



UNIVERSITY OF LATVIA



**LATVIJAS
UNIVERSITĀTE**

SCIENTIFIC ACTIVITY DEVELOPMENT PLAN 2030

CONTENTS

<i>About the document</i>	3
Legal and policy framework	3
Objectives of the Plan	3
Place of the Plan in the hierarchy of strategic planning documents	3
REFERENCE POINT - UL 2022	4
DESCRIPTION OF RESEARCH ENVIRONMENT	6
Global trends in science	6
National policy on the development of scientific activity.....	7
VISION 2030 ON THE DEVELOPMENT OF SCIENCE	8
Scientific excellence.....	8
Interdisciplinary, international and national significance research	8
Research capacity building	8
Young talent development.....	8
Research on national language, culture, history and law and preservation of values	8
Knowledge transfer	9
Dissemination and promotion of scientific achievements	9
Social science	9
Priority research areas.....	9
Maintenance of competences important for the Latvian economy	9
Major collections, repositories and research infrastructure units	10
BASIC PRINCIPLES AND PREREQUISITES FOR PLAN IMPLEMENTATION	11
Improvements in research environment.....	11
Internal and external cooperation links	11
Governance	11
Capacity building	12
Funding	13
Prerequisites for the Development Plan implementation	14

ABOUT THE DOCUMENT

Legal and policy framework

- drafted in accordance with Article 15 of the Law on Higher Education Institutions,
- approved by the UL Senate on 26 June 2023,
- based on the Latvian Science, Technology Development and Innovation Guidelines 2021-2027,
- grounded in the UL Strategic Specialisation, the mission set out in the UL Constitution.

In accordance with the UL Constitution, the areas of strategic specialisation of the UL are the following:

- Natural Sciences,
- Humanities and Arts,
- Medical and Health Sciences,
- Social Sciences.

Objectives of the Plan

- to identify priority research areas and formulate priority directions for the long-term development of scientific activity,
- to define the key resources required for the implementation and development of scientific activities, and the most efficient form of their funding and management.

Place of the Plan in the hierarchy of strategic planning documents

Research Development Plan 2030 → Strategy 2021-2027 → Faculty Strategies → Functional level strategies

REFERENCE POINT - UL 2022

UL MISSION STATEMENT

MISSION

The mission of the University of Latvia is expressed in its motto "For Science and the Fatherland".

The University of Latvia contributes to the global scientific, higher education, knowledge, technology transfer and innovation processes, ensures the growth of Latvian democracy and culture, the development of the Latvian language and the flourishing of the Latvian economy.

VISION

Space for excellence, environment for development, time for responsibility.

The UL is a science university with a high international reputation. The UL builds an outstanding interdisciplinary, open and innovation-oriented working and study environment. The UL activities contribute to the sustainable development and economic transformation of Latvia.

VALUES

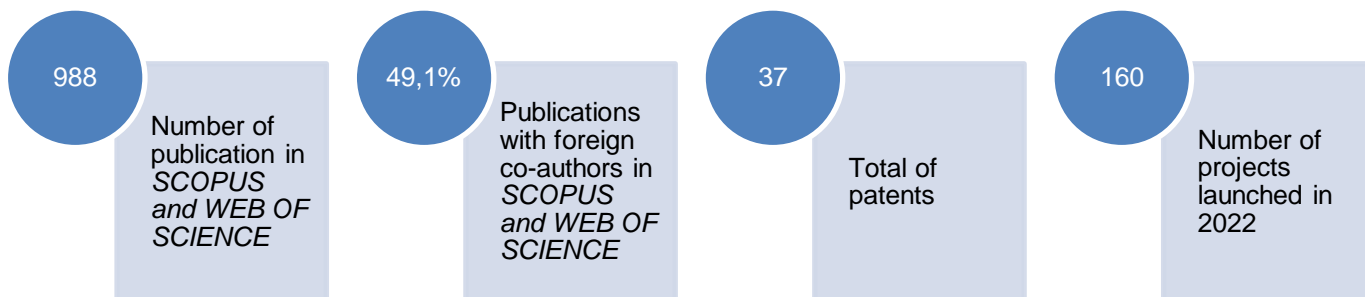
University family, commitment to excellence, science-based development, openness, cooperation, academic freedom.

SCIENTIFIC PERFORMANCE INDICATORS

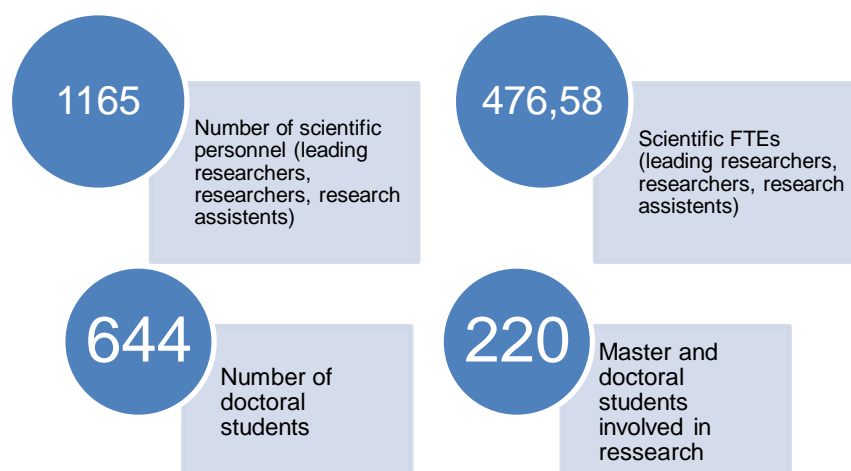
Number of publications and citations in the Scopus database, 2017-2022 (Times Higher Education classification)*

Thematic group	Number of publications	Number of citations	Number of authors	Field-weighted citation impact
Physical Sciences	2281	18581	1260	1,10
Engineering and Technology	1730	11179	1031	0,93
Life Sciences	917	9977	705	1,31
Clinical, Pre-Clinical and Health Sciences	737	20119	572	2,96
Computer Science	704	2791	560	0,99
Social Sciences	477	1833	463	1,15
Arts and Humanities	440	984	345	0,76
Business and Economics	159	1388	138	1,37
Educational Sciences	122	496	122	1,14
Psychology	76	527	58	1,30
Law	25	30	28	0,52
Total at the UL	5054	50366	2437	1,29

*in line with the decision of the Senate



STAFF PERFORMANCE INDICATORS



FINANCIAL INDICATORS



THE UL POSITION INTERNATIONALLY AND NATIONALLY

801st -1000th in Times Higher education World University Rankings
 1001st -1200th in QS World University Rankings
 40th in QS EECA University Rankings

DESCRIPTION OF RESEARCH ENVIRONMENT

Global trends in science

- Although **research funding** is expected to increase from a variety of alternative sources such as companies, crowdfunding initiatives, venture capitalists, philanthropic foundations, etc., universities will remain heavily dependent on public funding. At both national and EU level, there will be pressure on research budgets due to geopolitical factors, the economic recession and the needs of the defence budget. Research funding from companies in different sectors will increase, which will contribute to a growing share of applied research.
- **Changes in institutional governance.** In order to respond dynamically to the wide range of academic, scientific, innovation and other challenges that are on the agenda of higher education institutions today, there is a trend towards major changes in internal governance in favour of larger but more autonomous units. This typically includes the autonomy of larger units both in financial and decision-making terms.
- **Fastest growing fields.** Medical and health sciences will consolidate their dominance, accounting for more than a third of the world's total research volume. Technology will play an equally important role alongside life and natural sciences.
- **Cooperation** (competition and collaboration) both between regions and between research universities and researchers. While there will be fierce competition, at the same time, the development of different research groups and networks, including consortia, will continue. The dominance of North America (high-impact science) and Europe in science is slowly diminishing, with the growing role of East Asia, including China (especially in high-tech areas), India and South-East Asia.
- **Open Science.** Public research funding will increasingly be subject to open science requirements, such as open access to research publications and data with varying degrees of "openness", which will facilitate the discoverability, accessibility, interoperability and re-use of research results. Interdisciplinary collaboration, open peer review processes, disclosure of the impact of research on society - these are just some of the manifestations of open science that will be further developed and refined in the future. Open science infrastructure and its funding will be an issue for research and development managers.
- Producing and publishing research results and communicating research findings in a way that is easy to understand will be a challenge for many researchers, so it will be important for universities to support them in this process.
- **The problem-oriented** approach to **science** and the requirement to communicate the role and importance of science and the societal impact of research, e.g. in relation to the UN Sustainable Development Goals, will require researchers to develop and use different ways of raising public awareness and communicating results to the public, such as progress reports, different forms of knowledge transfer, science communication (modes, channels), citizen science. Different types and

levels of collaboration - with the public (*citizen science*), with business and the public sector, interdisciplinarily and internationally - will be one of the keys to success.

- **Work environment for researchers.** Researchers will need to work "faster and smarter" in an increasingly competitive environment, which will require the use of various technological support solutions to streamline processes ranging from the selection of scientific literature (e.g. the artificial intelligence solution CAVIDOTS) to research design, communication, collaboration, etc. The proportion of older generation researchers will increase. Continuous professional development will enable acquisition of new knowledge and skills, including in other disciplines.
- **Evaluation of science.** While there will be new initiatives to apply alternative indicators to assess the performance of researchers (e.g. Declaration on Research Assessment (DORA)) and new holistic models for assessing the performance of researchers, including by taking into account open science principles, will be introduced, the use of indicators offered by citation databases (number of journal publications, journal IF, citation rate, etc.) in both researcher and institutional evaluations will continue.
- **Big data** will become increasingly **important** in research (also in the humanities); its use is ongoing throughout the research cycle (understanding research processes, data analysis, etc.), so in data-intensive science researchers will need appropriate data processing technologies and skills, including in security issues.
- **AI** will continue to grow in importance throughout the research process; existing tools for data analysis, personalised services, benchmarking, plagiarism detection, hypothesis generation will be enhanced and complemented by new tools that will raise ethical debates and concerns about the reliability of results.

The development of blockchains as a cyberinfrastructure for open science and the increasing popularity of virtual (VR) and augmented reality (AR) for conducting experiments and presenting abstract concepts are also foreseen (albeit cautiously).

Public policies for the development of scientific activity

- The Latvian National Development Plan 2021-2027 defines the action direction "Science for the development of society, growth and security of the economy" with the objective "Scientific excellence for the development of society, growth and security of the economy". The main objectives for achieving this goal are:
 - to attract human resources for research and building their capacity, with emphasis on doctoral students, post-docs and attraction of foreign researchers,
 - to improve the funding model to stimulate performance and innovation,
 - to establish effective coordination and management of research and innovation investments,
 - to undertake strategic planning of research and development (R&D),
 - to strengthen scientific excellence, to develop resource sharing,
 - to foster knowledge transfer.
- The policy objective set in the Science, Technology Development and Innovation Guidelines 2021-2027 is "to foster the development of a smart, technologically advanced and innovative society in Latvia".

VISION 2030 FOR THE DEVELOPMENT OF SCIENTIFIC ACTIVITY

Scientific excellence

- One of the UL priorities in scientific activity is the pursuit of scientific excellence, which is expressed in the production of high-quality publications, participation in international research and strengthening of national science oriented towards the needs of the society in the context of increasing internationalisation, active innovation and knowledge transfer, and high results in the evaluation of science.

Interdisciplinary, international and national significance research

- The main focus of scientific activity in the period ahead will be on participation in international, interdisciplinary and nationally significant research.

Strengthening research capacity

- The UL strengthens its research capacity by developing the UL Academic Centre, by promoting the sharing of research infrastructure both within the UL and in cooperation with other scientific institutions of Latvia, by investing in human resources through providing professional development opportunities for researchers, by developing and continuously maintaining a balanced remuneration system.

Young talent development

- One of the prerequisites for strengthening scientific excellence at the UL is the development of young talent by enhancing the UL doctoral programmes and attracting postdoctoral researchers.
- The priority of the UL a science university is science-based studies promoting the involvement of students at all levels in scientific activities, including engagement in scientific projects together with experienced researchers, as well as involvement of scientific staff and external high-level professionals in the study process for transferring knowledge to students.

Research on the national language, culture, history and law and preservation of values

- As the largest state university in Latvia, the University of Latvia is involved in identifying, researching and preserving existing values of the national language, culture, history and a democratic state governed by the rule of law, in creating and accumulating new values and in conducting related scientific research,

- The UL accomplishes its mission by maintaining the prestige of the field of Latvian studies, respecting their status of national importance and supporting related scientific activities.

Knowledge transfer

- The UL continues to materially and morally promote and support the development of innovative knowledge necessary for society and the economy, considering it as a fundamental task for raising the University's position in the rankings.
- The UL develops and improves the infrastructure necessary for knowledge and technology transfer and strengthens its links with external partners.
- The UL motivates researchers to add quality to the University's intellectual property portfolio.

Dissemination and promotion of scientific achievements

- The effective and wide dissemination of theoretical and practical scientific results is an essential task of the UL as a public scientific institution,
- The UL encourages open access to scientific results and data, publication in open access journals, and active participation in scientific conferences.
- Public education and awareness-raising about scientific achievements is an essential part of scientific activity, which the UL conducts by organising various events for the general public, through the participation of the UL scientists in various events outside the UL and through the UL publishing activities.

Citizen science

- The UL promotes the development of citizen science in Latvia through active participation, education and involvement of researchers in research projects.
- Citizen science is one of the open science fields, which the University of Latvia is developing to gain a good advantage in international collaborative research project competitions.

Priority research directions

- Every six years, the UL Sectoral Science Councils identify the UL priority research directions and a specific support mechanism. Priority directions are defined in order to:
 - identify research areas in which the UL has scientific capacity and expertise,
 - promote cooperation between the UL Institutions, their structural units and scientific staff for carrying out research in the priority research areas.
- In addition to priority research topics, the UL provides the opportunity to submit to public competitions and implement research projects on topics with high future potential (the possibility of becoming a future priority topic).

Maintaining competences of importance for the Latvian economy

- The UL maintains its expertise in topics of importance to the Latvian economy, which is funded through market-oriented research projects.

Major collections, repositories and research infrastructure units

- The UL is developing criteria and a procedure for identifying the most important collections, repositories and research infrastructure units at its disposal which are of major national or international significance for the development of science, the preservation of cultural heritage and/or the study of history. These collections and infrastructure units also serve for the UL priority research directions.
- For the maintenance and continuity of the defined collections, repositories and research infrastructure units, the UL undertakes to provide funding from centralised UL funds where this cannot be provided by externally raised funds,
- The list of significant collections, repositories and research infrastructure units shall be approved by the Sectoral Science Councils and may be revised by adding or removing items in accordance with established criteria in the event of the acquisition and development of new, shared research infrastructures essential for the UL, or in the event that an item on the list is no longer required for the UL scientific activities.

BASIC PRINCIPLES AND PREREQUISITES FOR PLAN IMPLEMENTATION

Improvements in research environment

- The UL continues the development of the Academic Centre as a single environment for studies and research activities, increasing their synergy, as well as promoting cooperation, concentration and sharing of resources.
- The UL ensures a research environment that is welfare-oriented, inclusive and equitable.
- The UL administrative system is designed with a focus on its students and academic staff, with a view to the future UL structure, evaluating the effectiveness of the implementation of “one-stop shops”, i.e. shared service centres, and by introducing modern digital services
- The UL sets high standards of academic and communication ethics and integrity and ensures that they are upheld.

Internal and external cooperation links

- *Internal consolidation* has resulted in the concentration of the UL academic potential into multidisciplinary faculties and associations, thus promoting close and effective internal cooperation between different scientific fields, the achievement of competitive, socially desirable outcomes, the efficient and sustainable use of the resources available at the UL and the involvement of researchers in the study process.
- The UL plays a growing role in the European University Alliance FORTHEM, as well as a leading role in cooperation with international leaders in various fields.
- The UL promotes short- and long-term cooperation with other higher education institution and research institutes in Latvia to address specific challenges (building "ecosystem"), including through the implementation of *External Consolidation* as foreseen in the reform of higher education.
- Sustainable development in all its dimensions is a UL priority and its driving force. The UL is an active partner in Baltic and Northern European cooperation on sustainability. The UL promotes that its cooperation partners also respect the principles of sustainable development.
- The UL contributes to the expansion of its international network by raising the profile of the University and providing students and, as a modern and innovative university, providing its staff with international mobility opportunities.

Governance

Internal consolidation

- The UL is developing an internal consolidation plan to tackle fragmentation and promote greater collaboration, particularly within a single strategic specialisation.
- As a result of the consolidation, the division of functions between the Administration and the newly created Faculties is being reviewed to ensure that administrative processes are less bureaucratic and more expeditious.
- Following global trends, new faculties are provided with a sufficient level of autonomy, both financially and in terms of strategy development, thus promoting sustainable development opportunities, reducing bureaucracy and streamlining governance.

Quality assurance

- Considering the experience of the world's leading scientific institutions, the UL implements an internal quality assurance system to ensure that the quality of its scientific activities meets external requirements (high quality) and that the processes in this area are managed systematically and effectively,
- The UL establishes scientific development planning and annual self-assessment as one of the key elements of the scientific quality assurance system, investing resources in the development of a performance management system.
- With the necessary resources, the UL shall score highly in external scientific assessments,
- The UL ensures that staff involved in the implementation and management of research activities are well informed, motivated and work in effective teams.
- Collegial institutions take more responsibility for strategic decision-making.
- The UL also plays an active role in shaping the national science policy.
- The UL continues to develop its stakeholder representation mechanism, as set out in the Quality Policy, to ensure equal opportunities for participation in and feedback on quality assurance and its development at the UL.
- The UL continues to foster a culture of quality and an internal staff attitude towards quality, a commitment to continuous improvement in the quality of its operations and key processes while meeting new challenges and striving for excellence.

Capacity building

Introducing a new academic career model at the UL, strengthening the link between studies and science

- The UL is developing an internal normative basis for the introduction of a new academic career model at the UL, including the introduction of a tenure system based on the loyalty of academic staff to the UL.
- The UL is compiling a draft list of sectoral groups and fields (Annex 1) in which the UL shall establish university professorships¹ and tenured professorships.²
- The number of academic positions in scientific fields, excluding university professors and tenured professors, is determined by the newly founded Faculties and based on financial possibilities, areas of strategic specialisation, established clusters of study programmes and the number of state-subsidised study places in them, and the existing areas of scientific activity at the UL,
- New academic staff positions are created taking account of financial resources and aiming to develop new research directions or new clusters of study programmes.

¹ **University professor** - a full-time (although there may be exceptions) professor employed by the University of Latvia and responsible for the study and research activities in a particular field (subfield of science) at the university level. A university professor has an employment contract for academic work that does not distinguish between study, research and administrative work. Both existing professors and leading researchers at research institutes may apply for the post of university professor. A university professor may be involved in scientific projects and remunerated accordingly.

² **Tenured professor** - a professor at the UL in an area of strategic importance for the development of the UL, selected through an international competition (not excluding existing university professors) and complying with higher requirements, e.g. in terms of funding, publications, Hirsch index. Tenured professors are higher paid than university professors. Additional funding for a tenured professor can only come from international projects or commercialisation. The introduction of tenured professorships at the UL is funded externally.

- The new academic career model includes not only full-time positions (study- or research-oriented), but also practice-oriented positions that allow for combining jobs within and outside the UL.

Introduction of the Joint Doctoral School

- The UL is creating a joint doctoral school, which aims to create the conditions for internationally recognised academic excellence and the development of future leaders of society.
- The Doctoral School is academically managed by its supervisory board, which is made up of representatives from the doctoral study programmes represented, as well as an international research council.
- The Doctoral School ensures the distribution of doctoral grants in the sectors in line with national development and university strategy objectives, quality monitoring, coordination of theoretical courses for doctoral programmes, academic career support.

Introducing a postdoctoral system at the UL

- Subsequent to changes in the relevant external legislation which determine the principles of postdoctoral activities in Latvia, the UL is developing an internal framework for the development of postdoctoral activities at the UL.
- The UL is establishing a postdoctoral system not only to attract graduates of the UL doctoral programmes, but also to attract foreign postdocs (young scientists) to promote the UL internationalisation.

Funding

Doctoral and post-doctoral studies

- The UL is developing new funding principles for doctoral studies, including defining funding mechanisms for different activities.
- The Joint Doctoral School oversees the use of funding for doctoral and post-doctoral activities in the Faculties and partner institutions, and ensures the implementation of joint activities.

Support for the University professorship

- The UL is developing common funding principles for full-time academic staff, which the newly formed Faculties is to follow in determining the number of staff positions and different levels.
- For tenured positions in an area of activity that have not yet been developed at the UL, additional start-up funding is envisaged.

Operation of major collections, repositories and infrastructure units

- In accordance with the Inventory of Major Collections, Repositories and Research Infrastructure Units approved by the UL Senate, the UL develops a funding model from the financial resources available to the UL.
- The funding model is designed to cover maintenance costs, including the provision of necessary scientific or scientific support staff.

Evaluation of scientific achievements of UL staff

- The UL is developing a new system for evaluating and funding the scientific achievements of its staff, based on scientific publications, monographs, knowledge transfer, participation in scientific conferences and projects.

Support for new research initiatives

- The UL develops procedures for the central funding of new research initiatives that are identified as being of particular support or priority at the UL or national level, but for which external funding is not available at the time.

Publishing of scientific journals

- The UL provides centralised co-financing for the scientific journals published by the University of Latvia and which are included or have the potential to be included in the *Web of Science* and/or *Scopus* indexed journals in the foreseeable future.
- A special category to be supported is journals related to the study of the values of the national language, culture and history.

Prerequisites for the Development Plan implementation

1. Consistent implementation of the tasks set out in the UL Development Strategy integrating priorities of the Scientific Activity Development Plan
2. A steady increase in public funding for science, including financial reference amount for science and funding for research projects.
3. Removing barriers related to institutional fragmentation to enhance cooperation in studies and lifelong learning.
4. Appropriate changes to Latvian laws and regulations.

Initial list of groups of scientific disciplines and branches of science that establish university professorships

Groups of scientific disciplines and branches of science

1. *Natural Sciences, including,*

- 1.1. Biology
- 1.2. Computer Science and Informatics
- 1.3. Physics, Astronomy and Material Science
- 1.4. Chemistry
- 1.5. Mathematics, Statistics and Data Analysis
- 1.6. Earth Sciences, Physical Geography and Environmental Sciences

2. *Humanities and Arts*

- 2.1. Philosophy, Ethics and Religion
- 2.2. Linguistics, Literary and Folklore Studies
- 2.3. History and Archaeology

3. *Medical and Health Sciences*

- 3.1. *Basic Medical Sciences*
- 3.2. *Clinical Medicine*
- 3.3. *Health and Sports Science*

4. *Social sciences*

- 4.1. Economics and Business
- 4.2. Education Sciences
- 4.3. Media and Communication
- 4.4. Political Science
- 4.5. Psychology
- 4.6. Social and Economic Geography
- 4.7. Social Work
- 4.8. Sociology and Anthropology
- 4.9. Law