*)

No	Conclusions
	the volume of income from contractual work will account for 10% of the science base funding amount.[178] [179].
W11	**Lack of a structured approach for developing lifelong learning programs** Context: In 2023, DU's Lifelong Learning Center employs one person, but to ensure higher quality education that provides services to society, it is necessary to involve faculties more directly in program development[174]. One example could be the Continuing Education Center established at RSU, which is run by six people and is responsible for program coordination and organization. Professors involved in relevant fields are responsible for program content.[180]
VP12	**No goal cascading system** Context: Goal cascading is a process where higher-level goals are broken down into smaller and more specific goals to be achieved in order to reach broader objectives. This conclusion also aligns with the recommendation of KPMG experts, as a goal cascading system helps improve strategic planning, ensures a coherent set of achievable goals across all university units, and promotes governance modernization. [174] [181]
W13	**Participating in International and National Projects, DU does not take a leading partner role** Context: While participating in various projects abroad, DU so far has not undertaken the role of lead partner or coordinator.[174] [180]
W14	**Insufficient dissemination of information about DU's achievements in the public information space** Context: To promote and improve the university's image, more focus should be put on publicizing DU's good and positive achievements on social media[174] [182]. Additionally, it is necessary to build a university community through interest groups (e.g., dance ensemble, choir, sports activities, etc.) to foster social responsibility, cultural, and sports events, which will attract positive attention from the public.

[178] DU apkopotā informācija CSP tabulās *(AM055 Ieņēmumu koncentrācija, ALF012 Ieņēmumu zinātniskajai darbībai īpatsvars no kopējiem ieņēmumiem), DU information compiled in CSB tables (AM055 Revenue concentration, ALF012 Share of revenue for scientific activities from total revenue*
[179] Annual reports of scientific activities of scientific institutions, NZDIS (Share of revenue from contract work)
[180] Tālākizglītības centrs (*Continuing Education Centre*), RSU, retrieved: https://www.rsu.lv/talakizglitibas-centrs
[181] KPMG recommendations

No	Conclusions
W15	**Underdeveloped relationships with alumni and patrons** Context: The university does not conduct alumni monitoring (statistics collection, surveys, etc.), nor has it established an alumni association that would organize systematic events with alumni [174]. For example, RTU alumni have the opportunity to join the Alumni Association, which allows graduates to attend RTU-organized events free of charge or at a reduced rate, participate in visits to companies and RTU labs, and take part in various seminars and sports competitions[182]. RSU's Alumni Association plans to establish scholarship funds for both students and faculty.[183]
W16	**Incoming international academic and research staff mobility is relatively small and mainly from nearby countries** Context: Since 2018, DU's incoming staff number averages 25 people per year. The member states involved in incoming mobility are mostly Poland, Lithuania, and Bulgaria[184].
W17	**A relatively small share of foreign students focuses on full-time programs** Context: DU is successful in attracting students for short-term study periods, but there is not as high a demand for full-time studies[185].
W18	**Insufficient digitization of study program materials to ensure online accessibility** Context: During interviews, arguments were repeatedly made that digital resources and access to study materials (online library, materials after lectures, lecture recordings) are insufficient. Regarding how often instructors recommended learning resources for course study and whether these resources were available and useful, 42.3% responded "always," 30.7% "frequently," and 20.5% "sometimes." Overall survey data indicates a relatively good rating, but there is room for improvement of the teaching process.[186]
W19	**Some DU buildings require certain improvements**

[182] Absolventu asociācija (*Alumni Association*), RTU, retrieved: https://www.rtu.lv/lv/universitate/struktura-un-vadiba/citas-strukturvienibas/rtu-absolventu-asociacija
[183] Stipendiju fonds (*Scholarship Fund*), RSU, retrieved: https://www.rsu.lv/stipendiju-fonds
[184] DU compiled information (*AKI018 Incoming scientific staff mobility, AKI036 Incoming academic staff mobility*)
[185] DU compiled information on short-term foreign students
[186] DU student survey, 2022/2023

No	Conclusions
	Context: Based on interviews, it was concluded that various improvements are needed in dormitories, including increasing accessibility for students with special needs. Additionally, the need to renovate the sports complex was repeatedly mentioned to better utilize it for education and other services[174].
W20	**Part of DU's real estate is not fully utilized** Context: Currently, DU owns unused buildings (including historic ones), which should be optimally used either for educational purposes or by attracting tenants to generate additional revenue[174].

Opportunities

No	Conclusions
O1	**Daugavpils as a city with potential to become an international education and science hub, as identified in policy planning documents** Context: According to policy planning documents, the economic development of Daugavpils is focused on several promising business directions: metal fabrication and vehicle manufacturing, food production, optical equipment manufacturing, energy, clothing production, transit and logistics services, IT services, tourism, healthcare services, sports services, creative industries, and trade. DU can offer specialized training for these sectors in natural sciences and IT, social sciences, business, and law, humanities and arts, as well as in healthcare and social welfare. It should also be emphasized that the importance of education is highlighted in these policy documents, with opportunities for development directly through DU.[187] [188] [189] [190] [191].
O2	**Development opportunities for a science centre in cooperation with Daugavpils City Municipality** Context: One of the vision dimensions outlined in the sustainable development strategy of Daugavpils City and the Augšdaugava Municipality up to 2030 is economic growth

[187] Latvijas ilgtspējīgas attīstības stratēģija 2030 (*Latvia's Sustainable Development Strategy 2030*), retrieved: https://www.pkc.gov.lv/lv/valsts-attistibas-planosana/latvijas-ilgtspejigas-attistibas-strategija
[188] Nacionālās attīstības plāns 2021.-2027. gadam (*National Development Plan*), retrieved: https://www.pkc.gov.lv/lv/nap2027
[189] Latgales plānošanas reģiona attīstības plāns 2027.gadam (*Latgale Planning Region Development Plan 2027*), retrieved: https://lpr.gov.lv/lv/padome-l2f3/planosana/
[190] Daugavpils pilsētas ilgtspējīgas attīstības stratēģija 2014.-2030. gadam (*Daugavpils City Sustainable Development Strategy 2014-2030*), retrieved: Strategija2014-2030_.pdf (daugavpils.lv)
[191] Daugavpils valstspilsētas un Augšdaugavas novada ilgtspējīgas attīstības stratēģija līdz 2030. gadam (*Daugavpils City and Augšdaugava Municipality Sustainable Development Strategy until 2030*), retrieved: I_IAS_04102021_gala.pdf (daugavpils.lv)

No	Conclusions
	and accessibility, with one priority being the development of a science territory and the development of an education and science centre (such as Daugavpils University's Study and Research Centre "Ilgas", etc.)[192]. By developing a science centre, DU will be able to ensure access to its infrastructure even outside the university's internal needs.
O3	**Employer and global development trends creating demand for new and existing study programs** Context: During interviews, it was repeatedly suggested to continue developing and implementing new study programs that are directly based on employer demand (e.g., data analytics, cybersecurity, etc.) and in sectors with significant labour shortages (nursing, social work, etc.)[174]. There would also be demand for lifelong learning programs (fire safety, civil protection, education, etc.), which should be adapted to new curricula and to the demands from local governments and other state institutions. The development of these sectors is supported, for example, by the implementation of the State Defence Service in 2023. Additionally, one of the high-demand program examples is the number of hours required for recrediting sports pedagogues to improve qualifications, which DU can offer. Possibility of developing joint programs with international universities, such as double diplomas. Offering work-based learning in higher education programs (e.g., professional bachelor's degrees). Development Opportunities for Education Offers in Sustainability Issues – the introduction of a general "Sustainability" course in all study programs, the implementation of "Green" courses on emissions and taxonomy issues, for example in modular format[192]. Interdisciplinary program development in IT and its application in Humanities and Arts — based on the Ministry of Economics' forecast of growth in the labour market specifically in information technology and communication, which presents an ideal opportunity for DU to develop a relevant program[193].
O4	**Creating a new framework for academic career development** Context: A clearly defined career model can help attract and retain highly qualified personnel (including promoting pedagogical excellence), improve the quality of education and research, increase collaboration in interdisciplinary projects, enhance

[192] Eiropas zaļais kurss, Eiropas Komisija (*European Green Deal, European Commission*), retrieved: Eiropas zaļais kurss (europa.eu)
[193] Darba tirgus prognozes līdz 2040.gadam, Ekonomikas ministrija (*Labour Market Forecasts to 2040, Ministry of Economics*), retrieved: Darba tirgus prognozes 2040 (em.gov.lv)

No	Conclusions
	the university's reputation, and promote institutional modernization. The establishment of a tenure system.[194]
O5	**Establishment of a Doctoral School** Context: The new doctoral model is based on support mechanisms motivating doctoral students, such as changes in doctoral funding approaches—an allocated salary of at least EUR 1000 gross per month. Additionally, the new model envisages that doctoral programs will be organized centrally within doctoral schools. Such an arrangement will help ensure qualified and well-prepared supervisors and advisors for doctoral theses.[195]
O6	**MoES has identified three strategic specialization areas fundamental for DU** Context: In June 2022, the government approved the initial strategic specialization for higher education institutions in each of their scientific fields, where DU was assigned three areas: natural sciences, social sciences, and humanities and arts. Identifying these areas will help DU focus on research directions and programs that align with the designated specialization areas and the university's capacity.[196]
O7	**Amendments to the Higher Education Institution Law focus more on lifelong learning** Context: The amendments to the Law on Higher Education Institutions, adopted on June 8, 2021, require universities to develop lifelong learning programs aligned with their strategic specialization areas, thereby providing services to society and regional development. Based on this, DU has the opportunity to further develop its existing lifelong learning programs and create new ones according to labor market demand (e.g., fire safety, civil protection, education). Successful program development will also create additional revenue streams for the university.[197] [198].
O8	**The Identified Latvian Smart Specialization (RIS3) Areas are linked to DU's Scientific Institute Resources and Competencies**

[194] Jauns akadēmiskās karjeras ietvars Latvijai, IZM (*New Academic Career Framework for Latvia, MoES*), 2020, retrieved: Jauns akadēmiskās karjeras ietvars Latvijai | Izglītības un zinātnes ministrija (izm.gov.lv)
[195] Jaunais doktorantūras modelis, IZM, 2020, retrieved: Jaunais doktorantūras modelis – doktorantu motivācijas rīks | Izglītības un zinātnes ministrija (izm.gov.lv) (*New Doctoral Model, Ministry of Education and Science, 2020, retrieved: New Doctoral Model – a Motivation Tool for Doctoral Students*)
[196] Par valsts augstskolu stratēģisko specializāciju, MK rīkojums (*On the Strategic Specialization of State Higher Education Institutions, Cabinet Order*), 2022, retrieved: Par valsts augstskolu stratēģisko specializāciju (likumi.lv)
[197] Augstskolu likums (*Law on Higher Education Institutions*), LR, 1995, retrieved: Augstskolu likums (likumi.lv)
[198] Grozījumi Augstskolu likumā (*Amendments to the Law on Higher Education Institutions*), LR, 2021, retrieved: Grozījumi Augstskolu likumā - Latvijas Vēstnesis (vestnesis.lv)

No	Conclusions
	Context: Implementation of the Bioeconomy Strategy (a smart specialization area) creates opportunities for DU to participate in interdisciplinary projects, potentially transferring knowledge from the Institute of Biological Sciences (biosystematics, ecology). Further investments in ICT research can boost DU's contribution to the ICT smart specialization area. Additionally, the Ministry of Economics forecasts significant growth in the ICT sector, which will increase demand for new research and projects in this field.[194] [199]. Funding for specialization development is also available through ERDF under measure 1.1.1. SSG [200]. This opportunity also opens the potential for collaboration with LIAA business incubators in Daugavpils.
O9	**Implementation of scientific integrity guidelines set by the Horizon Europe Program** Context: Based on the principle of academic freedom, specific scientific integrity guidelines have been established to ensure the highest standards of research integrity. The main principles target three types of scientific misconduct: plagiarism, falsification of results (manipulation of research data), and fabrication of results (inventing data or results). To prevent these violations, Horizon Europe has developed guidelines emphasizing a supportive research environment, participation in research integrity training, support and quality control during research, mechanisms for research ethics, interdisciplinarity, and processes for detecting and resolving breaches of scientific integrity.[201]
O10	**Opportunity to participate in Horizon Europe Projects and Erasmus+** Context: Horizon Europe is built around a 3-pillar model supporting scientific excellence, addressing global challenges and European industrial competitiveness,

[199] RIS3 vadības grupas - RIS3 pārvaldības operacionālais līmenis, LIAA (*RIS3 Steering Committees - Operational level of RIS3 management*), 2022, retrieved: RIS3 vadības grupas - RIS3 pārvaldības operacionālais līmenis | Latvijas Investīciju un attīstības aģentūra (liaa.gov.lv)

[200] Darbības programmas "Izaugsme un nodarbinātība" 1.1.1. specifiskā atbalsta mērķa "Palielināt Latvijas zinātnisko institūciju pētniecisko un inovatīvo kapacitāti un spēju piesaistīt ārējo finansējumu, ieguldot cilvēkresursos un infrastruktūrā" 1.1.1.5. pasākuma "Atbalsts starptautiskās sadarbības projektiem pētniecībā un inovācijās" pirmās, otrās un trešās projektu iesniegumu atlases kārtas īstenošanas noteikumi (likumi.lv) (*Implementation rules for the first, second and third round of project application selection under the specific support goal 1.1.1. "Increase the research and innovation capacity and ability of Latvian scientific institutions to attract external funding by investing in human resources and infrastructure" of the Operational Program "Growth and Employment" 1.1.1.5. measure "Support for international cooperation projects in research and innovation")*

[201] Guideline for Promoting Research Integrity in Research Performing Organisations, retrieved: guideline-for-promoting-research-integrity-in-research-performing-organisations_horizon_en.pdf (europa.eu)

No	Conclusions
	and fostering an innovative Europe, additionally strengthening the European Research Area (ERA).[202]. Within Erasmus+, projects are categorized into three activity streams: 1) Enhancing cooperation opportunities in higher education 2) Transforming partnerships in higher education 3) Structural reform projects[203]. Both programs promote broad collaboration and partnership opportunities through staff mobility.
O11	**The number of students worldwide continues to grow** Context: Based on current trends, it is forecast that the total number of students in higher education will reach nearly 380 million by 2030 (currently 230 million), 472 million by 2035, and over 594 million by 2040[204]. Such rapid growth could positively influence DU's ability to attract more international students. In recent years, the fastest growth has been observed in the Asia-Pacific region, but attention should also be given to the high number of students in Africa, where in 2015 approximately 715 million people aged 18–23 lived. The UN forecasts that this region will reach its growth peak in 2030, after which it will continue to grow at a slower pace.[205].
O12	**Engagement of competent specialists for service provision, project proposal development, and project management** Context: During interviews, the issue was repeatedly raised that the university currently lacks the capacity to prepare applications for various projects as fully and as high-quality as possible. There was also an overall expressed need for people who could assist with project coordination and writing. Such specialists would ensure more successful competitiveness in the project application process. This practice is common in many foreign universities, which establish project management offices (Project Management Office) within their structural units.[206]

[202]Apvārsnis Eiropa, ES Padome (*Horizon Europe, EU Council*), retrieved: Apvārsnis Eiropa - Consilium (europa.eu)
[203] Programma "Erasmus+", Jaunatnes starptautisko programmu aģentūra (*Erasmus+ program*, *Agency for International Youth Programs*), retrieved: Erasmus+ programma - Jaunatnes starptautisko programmu aģentūra
[204] Study projects dramatic growth for global higher education through 2040 - ICEF Monitor - Market intelligence for international student recruitment
[205] Higher education figures at a glance, UNESCO, 2022, retrieved: F_UNESCO1015_brochure_mech_EN
[206] Role of the Project Management Office in University Research Centres, https://www.mdpi.com/2071-1050/13/21/12284

No	Conclusions
O13	**Need to implement data management principles, ensuring data openness** Context: In 2019, the Latvian Open Data Strategy was approved, aimed at ensuring data openness in the public sector. Higher education institutions and research entities will need to improve their capacity in data management, database creation, including database integration with the European Open Data Space. It is also noted that sustainable and intelligent data sharing is one of the priorities of Digital Transformation Guidelines 2021-2027.[207] [208]
O14	**Securing funding from EU Funds Programs for 2021–2027** Context: Opportunity to attract EU funding under one of the priorities. One of the main priorities of EU and national planning documents until 2027 is human capital – support will be available for activities such as the reform of academic career system, personnel training, recruitment, and development. Although most of the focus will be on investment in human capital, there will also be opportunities to secure funding for the digitalization in higher education. In the science field, development of applied research programs, research on healthy and active lifestyles, and support for innovation and technology development (grants for commercialization of research results) will also be relevant. Additional support will be provided for participation in the Horizon Europe program.[209]
O15	**Securing funding outside the 2021–2027 EU Funds Program** Context: Securing funding from sources other than the EU funds. Examples include sources such as: COST [210], ERA-NET [211], EUREKA [212], Horizon, EEA and Norwegian grants[213].
O16	**Support programs for students from Daugavpils City Municipality** Context: Since 2020, Daugavpils City Council has established procedure for awarding scholarships to medical residents and students in health care programs.[214]. DU has the opportunity to develop into a valuable educational centre by offering high-quality health

[207] Latvijas atvērto datu stratēģija, VARAM (*Latvian Open Data Strategy, MoSARD*), retrieved: VARAM_info_zin_dati_1308.1376.docx (live.com)
[208] Digitālās transformācijas pamatnostādnes 2021.-2027.gadam, VARAM (*Digital Transformation Guidelines 2021-2027, MoSARD*), retrieved: Vides aizsardzības un reģionālās attīstības ministrija (varam.gov.lv)
[209] ES fondi 2021-2027 (*EU funds*), retrieved: ES fondi 2021 - 2027
[210] COST | Latvijas Zinātnes padome (lzp.gov.lv)
[211] ERA-NET
[212] EUREKA
[213] Visas programmas - EEZ un Norvēģijas finanšu instrumenti (eeagrants.lv)
[214] Noteikumi par pašvaldības stipendiju piešķiršanas kārtību, Daugavpils pilsētas dome (*Regulations on the procedure for granting municipal scholarships, Daugavpils City Council*), 2020, retrieved: 04_28-05-2020_noteik_kons-v001.docx (live.com)

No	Conclusions
	care study programs, improving them, and attracting students through scholarships. These scholarships will also help make studies more accessible, reduce student debt, and strengthen existing cooperation with Daugavpils healthcare institutions.
O17	**A lot of practice opportunities in healthcare in Latgale Region's healthcare institutions** Context: A geographically advantageous location where the Daugavpils Regional Hospital (the largest healthcare provider outside Riga) and the Daugavpils Psychiatric Hospital are situated near DU, providing extensive practical training opportunities for healthcare students. The proximity of the Kraslava Regional Hospital also creates demand for healthcare specialists.[174]
O18	**Interest and demand from foreign students for short-term programs** Context: Due to changing geopolitical situations, there has been high demand from foreign students for mobility opportunities that can provide learning Russian language in short-term programs. DU can leverage this as an opportunity, considering its advantage in this area.[215]
O19	**Baltic States internationally are associated with IT and Advanced Technology Hub** Context: Considering the growth of the IT industry and the current development pace in Latvia (which is among the first countries to implement 5G networks and ranks 9th in EU countries with the highest e-government maturity), these trends create an image abroad of Latvia as a developed IT technology country. This will facilitate more active attraction of foreign students or other cooperation partners.[216]
O20	**Development of technology-enriched learning** Context: To the extent possible, various IT tools should be involved in learning, considering the technology in all strategic specialization areas and how each of the areas is able to use these tools most effectively. In addition, taking into account the latest technology trends, DU has the opportunity to consider integrating artificial intelligence into the learning and research process, which will ensure institutional modernization.[217]

[215] Interviews with DU representatives
[216] Information and communications technology | Invest in Latvia
[217] Top 5 EdTech trends for 2023 | Cambridge

No	Conclusions
	One of the key elements of the Latvian Education Development Guidelines for 2021-2027 is an individualized learning approach, in which technologies are actively used to provide individualized learning solutions[218].
O21	**Demand from Latgale Region, as well as Latvian and international companies for equipment available at DU for contract work** Context: More and more companies are paying attention to research and development to create new products and/or improve their productivity. DU can potentially become a source from which companies can obtain research solutions and practical knowledge. This goal has also been defined at the national level in the Guidelines for the Development of Science, Technology and Innovation, «To develop R&D capacity to increase business productivity and improve the efficiency of public administration processes to promote balanced development of Latvian regions» and «To develop new technologies for the creation of innovative products and services, promoting resource efficiency of enterprises, technological transformation and inclusion in value chains of various scales».[216] [219]
O22	**Opportunity to establish certified laboratories to expand the offer of contract work provided to companies** Context: DU currently has equipment available that can potentially be made more accessible and offered for use as a service to external stakeholders (for example, companies that need to carry out research work). This is an opportunity to potentially create additional cash flow, which will also increase the proportion of contract work in the total revenue concentration[216].

Threats

No	Conclusions
T1	**Population decline trends in LPR and Latvia** Context: In the period from 2012 to 2022, the population in Latvia decreased by 8%; in Daugavpils and LPR it decreased more rapidly, by 13% and 17% respectively. The natural increase in population in Latvia was negative from 2012 to 2021 (by 88%), in Daugavpils and LPR the natural increase was 109% and 47% more negative respectively. Although the migration balance also remains negative, it has significantly improved in 2012-2021 in Latvia, LPR and Daugavpils. Overall, the negative trends in population changes indicate that the population will continue to

[218] Par Izglītības attīstības pamatnostādnēm 2021.–2027. gadam (likumi.lv) (*Latvian Education Development Guidelines for 2021-2027*)
[219] Zinātnes, tehnoloģijas attīstības un inovācijas pamatnostādnes 2021.-2027.gadam (*Guidelines for the Development of Science, Technology and Innovation 2021-2027*), retrieved: download (izm.gov.lv)

No	Conclusions
	decrease for the next five years and longer, thus creating significant risks for attracting and retaining both students and staff.[220][221]
T2	**Low number of students taking the general secondary education natural science exams** Context: In general, fewer and fewer students take the national centralized exam in natural sciences every year. In 2022, 2,340 students took the national exam in natural science (physics, chemistry, biology), however, their number was higher in previous years – 2,654 students in 2021 and 2,603 students in 2020.[222]
T3	**High costs and certain language requirements for submitting publications in top-tier journals** Context: Publishing in top-tier journals is characterized by high costs, which employees are not always able to cover (one publication costs ~1,000 EUR, without additional translation costs). As a result, many scientific articles are published in lower-tier journals, which require less payment and consume less time. In regard the university of science criterion of >1000 publications in the last 5 years, publications are counted only if they are published in top-tier journals. Sometimes there are also situations when scientists publish in journals that will publish their article only after 2 years. In addition, only publications in English are counted in but considering that one of the areas of specialization of DU is the Humanities, including Philology, where scientific research in Latvian studies is written in Latvian, the process is complicated. Moreover, scientific articles must be professionally translated and verified by appropriate editors, which requires additional time and costs.[216] [223]
T4	**Political decisions unfavourable for the status of DU** Context: In 2022, a typology of higher education institutions was defined and as a result university consolidation activities are being implemented[224]. Clearly unfounded and hasty political decisions may lead to uncertainty and distrust among employees, which can lead to a lack of motivation in employees, a decrease in the sense of

[220] Iedzīvotāju skaits un īpatsvars pēc dzimuma pa galvenajām vecuma grupām reģionos, republikas pilsētās, novados un 21 attīstības centrā gada sākumā 1970 - 2022. PxWeb (stat.gov.lv) (*Population and sex ratio by main age groups in regions, cities of the republic, counties and 21 development centers at the beginning of the year 1970 - 2022*)
[221] Iedzīvotāju skaits gada sākumā, tā izmaiņas un dabiskās kustības galvenie rādītāji reģionos, pilsētās un novados 1967 - 2022. PxWeb (stat.gov.lv) (*Population at the beginning of the year, its changes and main indicators of natural movement in regions, cities and counties 1967 - 2022*)
[222] Valsts pārbaudes darbi 2020./2021. m.g. Statistika | Valsts izglītības satura centrs (visc.gov.lv) (*State exams 2020/2021 academic year. Statistics | State Education Content Center)*
[223] Zinātnes un augstākās izglītības finansējuma sasaiste ar zinātnisko institūciju starptautiskā novērtējuma rezultātiem (mk.gov.lv) (*Linking science and higher education funding to the results of international assessment of scientific institutions*)
[224] Augstskolu likums (likumi.lv) (*Law on Higher Education Institutions*)

No	Conclusions
	security and the search for another job. Additionally, such a situation may also affect DU's relations with cooperation partners, for whom stability and trust are important. At the beginning of 2023, information about the reorganization of DU, potentially merging it with the University of Latvia, was released in the public space. Such consolidation poses a risk of losing DU partnerships and previously established cooperation with other universities.[225] If DU is transferred to the University of Latvia and continues to operate as a structural unit or institution, it ceases to exist as a legal entity and a party to the contract, and therefore risks may arise in the conclusion of contracts. Therefore, it is recommended to conclude a tripartite agreement with MoES, creating additional security and a mechanism for ensuring the fulfilment of obligations.[226]
T5	**Rapid changes in the economic, political and social environment** Context: The political and economic environment of Latvia is characterized by a high uncertainty in recent years, as, for example, the Foreign Investment Environment Index of the Foreign Investors Council emphasizes that the war started by Russia in Ukraine has affected the entire Baltic region – uncertainty is worrying investors, which also affects the volume of investments in Latvia. As a result, the GDP growth rate has decreased and the Bank of Latvia predicts a short-term and shallow recession in 2023, with growth returning in 2024. It should also be noted that inflation in Latvia at the end of 2022 was 18% (average level in the EU was 10.4%)[227].
T6	**In the Latvian labour market, incl. other Latvian universities, salaries are mainly higher than the ones provided for DU staff** Context: In 2021, the average monthly salary (gross) in Daugavpils is 890 EUR, in the Latgale statistical region – 873 EUR –, and in Latvia – 1,144 EUR[228]. Taking into account both the overall low salary for DU scientific staff compared to other universities, and the average salary in the country and the region, the low salary makes it difficult to attract new staff. Additionally, the new science base funding calculation developed by MoES includes the labour costs (salary) of scientific staff, scientific technical staff and science service staff, which will constitute 40% of the amount of science base funding.[229]

[225] Augstskolu reorganizācijas procesā valda apjukums / Raksts (lsm.lv) (*Confusion reigns in the process of reorganizing higher education institutions)*
[226] Analysis by KPMG higher education experts
[227] Prognozes | Latvijas Banka (*Forecast, Bank of Latvia*)
[228] Strādājošo mēneša vidējā darba samaksa reģionos (eiro) | Oficiālās statistikas portāls (*Average monthly wages of employees in regions (euro))*
[229] Alga (zinātniskā personāla, zinātnes tehniskā personāla un zinātni apkalpojošā personāla darbaspēka izmaksas) (*Salary (labor costs of scientific staff, scientific technical staff and scientific service staff*)), Atbalstīts jauns zinātnes bāzes finansējuma modelis | Izglītības un zinātnes ministrija (izm.gov.lv)

No	Conclusions
T7	**Cyberattacks on the university network infrastructure** Context: During the interviews, interviewees mentioned attempts were made to carry out a cyberattack on the university network. It is necessary to strengthen the university network infrastructure to prevent similar attacks in the future[216].
T8	**The rapid development of technology and artificial intelligence in the world threatens the university** The pace of technological development may contribute to the obsolescence of DU's research infrastructure, because without the necessary investments, DU is not able to renew the equipment in accordance with global trends in both scientific research and higher education. In addition, DU's infrastructure is not suitable for the use of artificial intelligence, nor is it protected from various violations of integrity by both students and researchers. DU will need to develop study programs and research opportunities in order to remain competitive against new opportunities that artificial intelligence in education will be able to offer in the future[230].

[230] 5 Ways AI Will Transform Higher Education | BestColleges

Appendix No 4 – Detailed DU 2028 implementation plan

Excel file: Detailed DU 2028 implementation plan (for internal use)

Appendix No 5 – Real estate development plan

Developed in accordance with Cabinet of Ministers Regulation No. 208 of 10.04.2018 "Procedure for the preparation of the real estate development plan of state higher education institutions and the alienation of state real estate transferred by state higher education institutions without compensation"[231]

	Type of real estate object		Location of real estate object				Status of the real estate object	Type of acquisition of the real estate object, person from whom the real estate was acquired	Balance sheet value	Condition and description	Limitations of rights	Current use or purpose of use	Planned future action, use or purpose of use	Investments made, their amount and source
	Type	Name	Address	Cadastral number	Cadastral designation	Area (m^2)								
1	Building	Study building, 1263 - Buildings intended for schools, universities and scientific research	Institūta Street 1/3, Daugavpils	05000012801	05000012801001	929.7	Property	CM Order No. 367 On the Transfer of State Real Estate to the Ownership of Daugavpils University	11778	Physical depreciation of the building 55%	Territory and objects of a cultural monument of local importance	Study building	Planned to retain ownership	
	Land	Land	Institūta Street 1/3, Daugavpils	05000012801	05000012801	2067			18967					

[231] Valsts augstskolu nekustamā īpašuma attīstības plāna sagatavošanas un valsts augstskolas bez atlīdzības nodotā valsts nekustamā īpašuma atsavināšanas kārtība (likumi.lv) (*Procedure for the preparation of the real estate development plan of state higher education institutions and the alienation of state real estate transferred by state higher education institutions without compensation*)

	Type of real estate object		Location of real estate object				Status of the real estate object	Type of acquisition of the real estate object, person from whom the real estate was acquired	Balance sheet value	Condition and description	Limitations of rights	Current use or purpose of use	Planned future action, use or purpose of use	Investments made, their amount and source
	Type	Name	Address	Cadastral number	Cadastral designation	Area (m^2)								
2	Building	Study building, 1263 - Schools, universities and buildings for scientific research	Institūta Street 1/3, Daugavpils	05000012801	05000012801002	383.8	Property	CM Order No. 367 On the Transfer of State Real Estate to the Ownership of Daugavpils University	9724.75	Physical depreciation of the building 50%	Territory and objects of a cultural monument of local importance	Study building	Planned to retain ownership	
	Building	Study building, 1263 - Schools, universities and buildings for scientific research	Institūta Street 1/3, Daugavpils	05000012801	05000012801003	117.7			2982.26	Physical depreciation of the building 45%		Study building		
3	Building	Dormitory, 1211 - Hotels and catering facilities	Parādes Street 11, Daugavpils	05000011303	05000011303001	4516	Property	CM Order No. 367 On the Transfer of State Real Estate to the Ownership of Daugavpils University	1138513	Physical depreciation of the building 28%		Dormitory	Planned to retain ownership	597535.09, ERAF
	Building	Basement, 1271 - Agricultural non-residential buildings	Parādes Street 11, Daugavpils	05000011303	05000011303002	44.3			547.41	Physical depreciation of the building 40%		Basement		

	Type of real estate object		Location of real estate object				Status of the real estate object	Type of acquisition of the real estate object, person from whom the real estate was acquired	Balance sheet value	Condition and description	Limitations of rights	Current use or purpose of use	Planned future action, use or purpose of use	Investments made, their amount and source
	Type	Name	Address	Cadastral number	Cadastral designation	Area (m^2)								
	Land	Land	Parādes Street 11, Daugavpils	05000011303	05000011303	3483			29957					
4	Building	Study building, 1263 - Schools, universities and buildings for scientific research	Saules Street 1/3, Daugavpils	05000012901	05000012901001	4335	Property	CM Order No. 367 On the Transfer of State Real Estate to the Ownership of Daugavpils University	128095	Physical depreciation of the building 55%	Territory and objects of a cultural monument of local importance	Study building	Planned to retain ownership	
	Building	Study building, 1263 - Schools, universities and buildings for scientific research	Saules Street 1/3, Daugavpils	05000012901	05000012901002	716.2			69961	Physical depreciation of the building 65%	Territory and objects of a cultural monument of local importance	Study building		
	Building	Warehouse, 1252 - Warehouses, reservoirs, bunkers and silos	Saules Street 1/3, Daugavpils	05000012901	05000012901003	150.6			1256.41	Physical depreciation of the building 60%	Territory and objects of a cultural monument of local importance	Warehouse		
	Land	Land	Saules Street 1/3,	05000012901	05000012901	3787			35276					

	Type of real estate object		Location of real estate object				Status of the real estate object	Type of acquisition of the real estate object, person from whom the real estate was acquired	Balance sheet value	Condition and description	Limitations of rights	Current use or purpose of use	Planned future action, use or purpose of use	Investments made, their amount and source
	Type	Name	Address	Cadastral number	Cadastral designation	Area (m^2)								
			Daugavpils											
	Building	Study building, 1263 - Schools, universities and buildings for scientific research	Saules Street 1/3, Daugavpils	05000012901	05000012901002	716.2			69961	Physical depreciation of the building 65%	Territory and objects of a cultural monument of local importance	Study building		
	Building	Warehouse, 1252 - Warehouses, reservoirs, bunkers and silos	Saules Street 1/3, Daugavpils	05000012901	05000012901003	150.6			1256.41	Physical depreciation of the building 60%	Territory and objects of a cultural monument of local importance	Warehouse		
	Land	Land	Saules Street 1/3, Daugavpils	05000012901	05000012901	3787			35276					
5	Building	Garage, 1274 - Other, previously unclassified buildings	Saules Street 1/3, Daugavpils	05000012901	05000012901004	25.7	Property	CM Order No. 367 On the Transfer of State Real Estate to the Ownership of Daugavpils University	277.22	Physical depreciation of the building 30%		Garage	Planned to retain ownership	
6	Building	Dormitory, 1211 - Hotels and	Sporta Street 6, Daugavpils	05005010204	05000010202001	5343	Property	CM Order No. 367 On the Transfer of State Real	1203862	Physical depreciation of the		Dormitory	Planned to retain ownership	965968.84, ERAF

	Type of real estate object		Location of real estate object				Status of the real estate object	Type of acquisition of the real estate object, person from whom the real estate was acquired	Balance sheet value	Condition and description	Limitations of rights	Current use or purpose of use	Planned future action, use or purpose of use	Investments made, their amount and source
	Type	Name	Address	Cadastral number	Cadastral designation	Area (m^2)								
		catering facilities						Estate to the Ownership of Daugavpils University		building 30%				
7	Building	Dormitory, 1211 - Hotels and catering facilities	Sporta Street 8, Daugavpils	05000010201	05000010201001	6065	Property	CM Order No. 367 On the Transfer of State Real Estate to the Ownership of Daugavpils University	717207	Physical depreciation of the building 45%		Dormitory	Planned to retain ownership	621936.27, ERAF
	Land	Land	Sporta Street 8, Daugavpils	05000010201	05000010201	4834			41282					
8	Building	Study building, 1263 - Schools, universities and buildings for scientific research	Vienības Street 13, Daugavpils	05000014101	05000014101001	7858	Property	CM Order No. 367 On the Transfer of State Real Estate to the Ownership of Daugavpils University	2306928	Physical depreciation of the building 49%		Study building	Planned to retain ownership	1154840.7, ERAF
	Land	Land	Vienības Street 13, Daugavpils	05000014101	05000014101	3315			47172					

	Type of real estate object		Location of real estate object				Status of the real estate object	Type of acquisition of the real estate object, person from whom the real estate was acquired	Balance sheet value	Condition and description	Limitations of rights	Current use or purpose of use	Planned future action, use or purpose of use	Investments made, their amount and source
	Type	Name	Address	Cadastral number	Cadastral designation	Area (m^2)								
9	Building	Study building, 1263 - Schools, universities and buildings for scientific research	Parādes Street 1, Daugavpils	05000011101	05000011101001	16027	Property	CM Order No. 367 On the Transfer of State Real Estate to the Ownership of Daugavpils University	5795051	Physical depreciation of the building 23%		Study building	Planned to retain ownership	1571446.5, ERAF
	Land	Land	Parādes Street 1, Daugavpils	05000011101	05000011101	20583			65586					
10	Building	Sports complex, 1265 - Sports buildings	Kandavas Street 1, Daugavpils	05000010702	05000010702001	2484	Property	CM Order No. 367 On the Transfer of State Real Estate to the Ownership of Daugavpils University	1319847	Physical depreciation of the building 21%		Sports complex	Planned to retain ownership	689348.34, ERAF
	Building	Warehouse, 1252 - Warehouses, reservoirs, bunkers and silos	Kandavas Street 1, Daugavpils	05000010702	05000011001002	160.6			4295.95	Physical depreciation of the building 40%		Warehouse		

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	Type	Name	Address	Cadastral number	Cadastral designation	Area (m^2)								
	Land	Land	Kandavas Street 1, Daugavpils	05000010702	05000010702	1206			6862					
11	Building	Sports facility (under construction)	Krimuldas Street 55, Daugavpils	05000291003	05000291003001	545.8	Property	CM Order No. 367 On the Transfer of State Real Estate to the Ownership of Daugavpils University	1206.85	Physical depreciation of the building 10%		Sports facility	Planned to retain ownership	
12	Building	Shed, 1274 - Other, previously unclassified buildings	Krimuldas Street 55, Daugavpils	05000291003	05000291003002	98.7	Property	CM Order No. 367 On the Transfer of State Real Estate to the Ownership of Daugavpils University	244.14	Physical depreciation of the building 20%		Shed	Planned to retain ownership	
13	Building	Dormitory, 1211 - Hotels and catering facilities	Vaļņu Street 29, Daugavpils	05000110902	05000110902001	3402	Property	CM Order No. 367 On the Transfer of State Real Estate to the Ownership of	35061.7	Physical depreciation of the building 45%		Dormitory	Planned to retain ownership	685000, ERAF

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	Type	Name	Address	Cadastral number	Cadastral designation	Area (m^2)								
	Land	Land	Vaļņu Street 29, Daugavpils	05000110902	05000110902	3028		Daugavpils University	12051					
14	Building	Dormitory, 1211 - Hotels and catering facilities	Vaļņu Street 29a, Daugavpils	05000110901	05000110901001	3398	Property	CM Order No. 367 On the Transfer of State Real Estate to the Ownership of Daugavpils University	33140.7	Physical depreciation of the building 30%		Dormitory	Planned to retain ownership	
	Land	Land	Vaļņu Street 29a, Daugavpils	05000110901	05000110901	3083			12289					
15	Building	Study building, 1263 - Schools, universities and buildings intended for scientific research	"Vārpas mācību korpuss" Kalkūnes pag. Daugavpils nov.	46000030291	46000030291001	155.6	Property	CM Order No. 367 On the Transfer of State Real Estate to the Ownership of Daugavpils University	1639.18	Physical depreciation of the building 60%		Study building	Planned to retain ownership	

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	Type	Name	Address	Cadastral number	Cadastral designation	Area (m^2)								
	Building	Shed, 1274 - Other, previously unclassified buildings	"Vārpas mācību korpuss" Kalkūnes pag. Daugavpils nov.	46000302911	44600030291002	22.1			54.06	Physical depreciation of the building 40%		Shed		
	Building	Garage, 1274 - Other, previously unclassified buildings	"Vārpas mācību korpuss" Kalkūnes pag. Daugavpils nov.	46000302911	44600030291003	18.8			219.12	Physical depreciation of the building 35%		Garage		
	Land	Land	"Vārpas mācību korpuss" Kalkūnes pag. Daugavpils nov.	46000302911	4460003029 1	7100			2226					
16	Building	Study base, 1263 - Schools, universities and buildings intended for scientific research	"Ilgas" Skrudalienas pag. Daugavpils nov.	48600700350	44860070035001	897.5	Property	CM Order No. 367 On the Transfer of State Real Estate to the Ownership of Daugavpils University	742152	Physical depreciation of the building 18%		Study and research base	Planned to retain ownership	

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	Type	Name	Address	Cadastral number	Cadastral designation	Area (m^2)								
	Building	Daugavpils University Forest Biodiversity Research Laboratory Building, 1263 - Schools, universities and buildings intended for scientific research	"Ilgas" Skrudalienas pag. Daugavpils nov.	44860070035	44860070035002	689.7			1885938	Physical depreciation of the building 0%				
	Land	Land	"Ilgas"Skrudalienas pag. Daugavpils nov.	44860070035	44860070035	16700			2946					
	Land	Land	"Ilgas"Skrudalienas pag. Daugavpils nov.	44860070035	44860070069	36700			791					
17	Building	Study building, 1263 - Schools, universities and buildings	"Agrobioloģiskā stacija" Kalkūnes pag. Daugavpils nov.	44600030290	44600030290006	213.2	Property	CM Order No. 367 On the Transfer of State Real Estate to the Ownership of	0	Physical depreciation of the building 55%		Study building	Planned to retain ownership	

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	Type	Name	Address	Cadastral number	Cadastral designation	Area (m^2)								
		intended for scientific research						Daugavpils University						
	Building	Laboratory building, 1263 - Schools, universities and buildings intended for scientific research	"Agrobioloģiskā stacija" Kalkūnes pag. Daugavpils nov.	46000030290	44600030290009	51.8			0	Physical depreciation of the building 55%		Laboratory building		
	Building	Laboratory building, 1263 - Schools, universities and buildings intended for scientific research	"Agrobioloģiskā stacija" Kalkūnes pag. Daugavpils nov.	46000030290	44600030290004	74.4			0	Physical depreciation of the building 50%		Laboratory building		
	Building	Laboratory building, 1263 - Schools, universities and buildings intended for	"Agrobioloģiskā stacija" Kalkūnes pag. Daugavpils nov.	46000030290	44600030290007	17.9			0	Physical depreciation of the building 55%		Laboratory building		

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	Type	Name	Address	Cadastral number	Cadastral designation	Area (m^2)								
		scientific research												
	Building	Laboratory building, 1263 - Schools, universities and buildings intended for scientific research	"Agrobioloģiskā stacija" Kalkūnes pag. Daugavpils nov.	46000030290	44600030290005	33.5			0	Physical depreciation of the building 50%		Laboratory building		
	Building	Shed, 1274 - Other, previously unclassified buildings	"Agrobioloģiskā stacija" Kalkūnes pag. Daugavpils nov.	46000030290	44600030290001	142.8			0	Physical depreciation of the building 50%		Shed		
	Building	Shed, 1274 - Other, previously unclassified buildings	"Agrobioloģiskā stacija" Kalkūnes pag. Daugavpils nov.	46000030290	44600030290002	57.5			0	Physical depreciation of the building 50%		Shed		

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	Type	Name	Address	Cadastral number	Cadastral designation	Area (m^2)								
	Building	Shed, 1274 - Other, previously unclassified buildings	"Agrobioloģiskā stacija" Kalkūnes pag. Daugavpils nov.	46000302 90	44600030290010	96.4			17.23	Physical depreciation of the building 30%		Shed		
	Land	Land	"Agrobioloģiskā stacija" Kalkūnes pag. Daugavpils nov.	46000302 90	4460003029 0	86200			4398					
18	Building	Natural Sciences and Engineering Laboratory Building, 1263 - Schools, universities and buildings intended for scientific research	Parādes Street 1A, Daugavpils	05000011 101	0500001000 3001	5826	Property	CM Order No. 367 On the Transfer of State Real Estate to the Ownership of Daugavpils University	1051121 8.43	Physical depreciation of the building 0%		Natural Sciences and Engineering Laboratory Building	Planned to retain ownership	
	Land	Land	Parādes Street 1A, Daugavpils	05000011 101	0500001000 3	11571			57938					

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	Type	Name	Address	Cadastral number	Cadastral designation	Area (m^2)								
19	Building	Scientific laboratory, 1263 - Schools, universities and buildings intended for scientific research	"SAMS", Nagļu pagasts, Rēzeknes novads, LV-4631		78740050277003	211.6	Property	CM Order No. 367 On the Transfer of State Real Estate to the Ownership of Daugavpils University	63630.7	Physical depreciation of the building 0%		Scientific laboratory complex	Planned to retain ownership	
20	Land	Land	Krimuldas Street 55, Daugavpils	05000291003	05000291003	4062	Property	CM Order No. 367 On the Transfer of State Real Estate to the Ownership of Daugavpils University	21957				Planned to retain ownership	
21	Land	Land	Miera Street 3/5, Daugavpils	05000048305	05000048305	2216	Property		10374				Planned to retain ownership	

Contact us

Kristaps Kovaļevskis
Project Manager, Consultation Services
T +371 28 447 273
E kkovalevskis@kpmg.com

Evija Šturca
Partner, Consultation Services
T +371 29 479 747
E esturca@kpmg.com

www.kpmg.com/lv