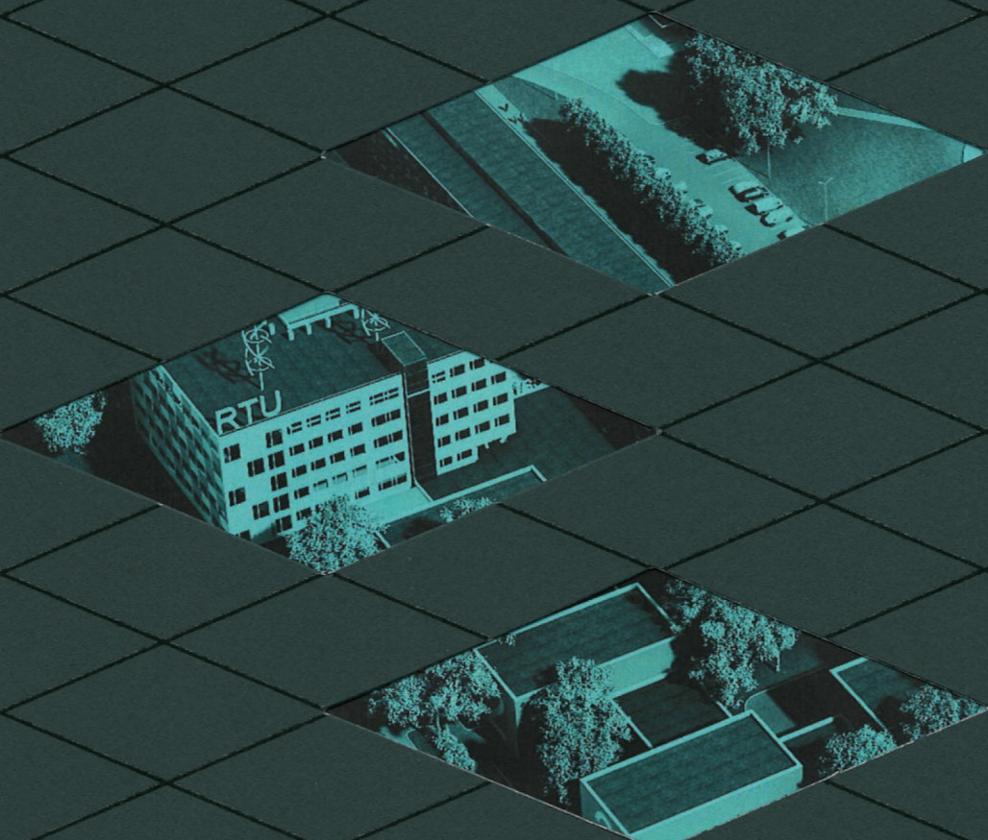




RIGA TECHNICAL
UNIVERSITY

YEARBOOK
2018

RIGA TECHNICAL UNIVERSITY





RIGA TECHNICAL
UNIVERSITY

YEARBOOK 2018

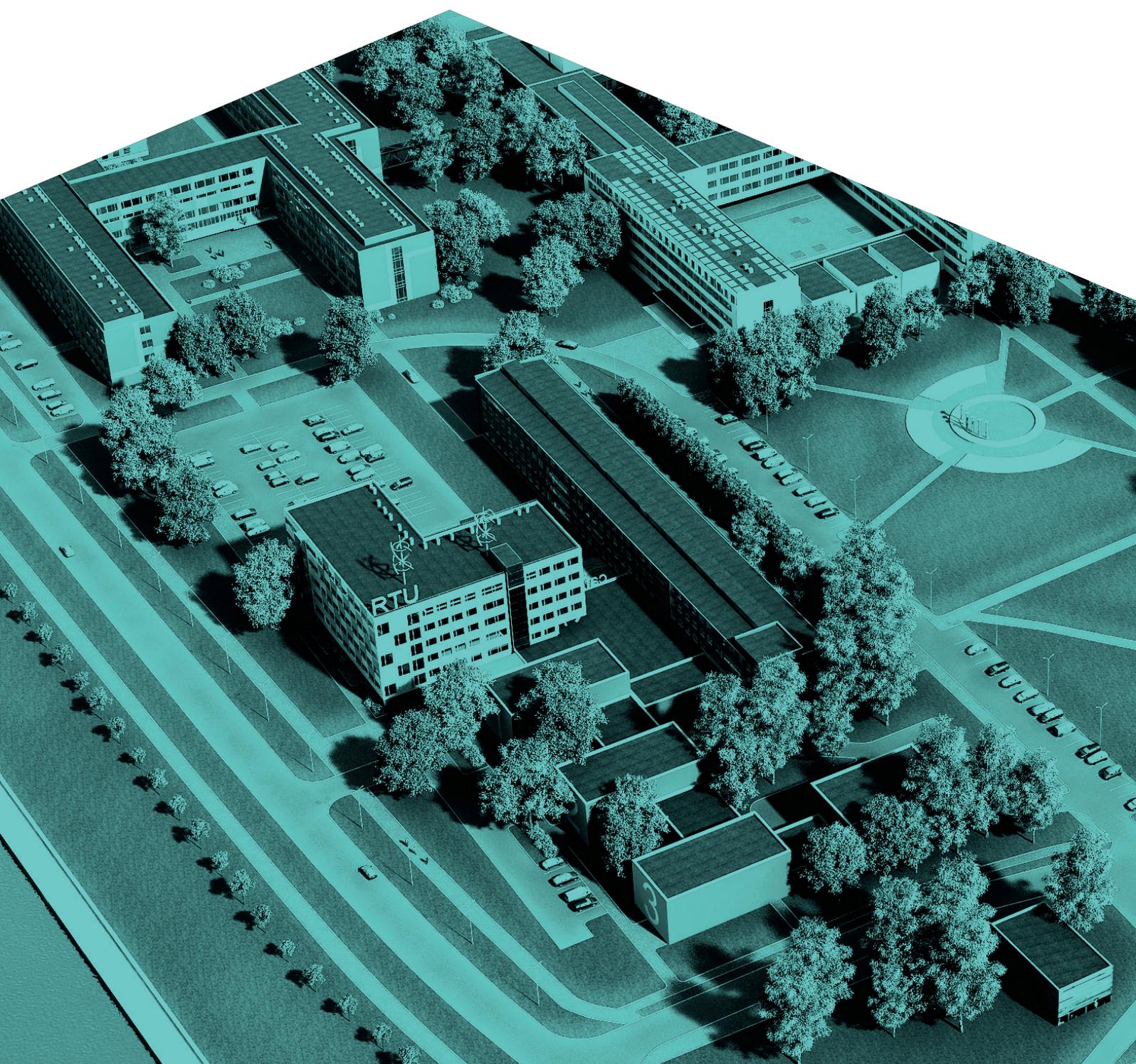


Table of Contents

01	About RTU	4	10	Excellence in Research	38
02	Strategy	6	a.	Research Platforms	39
03	Structure	10	b.	Financing of Science	41
04	Personnel	12	c.	Scientific Projects	42
a.	Total number of employees	13	d.	Events	42
b.	Number of academic personnel	13	e.	Publications	45
05	Students Self-Governments and Parliament	14	f.	Doctoral School	45
a.	RTU SP Projects	15	g.	Cooperation	47
b.	RTU SP Members	15	11	Sustainable Valorization	48
c.	RTU SP Activities in 2018	16	a.	Innovation and Technology Transfer Centre	49
06	Decision-Making Bodies	18	b.	Department of Business Development and Investments	51
a.	Constitutional Assembly	19	c.	RTU Design Factory	52
b.	Senate	19	12	Finances	54
07	Administration	20	13	Development of RTU Campus in Kipsala	56
a.	Rector	21	14	International Cooperation	60
b.	Vice-Rectors	22	a.	Erasmus+	61
c.	Administrative Director	23	b.	International Events	62
d.	Deans of RTU Faculties	23	c.	International Summer Schools	62
08	Advisors	24	d.	International Cooperation	63
a.	RTU Advisory Board	25	e.	Associations	63
b.	Faculty Advisory Boards	27	15	Achievements	64
09	High-Quality Education	30	a.	Ratings	65
a.	Study Fields	31	b.	Achievements	67
b.	Total Number of Students	31	c.	Awards	70
c.	Number of Students at the Faculties	32	16	Culture	74
d.	Number of Foreign Students	33	17	Sport	76
e.	Number of Foreign Students at the Faculties	33			
f.	Studies	34			
g.	Scholarships	36			
h.	Engineering High School (EHS)	37			



RTU Rector, Academician
LEONĪDS RIBICKIS

Riga Technical University (RTU) has traditionally summarized its accomplishments in the Yearbook that allows providing a comprehensive retrospect of what was accomplished in 2018. This year was special for our country, as we celebrated the centennial anniversary of Latvia, and such significant events usually both make one assess the progress achieved and provide inspiration for future plans.

The development of new technologies makes the world change rapidly, and higher education and science have to adjust to this rate. If earlier we were jointly making RTU the third generation university, pursuing three strategically important objectives – studies, science and valorization or creation of new products and cooperation with the industry, now we are heading towards the fourth generation university, where smart digitalization or application of modern technologies for increasing the efficiency of the university activities is one of the significant preconditions for further development.

In 2018, we could be proud of our scientists, who received RTU, Latvian Academy of Sciences, state, international and industry awards. We could be proud of the achievements of our students. These achievements have had an impact on the assessments RTU received within international rankings, for instance, in the QS Stars university rating, where RTU has received an excellent assessment – five stars, or the Times Higher Education World University Rankings, where RTU has been placed among 300 best universities regarding cooperation with the industry.

We are distinguished not only in the area of engineering education, but also in business and management education, as in 2018 the Faculty of Engineering Economics and Management and Riga Business School of RTU retained their positions in the international Eduniversal Business Schools Ranking in the 4 palms league.

For RTU, cooperation with the industry is important and we develop our study programmes considering the recommendations from industry associations. Thus, RTU rightly gets the title of the university most recommended by employers already for the seventh year in succession.

2018 was significant also for the Engineering High School (EHS) established by RTU – the first 24 pupils, who entered EHS in 2015, finished the school. Most of them have already started studying at RTU, whereas the school has confirmed its excellence by heading the Atis Kronvalds Fund small school rating for the third year in succession. I am sure that this contribution to the future will bring its effect and RTU will raise new leaders for Latvia.

01

About RTU



RTU is a modern, internationally recognized and prestigious educational establishment, being the only multi-sectoral technical university in Latvia.

RTU is purposefully evolving to become the fourth generation university that provides not only high quality education, but also excellent research and sustainable valorization, as well as smart digitalization.

RTU has nine faculties, where it is possible to obtain comprehensive education in the cutting-edge technologies and engineering, as well as social sciences and humanities. The study programs implemented at RTU have passed international expert examination and are officially accredited, thus confirming high quality of education provided by RTU. This has also been acknowledged by the Latvian employers, who recommend RTU as a priority higher education institution in Latvia.

RTU is purposefully improving its infrastructure building the first student campus in Latvia at Ķīpsala. Upon completion of the construction, it will become the most modern engineering study center in the Baltic States. RTU faculties, a modern laboratory building, Scientific Library and administrative premises will be concentrated there.

President of Latvia Raimonds Vējonis visited RTU student campus at Ķīpsala

To discuss the role, development and challenges of engineering education, the President of Latvia visited RTU student campus at Ķīpsala on April 12 2018, where he met RTU Rector, Academician Leonīds Ribickis, and other representatives of the university administration and Students' Parliament.

During his visit, R. Vējonis got familiar with the study and research environment, attended the faculties and laboratories of RTU, and, on completion of his visit, acknowledged that engineering sciences, similar to the natural sciences, form the foundation of the national economy, and that only smart and knowledgeable people can create increasingly more products with high added value.

"We have to be aware of the fact that in the long term the growth of the Latvian national economy will not be possible without engineering sciences. Science and research play a major role in achieving the goals of our state by creating economy with an added value and increasing the competitiveness of the Latvian entrepreneurs. Our universities must continue investing in development and modernization in order to create foundation for formation of the knowledge society," said R. Vējonis.



02

Strategy

The main target of the RTU Strategy is to ensure implementation of the leitmotiv referred to in the National Development Plan for 2014–2020 – to achieve the «economic breakthrough» in Latvia.

RTU positions itself as a cornerstone of the development of Latvia, which ensures education of specialists necessary for the Latvian national economy and development of new products and services, serving as a basis for sustainable growth of Latvia. RTU Strategy lays out the core targets of RTU development until 2020 and defines the activities and distribution of responsibilities for the implementation of the tasks.



Mission ▼

To ensure internationally competitive high quality scientific research, tertiary education, technology transfer and innovation for Latvian national economy and the society.

Vision ▼

RTU – a modern and prestigious higher education establishment, internationally recognized as the leading university of science and innovation in the Baltic States – a cornerstone of the development of Latvia.

Values ▼

RTU values are quality, academic freedom, sustainable development, honesty, cooperation and stability.

Excellence Approach

Excellence Approach was adopted by RTU Senate in 2017 to promote the development of RTU. It incorporates RTU Constitution, Strategy and Quality Policy. It is based on the ESG (Standards and Guidelines for Quality Assurance in the European Higher Education Area) developed by the European Association for Quality Assurance in Higher Education and fundamental principles of EFQM (The European Foundation for Quality Management) Excellence Model.

Introducing its approach to pursuing excellence, RTU defined the stages of the process leading to excellence. The stages of RTU Excellence Approach reflect organizational culture of RTU and

serve as a common language that ensures common understanding of the University quality issues, which, in its turn, promotes sustainable development and achievement of the university goals.

Pursuing sustainable development and excellence, special attention is devoted to management and leadership, strategic planning, process approach, product and service development, improvement of cash flow and financial performance indicators, efficiency improvement in all activity areas, promotion of the level of satisfaction of the students, cooperation partners and employees, and increased market coverage.

Horizontal Priorities

Horizontal priorities set the following five tasks included into the RTU core activities (studies, research, innovation and digitalization) to be introduced and implemented in the entire operation of the university:



Tasks of Horizontal Priorities:

Internationalization

Internationally competitive operation of the university in science, innovation and studies

Interdisciplinarity

Cooperation between different industries and specialization as a basis for creation of new and innovative products and modern curriculum

Organizational efficiency

Efficient and high-quality administration of the university that ensures development and implementation of modern study and research processes

Financial efficiency

Financial independence and a motivating internal financial system of the university that promotes university development

Infrastructural efficiency

Up-to-date environment for studies, research and innovation with modern buildings and technical equipment suitable for the university operation

Smart digitization

The use of modern technologies to increase the efficiency of the university

Sustainability

Sustainable development is a basic precondition for RTU activities. Being aware of its significance on the national scale, RTU undertakes responsibility for its impact on the society, environment and the national economy and, in order to be capable of evaluating this impact; five most important factors must be taken into account. Recognizing these factors, RTU aims at long-term planning, sustainability, and efficient development.

Strategic Planning

The RTU Strategy for 2014 – 2020 lays down the key guidelines for RTU development, determines the activities to be performed and allocates responsibility for performance of the tasks. The strategy sets out a specific objective, the result to be achieved and the responsible organizational unit that ensures efficient fulfillment of the objectives for every task related to studies, research and valorization.

Green Kipsala

Reducing human impacts on the environment and climate change, RTU has undertaken introducing the Green Kipsala concept at RTU student campus by 2023. It is intended to be implemented through sustainable resource management, raising awareness of RTU employees and students about environmental issues and facilitating the creation and usage of environmentally friendly technologies.

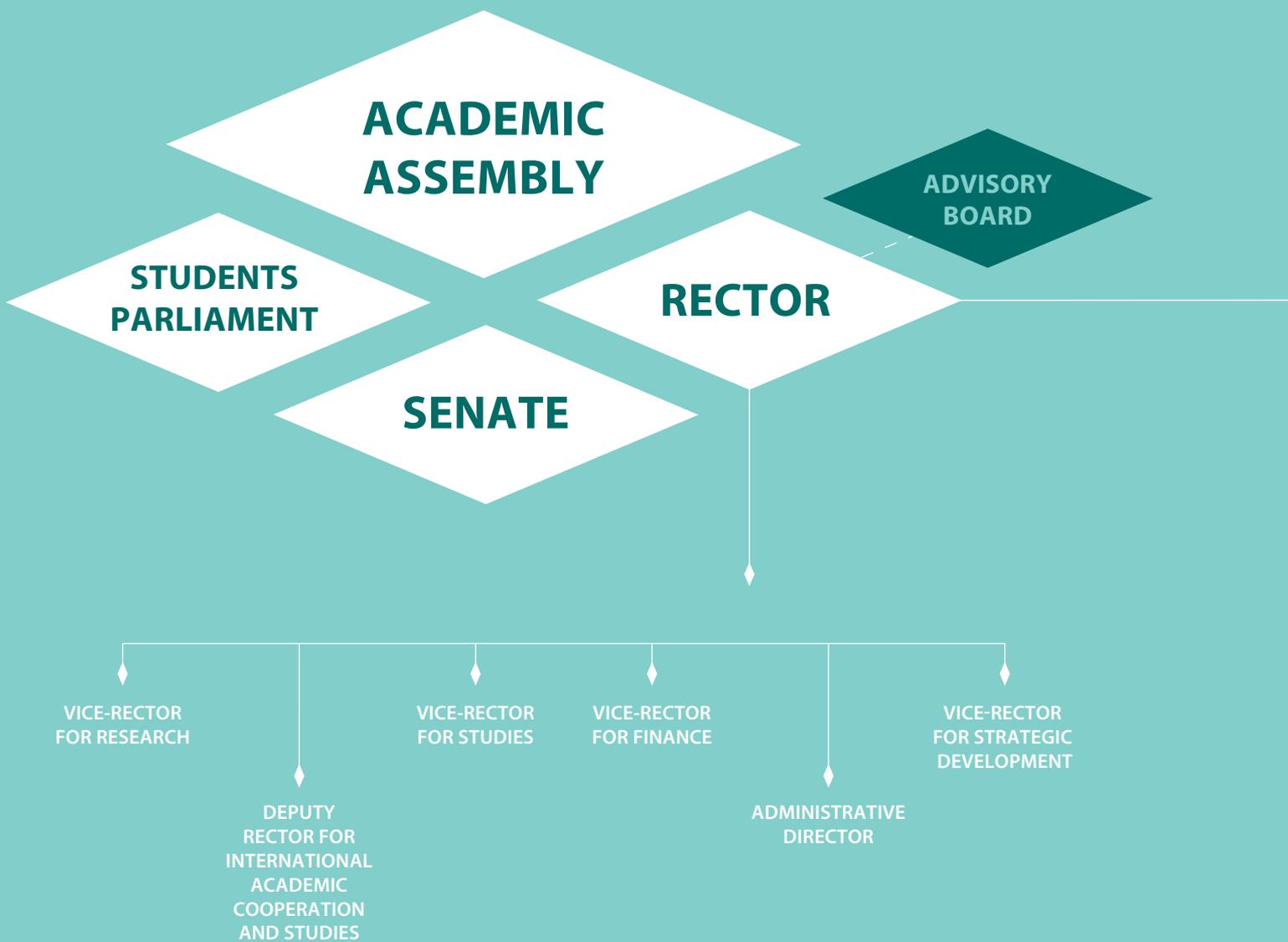
RTU has identified three main platforms – consumption of energy resources, waste management and transport, where improvements can be introduced in order to achieve the most efficient results by reducing the ecological footprint of RTU. It can be done by improving the infrastructure, changing the habits of students and employees and using innovative green products and technologies created by RTU researchers using the Kipsala student campus infrastructure.

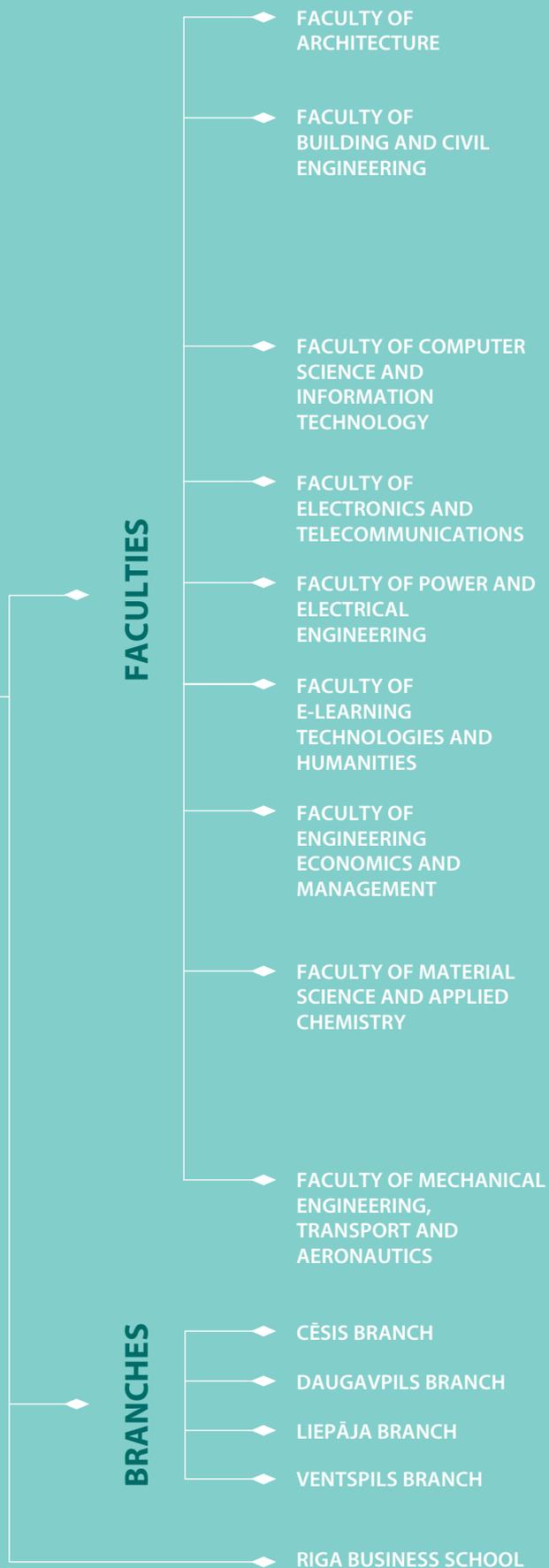
Innovations created by RTU researchers play an important role in the development of Green Kipsala concept. Innovations will be tested in Kipsala, promoting sustainable management of the campus.



03

Structure





04

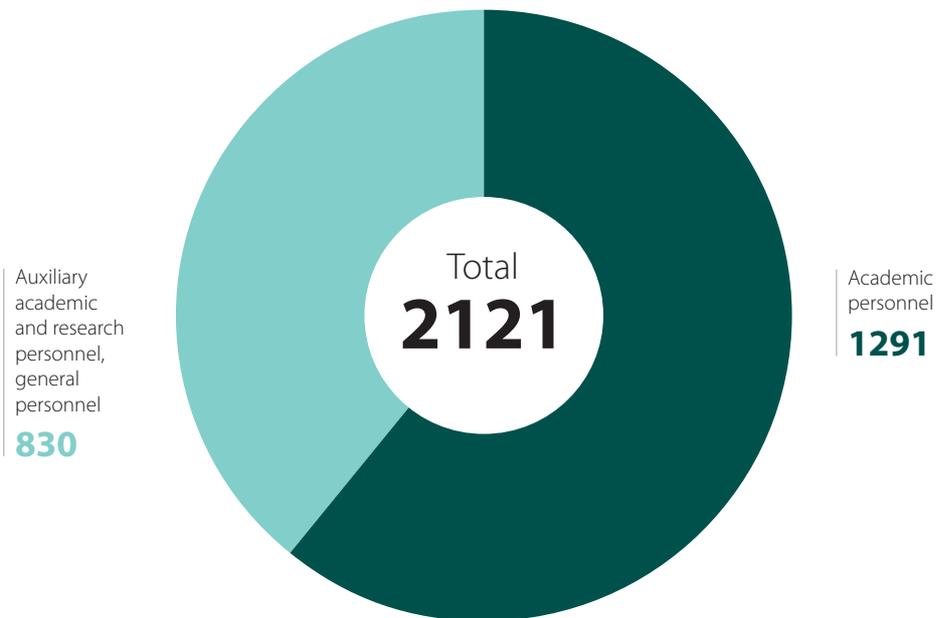
Personnel

Being aware of the crucial importance of human resources of RTU, the university creates an inspiring environment for its employees and students. Flexible working practices and growth opportunities are provided for all stakeholders. The excellence system based on the EFQM model is incorporated within the RTU management model.



a. Total number of employees

As of 01 March, 2019



b. Number of academic personnel

As of 01 March, 2019



05

Student councils and Parliament

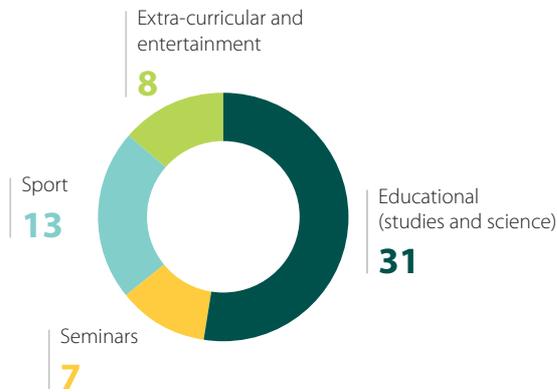


RTU Student Parliament (RTU SP) – a student organization with rich traditions – in 2018 celebrated its 26th anniversary. The core of RTU SP is formed by RTU students who are interested in making their studies and extra-curricular life more qualitative and diverse, not only for themselves, but for all students of RTU.

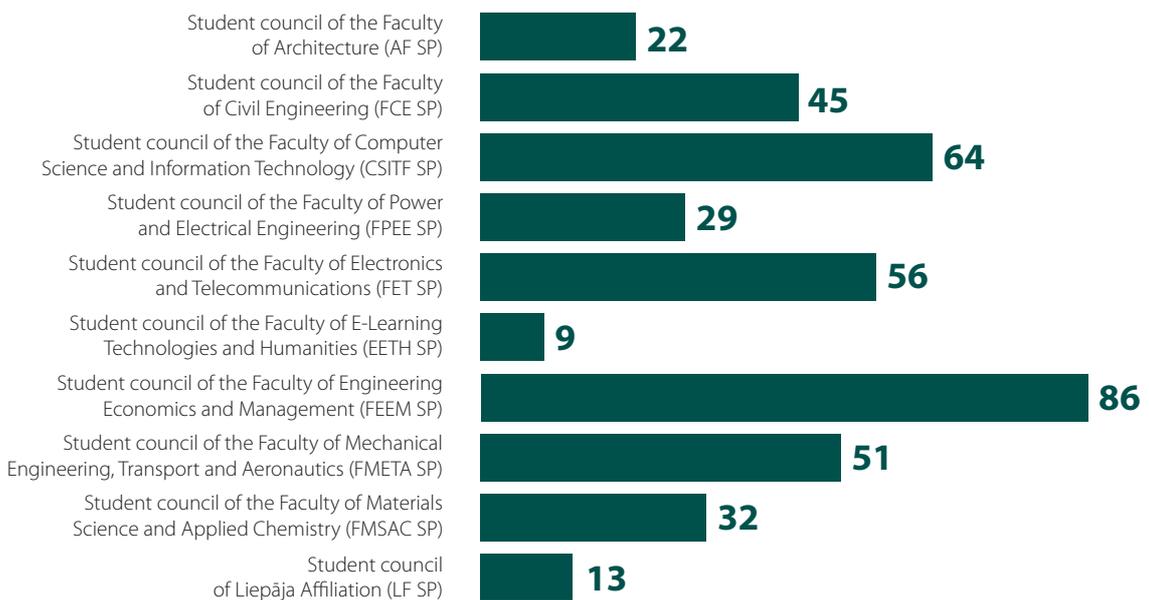
RTU SP President in 2018 – a student of the Faculty of Mechanical Engineering, Transport and Aeronautics Kristens Raščevskis

Strong, persuasive and slightly playful, exactly like the bear depicted on the RTU SP logo – that is what RTU SP was like in 2018.

a. RTU SP Projects



b. RTU SP Members



c. RTU SP Activities in 2018

- RTU SP members were actively involved in the work of the Student Union of Latvia (LSA), promoting the introduction of ECTS (*European Credit Transfer and Accumulation System*) in the Latvian higher education system and raising the issue of increasing state scholarships;
- In summer, RTU SP Strategy was updated, which set out the objectives for the period up to the autumn of 2020;
- Within the framework of the Technical Creativity Days, RTU SP members and activists visited different Latvian schools five times, in order to familiarize pupils from grades 1–12 with engineering sciences and studies at RTU;
- In cooperation with the Department of Public Affairs, videos were made for the 2018 RTU Open Door Days and the summer admission promotional campaigns;
- With the support of RTU SP, the Scientific Library terrace was improved;
- Keeping up with the times and current trends, several new projects were implemented, for example, Baltic Mechanical Engineering Student Competition "Zobrats", RTU SP Representation Seminar "Balss", PR impact seminar, "Sētas ielas svētki" (Rear Street Festival), where students were provided an opportunity to refine their study topics, knowledge and skills, as well as to improve the competencies required for student representation activities;
- RTU SP continued supporting student initiatives by offering support to implementing student ideas to the total amount of EUR 16,400;
- The events organized by RTU SP in 2018 reported a record number of visitors. Thus, 5,200 participants took part in FCE SP Paper Bridge Construction competition, 171 visitors – in FEEM SP EKV Giga Week, RTU Freshman Ball welcomed 2,300 visitors and RTU student sport games in Ronīši had 330 visitors.





06

Decision-Making Bodies



a. Constitutional Assembly

Constitutional Assembly is an authorized highest collegiate representative and administrative decision-making body of RTU.

On October 23 2014, the Parliament of Latvia (Saeima) approved the law "On the Constitution of Riga Technical University", which took effect on November 5 2014. On December 8 2014, RTU Academic Assembly approved the RTU Constitutional Assembly Regulations. On May 11 2015, RTU Academic Assembly

was renamed as Constitutional Assembly. 200 members of the Constitutional Assembly are elected by an open ballot by the students, academic and general personnel for the term of three years. Constitutional Assembly comprises 50 members of RTU Senate, the remaining

150 members of the Assembly are elected proportionally by university administration, faculties, institutes, which are not part of some faculty, branches and student council. Representation wise, the proportion of the academic personnel is minimum 60% and the proportion of students is 20%.

b. Senate



CHAIRPERSON
OF THE SENATE
PROFESSOR *Dr. oec.*

**Elina
Gaile-Sarkane**

The Senate of RTU is a statutory collegial administrative and decision-making body that approves the internal code of conduct and regulations governing all spheres of RTU activity. Since December 2014, RTU Senate consists of 50 members.

Meetings of the Senate are arranged in such a way that any senator of RTU could be more involved in discussions to actively represent the opinion delegated by their organizational units. Beyond the Senate meetings, the senators actively participate in the work of the Senate commissions. The Senate commissions are established in the areas that are significant for the university operation and are intended for considering and providing statements on proposals submitted for consideration at the Senate meetings and conformity of the documents to be approved to the RTU strategic goals.

Since 2016, the Senate meetings are held in the new building of RTU Scientific Library or Student House. Its modern-fitted meeting hall ensures excellent working conditions and is equipped with multimedia equipment that facilitates the work of senators.

In total, during ten regular (planned) working meetings of

the Senate, every year on average 160 to 200 draft projects are considered. A competition is announced annually for minimum 30 positions of professors and associate professors, the titles of RTU Honorary Employees are granted, 30–40 regulations of different kind are approved, 25–30 amendments to different regulations are introduced and a lot of significant decisions are drawn up.

In 2016, the title of RTU Honorary Member was granted to RTU graduate and a long-term cooperation partner Vilnis Rantiņš, whereas the title of RTU Professor Emeritus was granted to Juris Briņķis.

To ensure successful information exchange and raise awareness of all RTU employees about the current events at the university, valid regulatory enactments are available to any RTU employee and student in the RTU Documents section of the internal platform *Ortus*.

07

Administration



a. Rector



RTU RECTOR
ACADEMICIAN
Dr. habil. sc. ing.

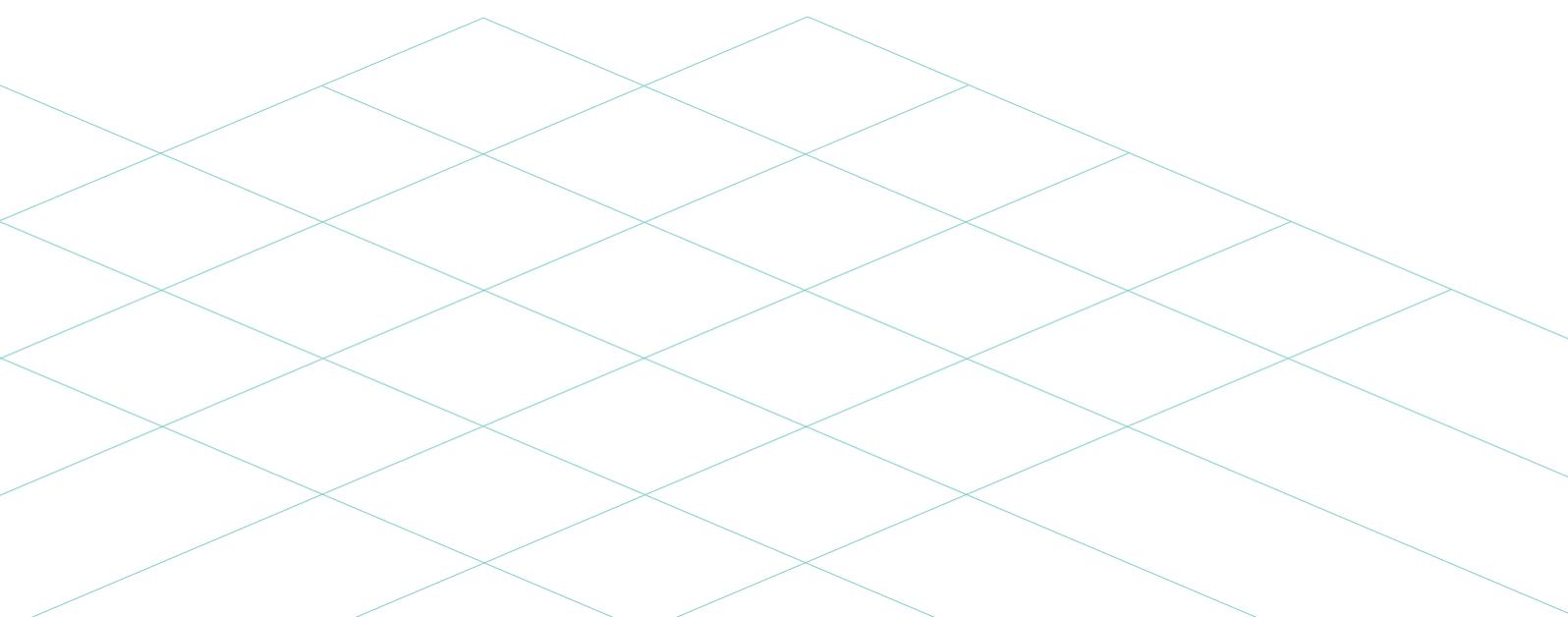
Leonīds Ribickis

Rector is the highest official of RTU who implements general administrative management and represents RTU without special authorization.

At the end of 2015, Leonīds Ribickis was repeatedly elected RTU Rector.

"Our strategic goals, which are high-quality higher education, excellence in research, valorization and digitalization, can be achieved not by the Rector alone, but by all of us together. We have a lot of talented youth, and it is worth working for their sake," said L. Ribickis.

RTU Rector election regulation stipulates that only a professor of RTU, whose total length of service in the RTU professor position is not less than five years, can be elected the university Rector. RTU Rector is elected at a meeting of the Constitutional Assembly for five years, but for not longer than two terms in succession. The Rector is considered to be elected, when at least two thirds of the Constitutional Assembly members participate in the voting and the candidate gets more than a half of the casted votes of the Constitutional Assembly.



b. Vice-Rectors



VICE-RECTOR
FOR RESEARCH
ACADEMICIAN
Dr. sc. ing.

Tālis Juhna

RTU Office of Vice-Rector for Research administers, promotes and implements research activity at RTU, as well as manages procedures for obtaining scientific Doctoral degree by RTU researchers at the accredited study programs approved by RTU Senate.



VICE-RECTOR
FOR ACADEMIC
AFFAIRS
PROFESSOR
Dr. sc. ing.

Uldis Sukovskis

RTU Office of Vice-Rector for Academic Affairs coordinates implementation of the study programs and supervises the study process.



VICE-RECTOR
FOR FINANCE
PROFESSOR *Dr. oec.*

Ingars Eriņš

The aim of the Office of Vice-Rector for Finance is to administer financial management processes, as well as accounting, allocation and planning of resources and funds at RTU to ensure implementation of university activities and implementation of its development strategy.



VICE-RECTOR
FOR STRATEGIC
DEVELOPMENT
DOCENT, *Dr. oec.*, MBA

Artūrs Zeps

The Office of Vice-Rector for Strategic Development aims at drawing up RTU development strategy and ensuring its successful implementation, monitoring significant development projects of RTU, as well as representing RTU interests cooperating with public authorities, partners and the public.

c. Administrative Director



PROFESSOR

Jans Šlihte

Administrative Department ensures implementation of the administrative processes and procedures that correspond to RTU strategic goals, develops and implements policy for personnel management, administrative work, quality management, information and communication technology system security;

supervises development and implementation of strategies in the areas of information technology, document management, library, sports and cultural activities; controls implementation of decisions of RTU Senate, Deans' Council and the Rector's Council, as well as the orders of RTU Rector.

d. Deans of RTU Faculties

Professor Uģis Bratuškins

DEAN OF THE FACULTY OF ARCHITECTURE

Professor Juris Smirnovs

DEAN OF THE FACULTY OF CIVIL ENGINEERING

Professor Agris Ņikitenko

DEAN OF THE FACULTY OF COMPUTER SCIENCE AND INFORMATION TECHNOLOGY

Professor Oskars Krievs

DEAN OF THE FACULTY OF POWER AND ELECTRICAL ENGINEERING

Professor Jurgis Poriņš

DEAN OF THE FACULTY OF ELECTRONICS AND TELECOMMUNICATIONS

Professor Marina Platonova

DEAN OF THE FACULTY OF E-LEARNING TECHNOLOGIES AND HUMANITIES

Professor Elina Gaile-Sarkane

DEAN OF THE FACULTY OF ENGINEERING ECONOMICS AND MANAGEMENT

Professor Ēriks Geriņš

DEAN OF THE FACULTY OF MECHANICAL ENGINEERING, TRANSPORT AND AERONAUTICS

Professor Māris Turks

DEAN OF THE FACULTY OF MATERIALS SCIENCE AND APPLIED CHEMISTRY

08

Advisors



a. RTU Advisory Board



CHAIRPERSON
OF THE ADVISORY
BOARD

Āris Žigurs,

Chairperson
of the Board
of JSC Latvenergo



DEPUTY CHAIRPERSON
OF THE ADVISORY
BOARD

Juris Gulbis,

Chairperson
of the Board of Ltd Tet

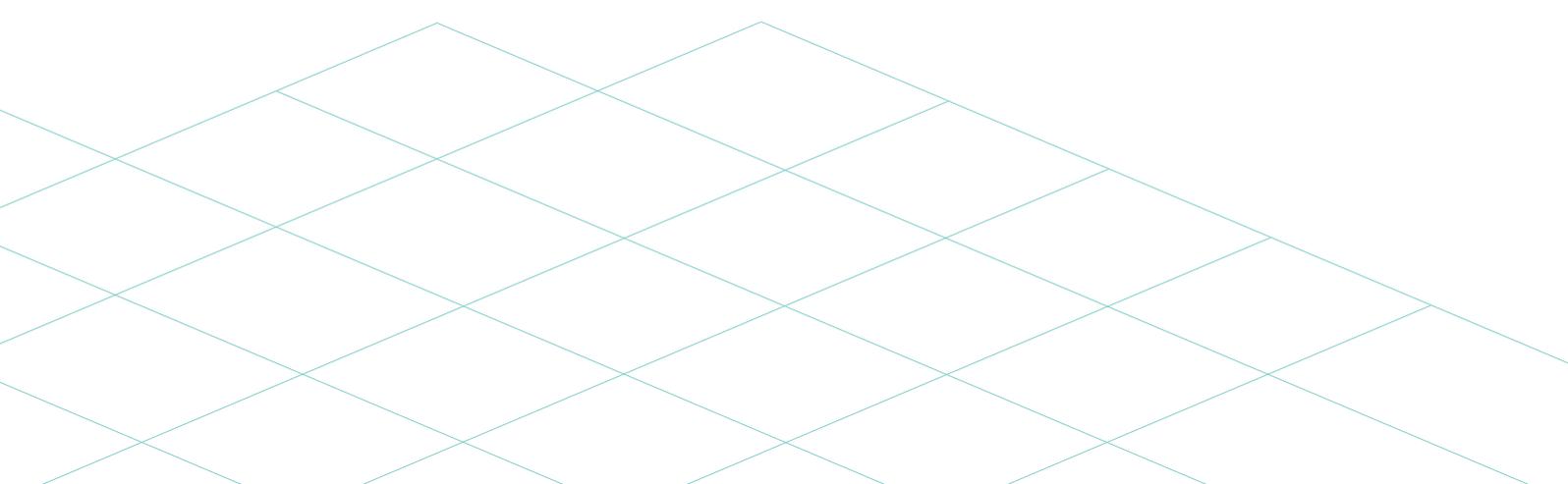
RTU Advisory Board has been established to promote RTU growth, determining the course of its strategic development in accordance with the needs of the national economy.

The Advisory Board consults the Senate and Rector on the issues concerning RTU development strategy and supports the formation of material and financial resources of the university.

The Senate, Rector, or faculty councils can propose a specialist in the field of research, education, culture or national economy whose primary employment is not RTU and whose professionalism and work experience can assist in promoting the university development.

When the candidate agrees to become a member of the Board, he/she is elected openly by RTU Senate for the period of three years by a simple majority vote.

The Advisory Board evaluates the operation of RTU minimum once a year and provides recommendations and proposals for the university development in general.



Members of the Advisory Board

Normunds Bergs	Chairman of the Board of Latvian Electrical Engineering and Electronics Industry Association (LETERA); Chairman of the Board of JSC SAF Tehnika
Juris Binde	President of Ltd Latvijas Mobilais Telefons
Ivars Puksts	
Maksims Jegorovs	Head of Latvian Branch of Accenture
Andris Vanags	Chairman of the Council of Ltd Sakret
Raina Dūrēja-Dombrovska	Executive Director of Association of the Latvian Chemical and Pharmaceutical Industry (LAKIFA)
Leonīds Jākobsons	Executive Director of the Association of Manufacturers of Building Materials
Māris Gorodcovs	Director of SA Civilā Aviācijas Aģentūra
Juris Savickis	CEO of Ltd ITERA Latvija
Vitālijs Gavrilovs	Head of the Employers' Confederation of Latvia
Vilnis Rantiņš	Chairman of the Board of Association of Mechanical Engineering and Metalworking Industries of Latvia
Ieva Jaunzeme	Director General of the State Revenue Service
Aigars Zariņš	Chairman of the Board of Ltd Balsts
Andris Lauciņš	Partner, audit and professional services company EY (Ernst & Young Baltic)
Visvaldis Sarma	CEO of Ltd Sarma & Norde
Mārtiņš Straume	Chairman of the Board of the Latvian Association of Construction Engineers (LACE)
Normunds Talcis	Chairman of the Board of JSC Rīgas Siltums
Viktors Puriņš	Ex-president of the Latvian Builders Associations
Aigars Kalvītis	Chairman of the Board of JSC Latvijas Gāze
Andris Lubiņš	CEO of Ltd Grandeg
Atis Sausnītis	Chairman of the Board of Ltd Baltijas Lāse
Andrejs Vasiljevs	Chairman of the Board of Ltd TILDE
Andris Bērziņš	Leading Partner of Ltd Change Venture
Andrejs Aleksejevs	
Edvīns Bērziņš	Chairperman of the Board and President of SJSC Latvijas Dzelzceļš
Juris Gulbis	Chairman of the Board of Ltd Tet

b. Faculty Advisory Boards

Faculty Advisory Boards are established to consult faculty administration, provide advice to the faculty councils and deans on the faculty development strategy issues, support the formation of material and financial resources of the faculties, as well as evaluate operation of the faculties and make proposals for development of the faculties and RTU, study process improvements, planned financial investments, changes of the management model and other significant issues concerning faculty activities.

Highly professional specialists from the industry, science, education or national administrative bodies whose primary employment is not RTU can be invited to become members of the Faculty Advisory Boards.

Currently, Advisory Boards are established and function at several faculties of RTU.

Advisory Board of the Faculty of Engineering Economics and Management

Viktors Tihomirops	Director General of Vollers Rīga
Valdis Trēziņš	President of the Association Latvijas Auto
Aleksandrs Grigorjevs	Chairman of the Board of Ltd Grif
Mārtiņš Baltmanis	Head of VUGD Board of Civil Protection
Linda Mežs-Talapina	Member of the Board of Ltd LATSIGN
Kaspars Zakulis	Director of Latvijas Zaļais Punkts
Edgars Balcers	Leading Auditor of DNV GL Latvia
Uldis Vītoļiņš	Executive Director of the Association of Regional Development Centres
Dace Gaile	Head of the Procurement Monitoring Bureau
Helēna Endriksone-Severnaja	Deputy Chair of the Board of Latvian Association of Construction Engineers (LACE); Chairperson of the Board of Ltd LBS-Konsultants

Advisory Board of the Faculty of Electronics and Telecommunications

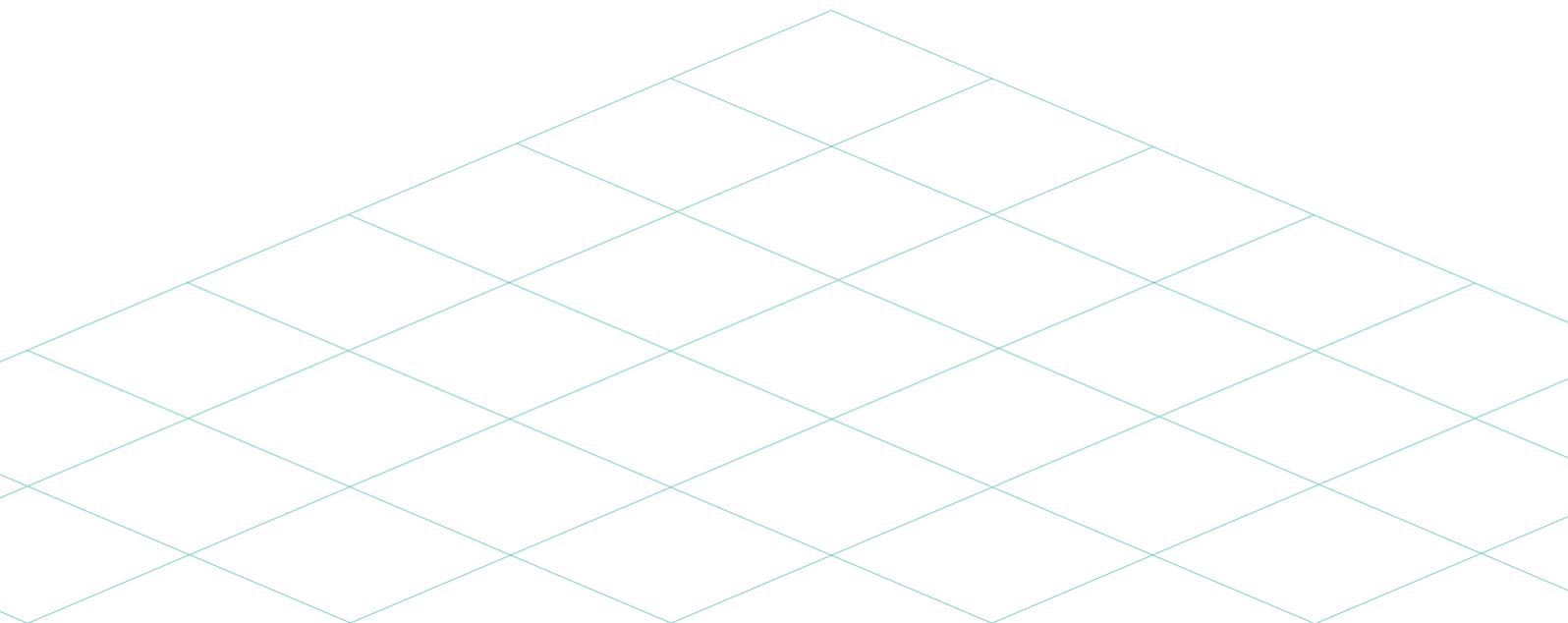
Valdis Vancovičs	Chairman of the Board of Ltd Tele 2
Didzis Liepkalns	Technical Director of JSC SAF Tehnika
Jānis Bokta	Chairman of the Board of the Latvian State Radio and Television Centre
Alfrēds Asars	IT and Telecommunications Strategic Development Director of JSC Latvenergo
Vija Gēme	Member of the Board of SJSC Elektroniskie Sakari
Ilmārs Osmanis	Chairman of the Board of JSC HansaMatrix
Modris Greitāns	Scientific Director of the Institute of Electronics and Computer Science
Normunds Lapoško	Head of the Wholesale Services Department of Ltd Latvijas Mobilais Telefons

Advisory Board of the Faculty of Mechanical Engineering, Transport and Aeronautics

Aivars Amoliņš	Member of the Board of Ltd Auteko@TUV Latvija
Maija Baumane	Representative of Latvian Branch of Siemens Healthcare OY
Jānis Druska	Head of Department of LR CAA
Edgars Kovals	Director of the Maritime School of Latvian Maritime Academy
Dzintars Naglis	Director of Ltd Naglis&Err
Ilvars Pētersons	Head of Latvian Branch of Siemens Osakeyhtio
Vilnis Rantiņš	Chairman of the Council of the Association of Mechanical Engineering and Metalworking Industries of Latvia
Lolita Smiltneice	HR Director of SJSC Latvijas Dzelzceļš
Normunds Talcis	Chairman of the Board of JSC Rīgas Siltums

Advisory Board of the Faculty of Materials Science and Applied Chemistry

Bruno Andersons	Chairman of the Scientific Council of the Latvian State Institute of Wood Chemistry
Raina Dūrēja-Dombrovska	Executive Director of the Association of the Latvian Chemical and Pharmaceutical Industry (LAKIFA)
Ilga Gavare	Quality System Director of Ltd Tenachem
Andris Jegorovs	Director of Production of Active Pharmaceuticals of JSC GRINDEKS
Juris Gulbis	Head of Division of Production of Active Pharmaceuticals of JSC GRINDEKS
Rudīte Kalniņa	Head of the Department of the Academic Library of the University of Latvia
Raitis Kalniņš	Process Engineer of Ltd Eco Baltia
Ivars Kalviņš	Chairman of the Scientific Council of LOSI
Indra Kramzaka	Deputy Director of the Environment State Bureau
Vilnis Liepiņš	Director of R&D Department of JSC Olainfarm
Marians Ļahovskis	Director General of Ltd Tenachem
Laila Pētersone	Head of the Production Development Department of JSC Valmieras Stikla Šķiedra
Vitālijs Skrīvelis	Chairman of the Board of the Association of the Latvian Chemical and Pharmaceutical Industry (LAKIFA)
Andris Vanags	Director of Ltd Sakret
Normunds Zelčāns	Executive Director of Ltd Pharmidea



09

High-Quality Education



RTU provides opportunities to select from a wide range of study programmes within the framework of a college, bachelor, master and doctoral studies, ensuring the largest number of study positions funded from the state budget in Latvia.

Many programmes are available also for part-time or extramural studies, providing opportunity to study in the evening on the working days or on Saturdays.

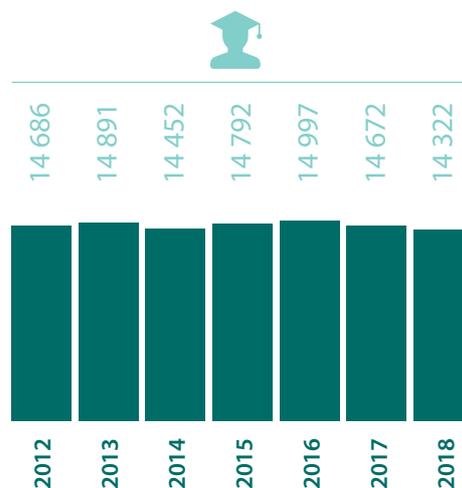
Studies at RTU are implemented by nine faculties in Riga, as well at affiliations in Cēsis, Daugavpils, Liepāja and Ventspils.

In the academic year of 2018/2019, there are 14,322 students at RTU.

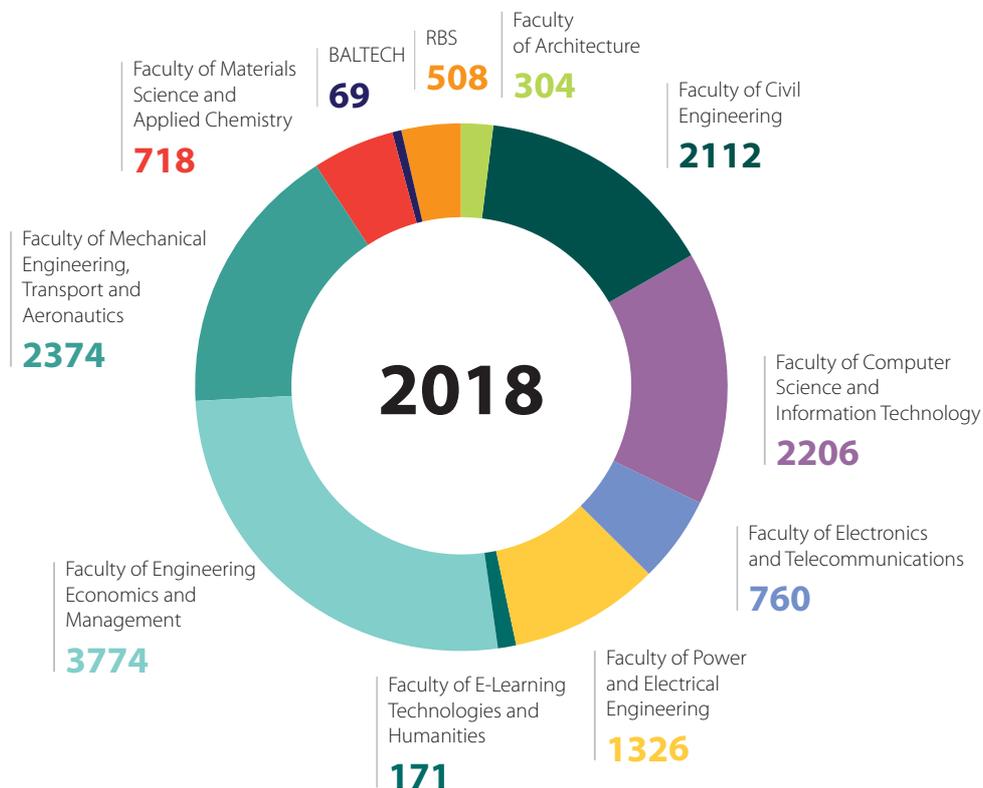
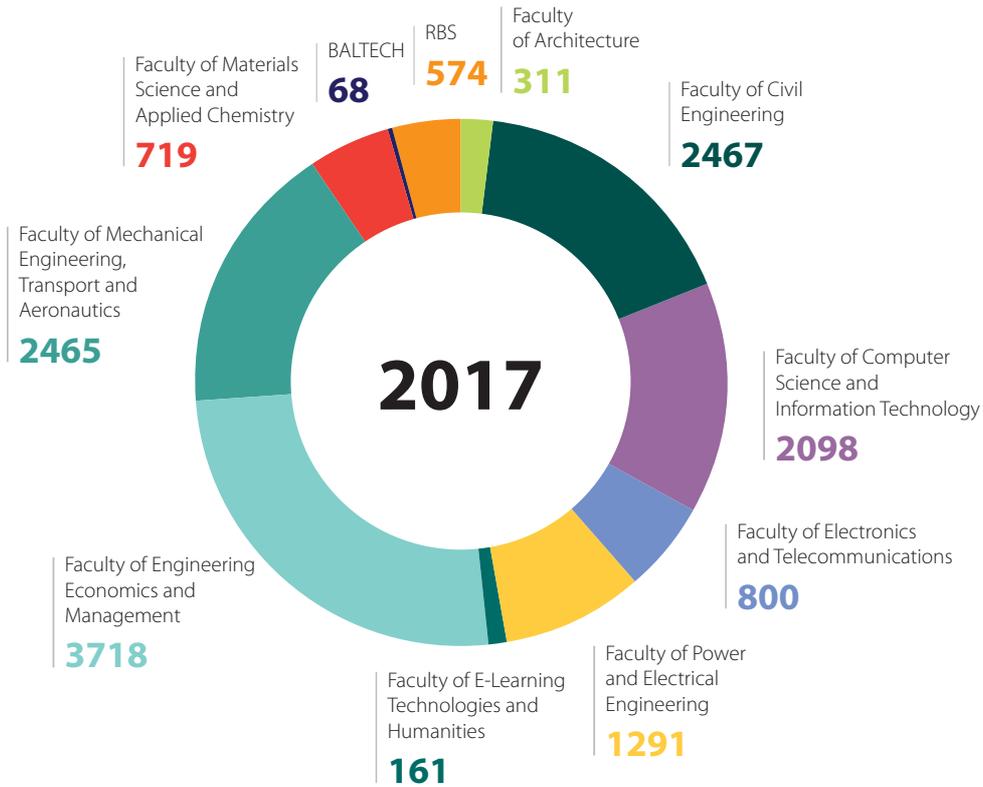
a. Study Fields

- Architecture and construction
- Economics
- Energy, electrical engineering and electrical technologies
- Physics, materials science, mathematics and statistics
- Internal security and civil defense
- Information technology, computer engineering, electronics, telecommunications, computer control and computer science
- Chemistry, chemical technologies and biotechnology
- Mechanics and metalworking, thermal energy, thermal engineering and mechanical engineering
- Production and processing
- Translation
- Management, administration and real estate management
- Environment protection

b. Total Number of Students



c. Number of Students at the Faculties

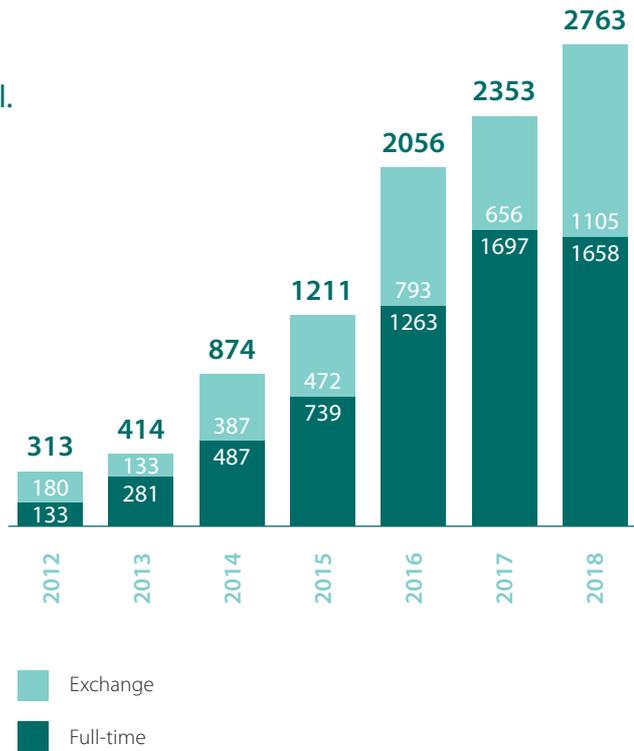


d. Number of Foreign Students

From October 1 2017 to October 1 2018, there were 2,763 foreign students in total.

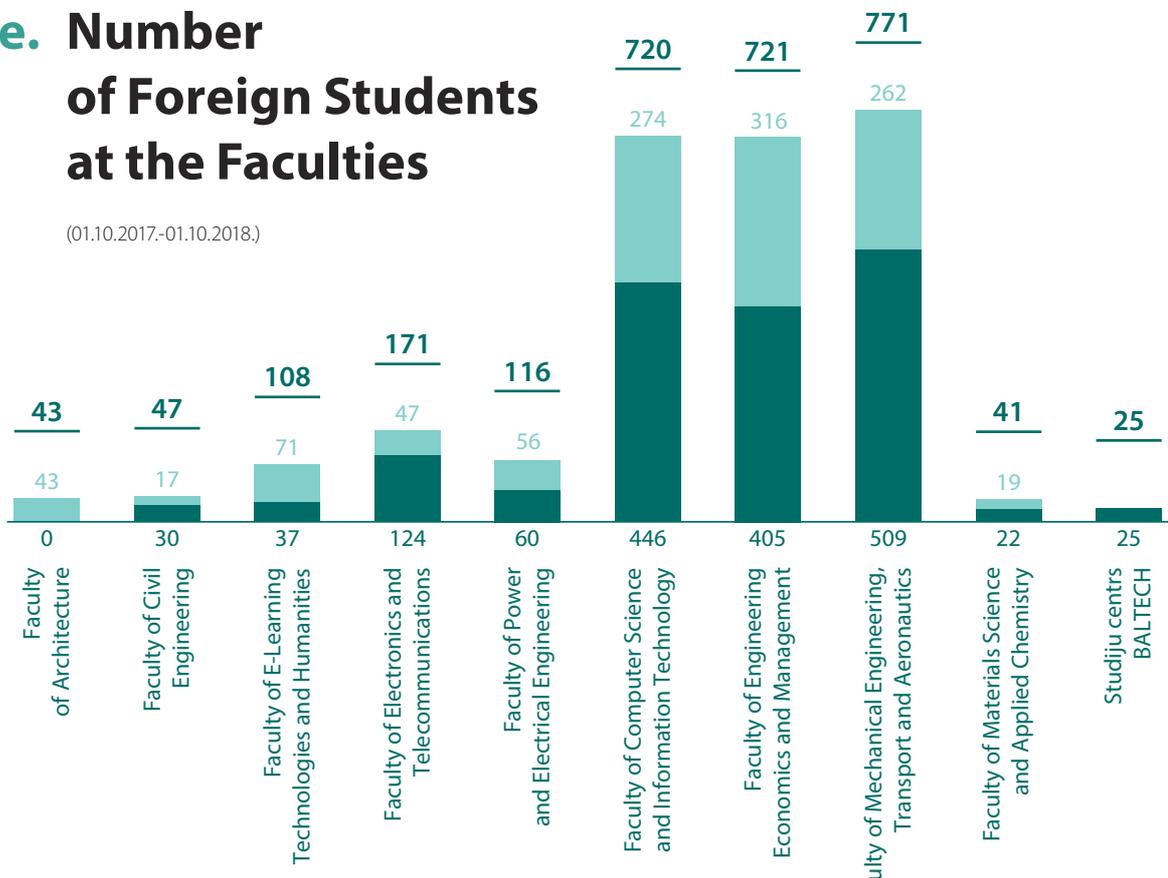
In the academic year of 2017/2018, a record number of foreign students were admitted at RTU, exceeding the number of the previous year by 14%. 1,294 foreign students were enrolled, which is 158 students more than in the academic year of 2016/2017. The number of foreign students at RTU has been growing considerably during the last years, having increased more than ten times within eight years.

Internationalization is one of the significant strategic objectives of RTU and the growing number of foreign students is the result of the targeted activities in attraction of these students. The most significant increase of the number of students in recent years is recorded for such countries as Germany, China, Russia, Sri Lanka, Kazakhstan and Mexico.



e. Number of Foreign Students at the Faculties

(01.10.2017-01.10.2018.)



f. Studies

In 2018, RTU launched two new study programmes.

- **Professional Bachelor Study Programme “Financial Management Information Systems”**

RTU implements this programme in cooperation with BA School of Business and Finance (BASBF), educating software developers for financial systems.

The banking system becomes increasingly more computerized and uses increasingly more complex solutions. Therefore, there is a growing demand for specialists who can efficiently develop specialized software for financial systems. Training of such specialists is implemented uniting the most competitive resources of two universities – educational resources of RTU in computer science and information technology and the BASBF competence and experience in business management and financial education.

The new study programme is unique; Latvia has not yet had such an interdisciplinary programme created through cooperation between the members of academic staff of the study programmes that meet the labor market demand and that itself is highly valued by the employers. On the part of RTU, the aforementioned programme is implemented by the Faculty of Computer Science and Information Technology.

- **Academic Master Study Programme “Digital Humanities”.**

This is an interdisciplinary programme that ensures integration of the latest information technologies in humanities. The main topics covered by the study process are digitization, representation and archiving, processing, visualization and analysis of data related to humanities and cultural studies – textual and multimedial. This programme is implemented by the Faculty of E-Learning Technologies and Humanities.

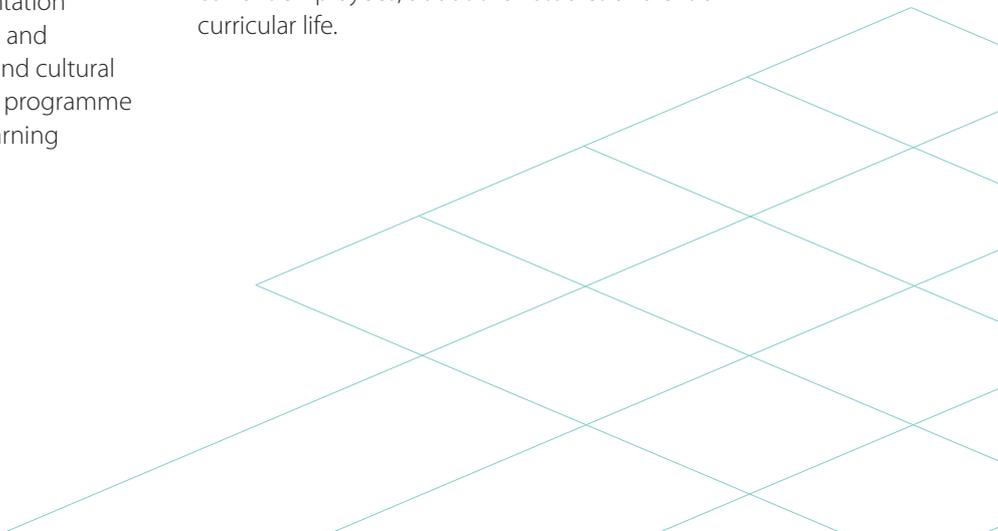
Opportunities for Students to Participate in the Innovation Process

RTU Faculty of Engineering Economics and Management (IEVF) has opened a student creative laboratory, where the first prototypes of new products have been released.

The student creative laboratory is established to provide an opportunity for the students to exercise their creativity and to increase their involvement in the innovation process. The first prototypes developed by student teams have already been presented. For example, they offer a solution for storing a bicycle in the residential premise, a wireless charger for a mobile phone, a suitcase for travelling that can be adjusted in accordance with the requirements of different airlines to the size of hand luggage, cups for taking coffee with dishes for small snacks, a device for stress reduction.

The Faculty of Power and Electrical Engineering Turns 60

On September 1 2018, RTU Faculty of Power and Electrical Engineering (FPPE) celebrated its 60th anniversary. In honor of this historical event, a book by Alnis Auziņš devoted to the history of the faculty was released – “Faculty of Power and Electrical Engineering – 60”. The book presents an overview of the most important facts from the faculty’s history, contains short biographies of its most recognized employees, and provides an insight into the history of development of energy and electrical engineering in Latvia. The publication is supplemented with reminiscences of the contemporaries of the faculty, both former and current employees, about their studies and extra-curricular life.



Successful Cooperation between RTU and the Latvian Academy of Culture

RTU and the Latvian Academy of Culture (LAC) recognize their joint academic Bachelor study programme "Creative Industries" to be a successful experiment, although the decision to create a joint programme was initially rather venturesome and experimental. It was acknowledged after the first half-year of studies in January 2018 by programme directors Agnese Hermane (LAC) and Deniss Ščeulovs (RTU).

The first students were enrolled in the new study programme in the academic year of 2017-2018. The goal of the programme is to educate and train entrepreneurs for creative industries, who understand business processes and their regularities, know modern business models, are familiar with culture and art, are capable of seeing the potential contribution of culture to business and vice versa.

The cooperation is considered to be successful also from the institutional viewpoint, demonstrating that cooperation on the parity principles is possible between a large university with rich traditions and a relatively small and new university. It also obviously demonstrates, not just simulates the real interdisciplinarity. Within the study program, LAC ensures training in arts and culture, as well as is responsible for the courses facilitating understanding of creative industries, whereas RTU implements the courses in economics, entrepreneurship, e-commerce and technology-related subjects.

First Graduates of the Study programme Created together with Vilnius Gediminas Technical University

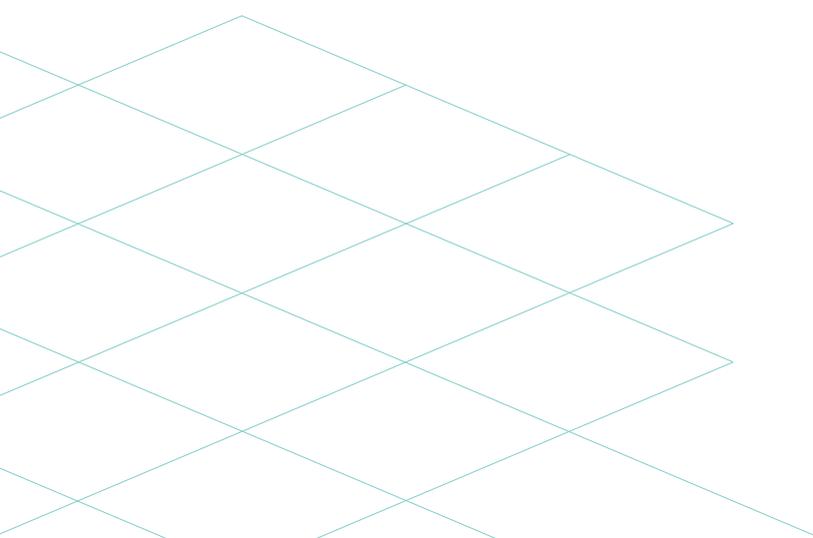
In February 2018, the first alumni graduated from the RTU academic Master study programme "Innovative Solutions in Geomatics". The programme is implemented by the Faculty of Civil Engineering, and its graduates get a joint diploma from both RTU and VGTU. The studies at both programmes last for three semesters, they are conducted in English and implemented in Riga and Vilnius. Both programmes have state-funded places.

RTU Graduates for the First Time Receive Electronically Signed Academic Transcripts

RTU graduates, who completed their studies in winter of 2018, received academic transcripts to their certificates in the electronic form signed by the e-signature for the first time in the history of Latvia.

The electronic academic transcripts, which include the comprehensive data about the completed study program, was signed with the safe e-signature by the RTU Vice-Rector for Academic Affairs Professor Uldis Sukovskis. The signature contains the time seal, thus, in accordance with the Electronic Documents Law, academic transcripts in the e-format have legal effect and can be used exactly the same way as the documents in the paper format. They can be submitted in a convenient way, sent to the addressee from a computer or any smart device. RTU graduates can download their academic transcripts by authorizing in the RTU internal network. Access to the electronic academic transcripts is retained for the graduates also upon their graduation from RTU.

By preparing academic transcripts only in the electronic format, RTU saves both time and finances, as well as takes care for saving the natural resources.



g. Scholarships

RTU students, who study on the state budget, can also receive a monthly scholarship. RTU students can also apply for other scholarships, which are financed and granted by different funds.

- **State-funded scholarships**

All students, who study on the state budget, who in accordance with the requirements of the RTU Study Results Evaluation Regulation have passed all tests and examinations within the period set by RTU at the first attempt, and who have no academic liabilities, are eligible for the receipt of a scholarship on a competitive basis.

- **RTU Development Fund scholarships**

RTU Development Fund by attracting donations and gifts from organizations, legal and natural persons, grants scholarships to the students of RTU and other universities. In cooperation with the supporters, the Fund offers:

- Internship scholarships;
- Study scholarships;
- Science and research grants.

RTU Students Receive Scholarships from the Patrons

Nine RTU students from four faculties received scholarships for the academic year 2018/2019 from the patrons – the Galenieks family and Kristaps Morbergs.

The third year student of the Bachelor study programme “Automobile Transport” Nikita Kuzmins, the fourth year student of the Bachelor study programme “Medical Engineering and Physics” Mārtiņš Ļuļļa and the third year student of the Bachelor study programme “Aviation Transport” Artūrs Mazurs received a scholarship established by the patrons of the Latvian descent living in the USA Valija and Modra Galenieks, which is aimed to support the most successful full-time students in engineering sciences. The scholarship is intended for the second to fourth year students of Bachelor study programmes implemented by RTU Faculty of Mechanical Engineering, Transport and Aeronautics (MTAF). The size of one scholarship is EUR 1,000.

In turn, a FMETA student of the Bachelor study programme “Railway Transport” Pāvels Dadojenkovs, a student of the Bachelor study programme “Chemical Technology” of the Faculty of Materials Science and Applied Chemistry Andris Jeminejs, a student of the Bachelor study programme “Architecture” of the Faculty of Architecture (AF) Ieva Stradiņa, a student of the AF Master study programme “Architecture” Undine Ģemze, a student of the Bachelor study programme “Transport Structures” of the Faculty of Civil Engineering (FCE) Renāts Kristaps Grīnfelds and a FCE student of the Bachelor study programme “Construction” Ivo Liepa received grants from the patron Kristaps Morbergs. The total K. Morbergs scholarship fund for RTU students in 2018 was EUR 11,400.

h. Engineering High School (EHS)

Engineering High School of RTU was founded in 2015 to support academically gifted young people of Latvia who see their future in engineering. The school has been acknowledged as the leading institution of the secondary education in Latvia. It has been ranked as the first in the School Ranking system of the Atis Kronvald's Foundation; its students have achieved the highest scores in the centralized exams, as well as have won numerous national and international olympiads.

First Graduates of the Engineering High School (EHS) of RTU

On June 30 2018 the first 24 graduates of the Engineering High School (EHS) of RTU, who started their studies at the recently established EHS in 2015, celebrated their school leaving party. The graduates were greeted by the President of Latvia Raimonds Vējonis, Minister of Education and Science Kārlis Šadurskis and by the EHS supporters – representatives of Latvenergo and Lattelecom.

The RTU EHS graduate Rebeka Anna Līpiņa received the Centennial Honors Student award from the Minister of Education and Science. RTU Rector handed over the newly established RTU award "RTU EHS Graduate of the Year" to the graduate Ivars Dille. Ten graduates received Certificates of Merit from the Prime Minister, whereas administration and teachers of the school received Certificates of Merit and gratitude from the Ministry of Education and Science.

RTU EHS was established in 2015 in order to support the talented Latvian youth, who would like to connect their future with engineering sciences.

Distinguished secondary school graduates study at RTU according to the individual study plan

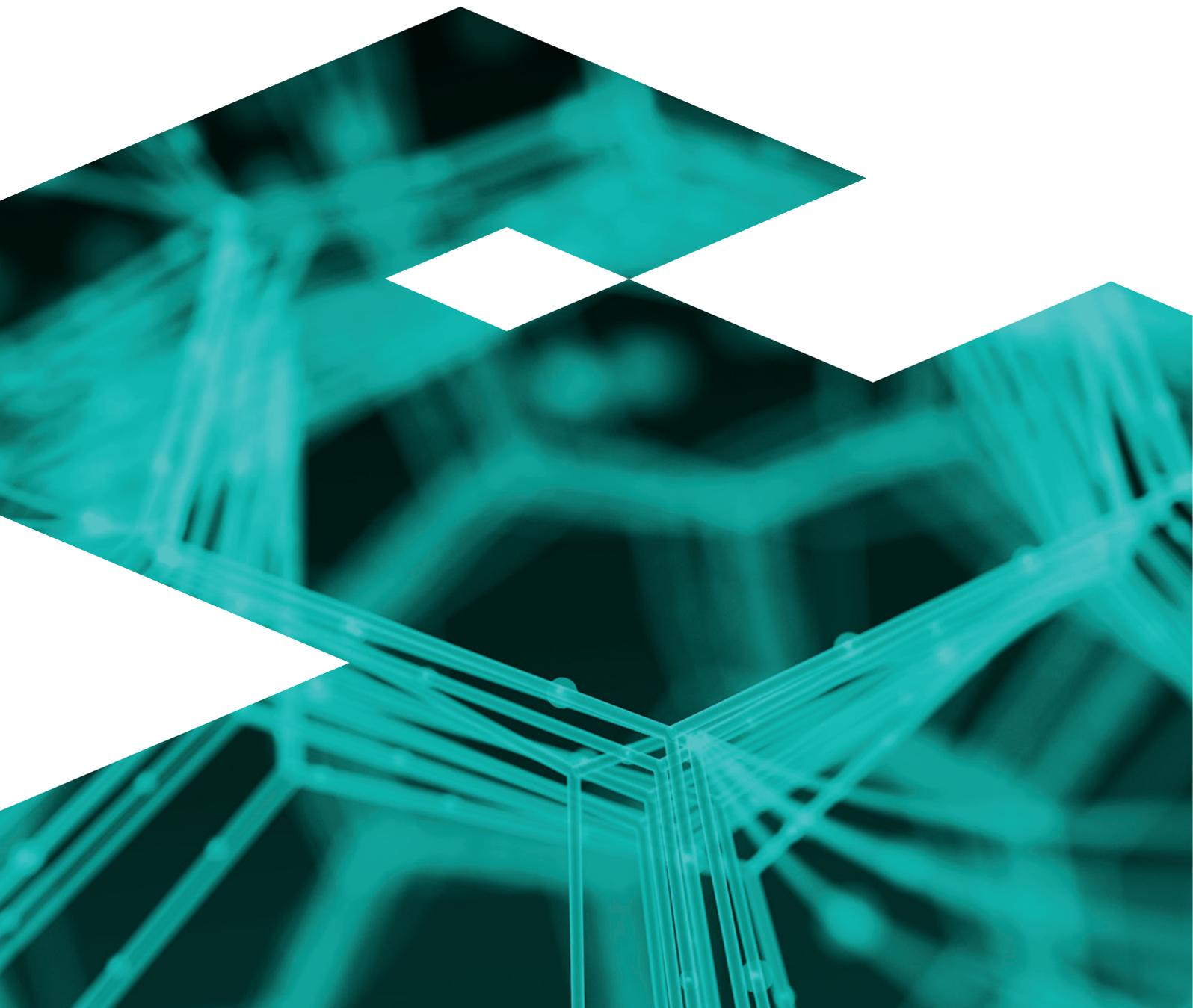
In the academic year of 2018/2019, RTU offers a special Programme of Excellence for the secondary school graduates, who have demonstrated excellent results and achievements at the national and international competitions. Such youth can study at RTU according to their own individual plan to achieve excellent results in studies, research and technology transfer or valorization.

By offering the Programme of Excellence, RTU continues supporting the gifted youth promoting their interest in engineering studies. This programme was started three years ago with the establishment of the Engineering High School (EHS) of RTU. This is an opportunity for first graduates of EHS, who completed the school in summer of 2018, to master RTU study programmes in a more intensive way and in accordance with their own specific interests.



10

Excellence in Research



Scientific research is an integral part of the study process at the university and it is implemented within all study programmes. The strategic goal of the fundamental and applied research implemented at RTU is to analyze the topical technical and social issues and provide solutions to them. The scientific

potential developed in the course of the fundamental and applied research is gradually applied in practice in business activities.

RTU aims to become one of the leading universities of science and technology in Europe.

a. Research Platforms

The rapid development of technologies in the industry requires complex solutions to the issues that surpass the borders of specialization of one faculty. Therefore, researchers from different faculties of Riga Technical University cooperate in interdisciplinary research within six research platforms that are of special importance for the national economy and society.

Energy and Environment

Vision

Leading centre of competence in the field of energy and environment in the Baltics

Operation Areas

- Safety of energy supply systems and optimal operation modes to increase their performance and economic returns;
- Methods and technologies for increasing efficiency of electricity and heat generation, transmission, distribution and consumption;
- Methods and technologies for promoting the use of renewable energy sources to increase energy independence in the region and minimize environmental impacts;
- Climate technology and environmental methods for the circular economy.

Cities and Development

Vision

Significant centre of competence in the field of urban development in the Baltics

Operation Areas

- Sustainable living environment;
- Efficient urban infrastructure;
- Identification, protection and development of cultural heritage;
- Urban development (development of new technologies);
- Urban planning economy;
- Evaluation of urban infrastructure activities and risks to economic growth.

Information and Communication Technologies

Vision

Internationally acknowledged and leading platform of knowledge in public technologies in Latvia

Operation Areas

- Exploration of the usability of e-learning systems and development of new e-learning technologies, methods and systems;
- Research of the Internet of Things and Big Data transfer and processing, information transfer.

Transport

Vision

Excellent and internationally acknowledged centre of research and expertise in the field of road and aviation transport in the Baltics

Operation Areas

- Energy efficient and safe road and rail transport;
- Safe and financially efficient air transport;
- Efficient transport infrastructure;
- Reliable and safe methods for diagnostics of technical condition of vehicles and transport infrastructure.

Materials, Processes and Technologies

Vision

Leading centre of competence in the field of materials, processes and technologies in the Baltics

Operation Areas

- Development and functionality of biocompatible, biodegradable materials integrable within and outside the human body;
- Development of high value added materials from local and renewable resources;
- Smart materials for environmental monitoring and purification – development, research and integration into the existing infrastructure;
- Development of smart materials for alternative energy generation (H₂O cleavage, piezoelectric nano-structures);
- Electro-optical materials in construction, automotive industry and defense – research and development;
- Organic chemistry and pharmaceutical processes and technologies.

Security and Defense

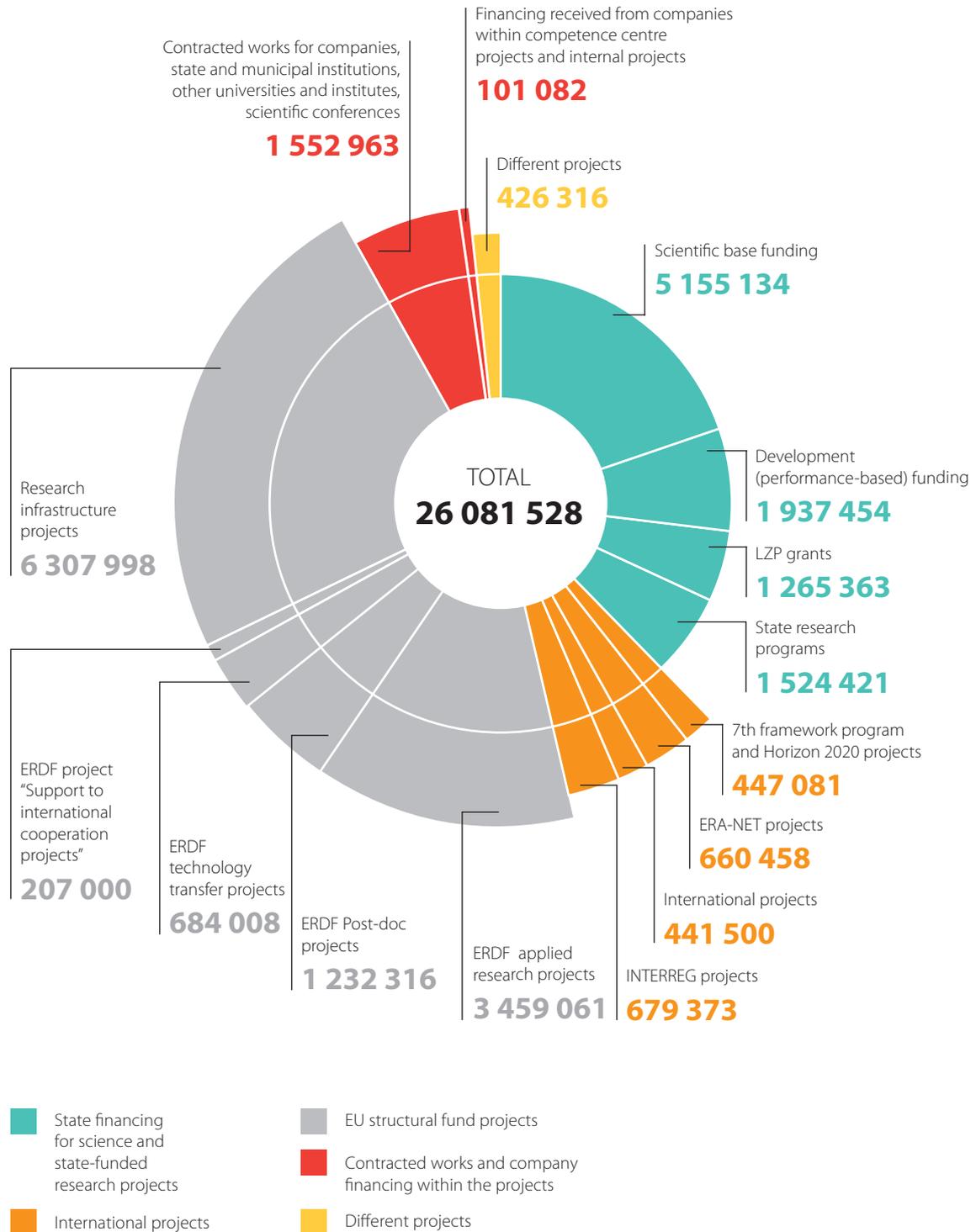
Vision

Internationally acknowledged centre of strategic significance in the field of development of security products and control of their circulation

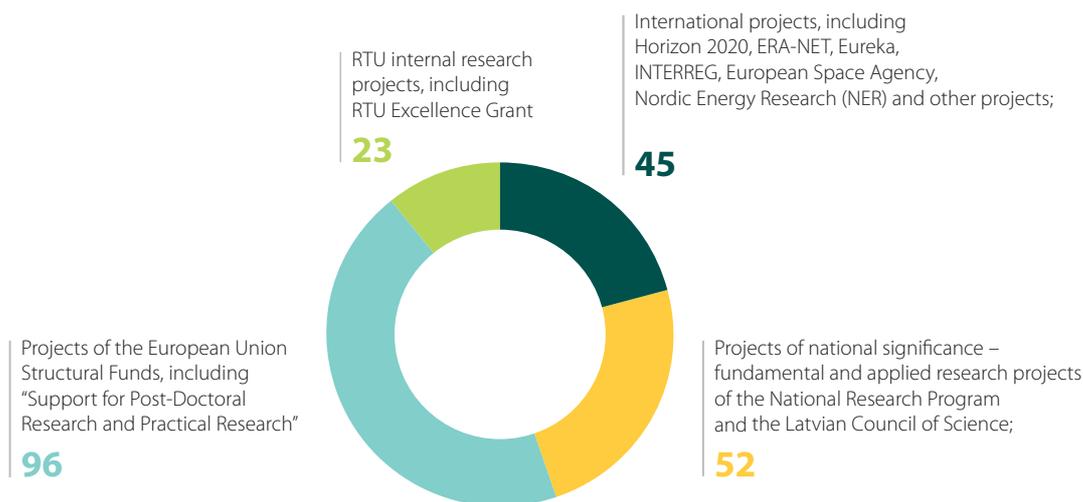
Operation Areas

- Strategic products for international security;
- Border security;
- National economic security;
- Civil defense.

b. Financing of Science



c. Scientific Projects



d. Events

RTU Professor Valdis Kokars Elected Academician

In autumn of 2018, RTU Professor of the Faculty of Materials Science and Applied Chemistry Valdis Kokars was elected a full member of the Latvian Academy of Sciences (LAS). He has been a corresponding member of LAS since 2009. In the past, V. Kokars also received a memorial medal of the great Latvian scientist Paul Walden for his research on photosensitive organic compounds in chemistry.

RTU Scientists – Corresponding Members of the Latvian Academy of Sciences

In autumn of 2018, the Dean of RTU Faculty of Electronics and Telecommunications Professor Jurģis Poriņš and a Leading Researcher of RTU Faculty of Materials Science and Applied Chemistry Jānis Ločs were elected corresponding members of the Latvian Academy of Sciences (LAS). Research interests of J. Ločs are related to biomaterials, whereas research interests of J. Poriņš lie in fiber optic transmission systems.

RTU Organizes a Grand European Conference in Energy Electronics

On September 17-21 2018, energy and electrical engineering scientists from all over the world met in Riga at the scientific conference EPE 2018 devoted to energy electronics to familiarize themselves with the latest scientific research in this field. This is the most wide-scale conference in Europe in the field of energy electronics that welcomed world-renown scientists as its speakers. There were also workshops, where scientific publications were presented. A separate day was devoted to young scientists – doctoral students – who presented their research.

The conference was attended by 700 participants from 42 countries. Most of the presenters came from Germany and Nordic Countries, including Latvia. 12% of all participants were from Japan, which is worth special notice. Twenty-two international companies operating in the field of energy electronics participated in the exhibition. On the day prior to the conference, eight training seminars were held at RTU Faculty of Power and Electrical Engineering in various fields of power electronics and manufacturing technologies.

The event received financial support from the conference Platinum Cooperation Partner JSC Latvenergo, which is the leading trader of electric energy in the Baltics and also the long-term supporter of RTU.

RTU Cooperation with CERN

In January of 2018, the Latvian government made a decision to start the accession process to the European Organization for Nuclear Research (CERN), so that several years later Latvia could become a full member state of CERN. This is the result of the targeted work of RTU, which already in 2012 concluded a cooperation agreement with CERN and has been successfully cooperating with it within several scientific projects.

CERN has been the world leading scientific center for 60 years, the home of discoveries of global significance. It is exactly in CERN where the Internet was invented. One of the publicly most well-known discoveries was made six years ago – the existence of the Higgs boson was proven with the help of the Large Hadron Collider.

- In May 2018, universities from Latvia, Estonia and Lithuania officially established the Baltic Group for cooperation with CERN by signing the Memorandum of Understanding in Geneva, which is a unique case in the history of CERN. So far, not in any other region the countries have been capable of legally uniting their efforts in order to coordinate their cooperation with the world's major center for particle physics research, innovation and scientific discovery. The CERN Baltic Group unites the biggest universities of the region — RTU, University of Latvia, Riga Stradiņš University, Kaunas University of Technology, Vilnius University, the National Institute of Chemical Physics and Biophysics (Estonia), Tallinn University of Technology and Tartu University. The CERN Baltic Group is headed by RTU Professor and CERN research associate Toms Torims.
- In cooperation with CERN and leading representatives of the industry, RTU started implementing the Proof of Concept Project in order to find solutions for the growing environmental problem — purification of ship discharge gases by using an innovative method with particle accelerator. The project is coordinated by the RTU Center of High Energy Physics and Accelerator Technologies and it is planned to test an innovative method within the project by using a linear particle accelerator for purification of ship discharge gases. Within two years, it is planned to perform a preliminary research in order to understand whether this method can potentially provide a solution to prevent ship fuel emissions from polluting the world ocean.
- For the Latvian scientists, the participation in CERN will open new opportunities to conduct research in different areas at the world citadel of physicists, to participate in research projects implemented by CERN and cooperate with other countries, whereas the doctoral students can employ opportunities to develop their Doctoral Theses at CERN. Entrepreneurs will be able to qualify for CERN orders, because to provide for scientific activities different technological equipment is required, which can be supplied to CERN by the Latvian companies.

- In spring 2018, within the information event presenting the activities and scientific achievements of the European Organization for Nuclear Research (CERN) to the residents of Latvia, it was possible to attend the exhibition "CERN – Accelerator of Science" in the premises of the National Library of Latvia. The Prime Minister Māris Kučinskis, the Minister of Education and Science Kārlis Šadurskis, RTU Rector Leonīds Ribickis and CERN Director Frédérick Bordry took part in the formal opening of the exhibition. Its visitors had the opportunity to find out how the universe had originated and could familiarize themselves with the fundamental research in physics conducted at CERN.

Mitutoyo Laboratory is Opened at the Faculty of Mechanical Engineering, Transport and Aeronautics

In September 2018, the Mitutoyo Metrology Laboratory of the Faculty of Mechanical Engineering, Transport and Aeronautics FMETA was opened in the RTU Laboratory House. It is equipped with the most advanced measuring instruments and will be used in both studies and research.

The laboratory is equipped with the most up-to-date equipment from the Japanese manufacturer Mitutoyo, which produces the most advanced measuring instruments of this type in the world. Students and academic personnel will have access to a variety of geometrical measurement machines, which are primarily used to control the quality of the manufactured components, ranging from measuring simple linear dimension between two surfaces to complex control of the geometry of 3D surfaces and non-lustre measurements of surfaces. The laboratory is instrumented with a device to control the roundness of parts, a contour measuring instrument, a 3D coordinate measuring machine, a 2D roughness measuring instrument, a non-contact 2D optical measuring microscope, instruments measuring the height of parts, as well as various hand tools for measurements. The establishment of the laboratory was financed by the representative of Mitutoyo Company in Latvia Ltd INSTRO.

Scopus Indexed Scientific Journal on Transport Structures is Published by RTU Publishing House

Under the auspices of the RTU Publishing House, the international scientific journal *The Baltic Journal of Road and Bridge Engineering* is released, which is indexed in the prestigious *Scopus* database (*Elsevier Bibliographic Database*). The journal is devoted to construction, operation and quality management of roads and bridges, environmental issues, safety and other related issues. The chief editor of the journal is Director of the RTU Institute of Transport Infrastructure Engineering of the Faculty of Civil Engineering Professor Ainārs Paeglītis. The international editorial staff includes 28 experts in transport infrastructure engineering from 12 countries.

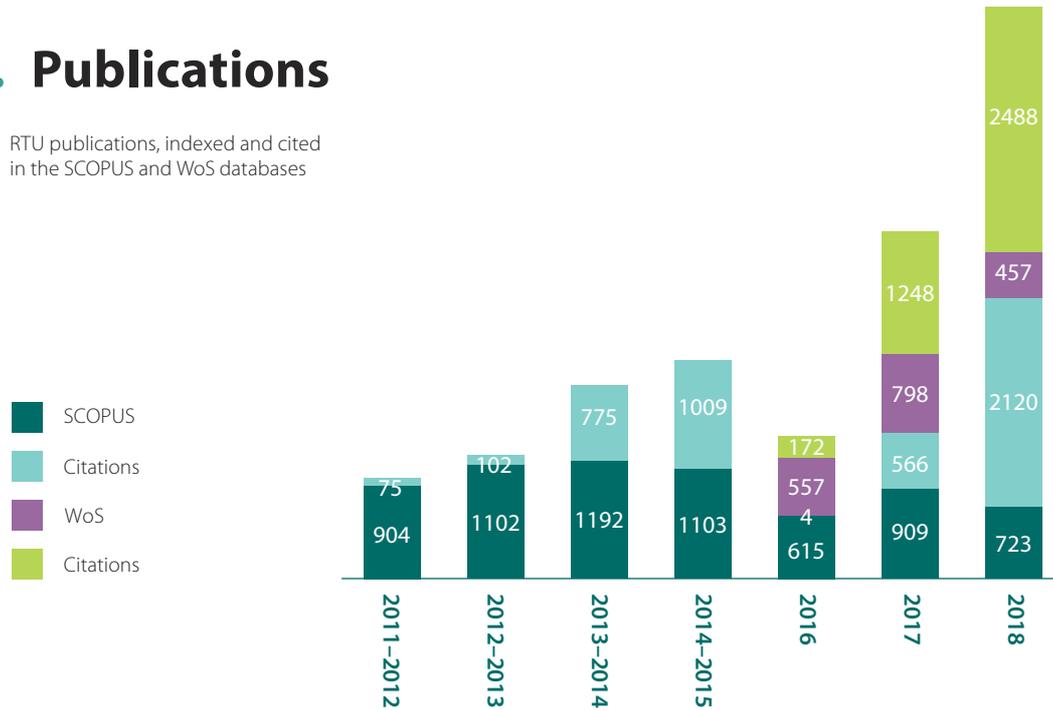
The Baltic Journal of Road and Bridge Engineering has been issued since 2006. Earlier it was issued by Vilnius Gediminas Technical University and since March 2018 – by RTU. This is the second journal published by the RTU Publishing House that is indexed in the *Scopus* database. The first is the journal *Environmental and Climate Technologies* issued by the Institute of Environment and Energy Systems of the Faculty of Power and Electrical Engineering.

Institute of Heat, Gas and Water Technology Turns 25

The RTU Institute of Heat, Gas and Water Technology of the Faculty of Civil Engineering (SGUTI) celebrated its 25th anniversary in October 2018. SGUTI was established in 1993, and the study programme Heat, Gas and Water Technology is implemented under its auspices. The programme has two majors – building engineering systems and infrastructure of the populated areas. RTU is the only university in Latvia that educates and trains engineers and researchers in this area for work at big joint stock companies and municipalities, as well as the specialists for designing engineering systems of the buildings and installation work supervision. Specialists in heat, gas and water technology ensure cities and other populated areas with infrastructure for heat, gas and water supply and sewerage, as well as provide the required modernization, operation and maintenance of the building engineering systems.

e. Publications

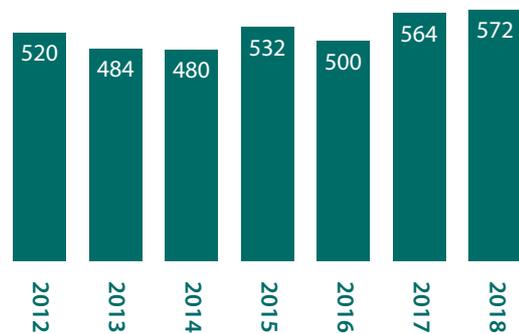
RTU publications, indexed and cited in the SCOPUS and WoS databases



f. Doctoral School

RTU implements 20 accredited Doctoral study programmes in engineering, natural sciences, architecture, social and service sciences.

Number of Doctoral Students



Doctoral Studies

- Development of scientific communication skills

Masters, Doctoral students and post-docs are provided with the opportunity to improve their presentation skills and speak at various events, as well as participate in the competition Research Slam, the 4th World Congress of Latvian Scientists and the LAMPA conversation festival.

- Development of research skills

Doctoral students and other stakeholders are offered a series of seminars and activities for the development of different general skills, including the introductory seminar "Brief Doctoral Course" for the first year Doctoral students, a cycle of seminars on the preparation of the applications for scientific projects and other topical issues.

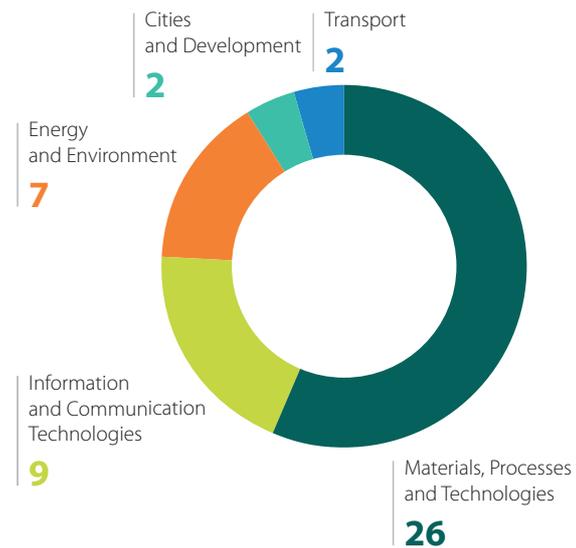
- Quality assessment

Since 2011, the annual polling of Doctoral students and Doctoral graduates has been conducted to evaluate the quality of Doctoral studies at RTU and identify opportunities and challenges for the development of the programs.

Post-Doc Studies

Since 2017, RTU has started providing post-doc research projects for the operational programme "Growth and Employment" within the framework of the specific objective 1.1.1 "To Increase the Research and Innovative Capacity of Scientific Institutions of Latvia and the Ability to Attract External Financing, Investing in Human Resources and Infrastructure" of the 1.1.1.2 measure "Post-Doctoral Research Support".

Currently, RTU implements 46 post-doc research projects, encompassing a wide range of topics and directions. The bulk of the projects are devoted to development of new technological solutions and addressing societal challenges.



g. Cooperation

Cooperation with the Latvian Academy of Sport Education

Promoting the development of the Latvian sport technologies, RTU and the Latvian Academy of Sport Education (LASE) started to cooperate in studies, research and innovations, and on October 3 2018 at a solemn ceremony RTU Rector Academician Leonīds Ribickis and LASE Rector Professor Jānis Židens signed a cooperation agreement.

The agreement anticipates the cooperation between RTU and LASE in sport science in the area of development of new sport technologies. Sledge, bobsleigh and skeleton athletes will be among the first to use the scientific potential and laboratories of RTU, which will work on improving the slanting of sleds, whereas LASE specialists will offer the biomechanical movement analysis to the athletes.

The agreement provides RTU and LASE students and academic staff with an opportunity to use research laboratories of both universities to promote research activities and the study process, it also provides the framework for exchange of students and academic staff to acquire new cross-disciplinary knowledge.

Cooperation with the BA School of Business and Finance

On January 23 2018, RTU Rector Academician Leonīds Ribickis and the Rector of the BA School of Business and Finance Professor Andris Sarnovičs signed the strategic partnership agreement on cooperation in studies, research and valorization or innovation and technology transfer.

Cooperation between the universities is needed because study programmes are frequently backed up in Latvia or they are too narrowly specialized, but there is a growing demand for cross-disciplinary knowledge that can be provided to the university students by creating joint study programmes and equipping them with the skills needed in the labor market.

Together, two universities can contribute to improving the quality of Latvia's higher education, as RTU and BA, each in their field, implement high-quality study programmes, which have been highly assessed by employers, and the development of joint programmes will further improve the quality of the two university study programmes, as well as contribute to a more targeted offer for the labor market.

Universities Cooperate in Cybersecurity Research

In October 2018, RTU, Riga Stradins University and BA School of Business and Finance signed an agreement on cooperation in cybersecurity competencies. The universities committed themselves to joint cross-disciplinary research by offering their solutions for cyber protection and to developing new cross-disciplinary study programmes so that the students could address the issues of cybersecurity at all levels of their studies.

Cybersecurity is the strategic priority of the European Union (EU) and Latvia, it is an important dimension of the safety of each EU Member State and its society, as well as the safety of each human being. However, both the EU and Latvia experience the lack of the sufficient provision with cybersecurity professionals in both the public and private sectors. The partnership between universities in developing cyber security competence in Latvia provides the opportunity to work together with the experts representing technical, social and humanitarian disciplines, offering their solutions in the area of cyber protection.

Mikrotikls Donates EUR 250,000 for Engineering Education

A Latvian company Ltd Mikrotikls, which is more widely known by the brand MikroTik, has made a significant contribution to the higher education by donating EUR 250,000 to the RTU Development Fund for the development of several engineering areas.

The main directions supported by the company are electronics, telecommunications and computer science, as well as RTU projects related to popularization of engineering sciences among schoolchildren and improving their knowledge in exact sciences. The company also provides support to the RTU Engineering High School (EHS), as well as donates equipment to faculty laboratories, thereby significantly improving the multiformity of the university programmes and helping to create a more modern learning environment. The received donation is a significant contribution to the development of the Latvian higher engineering education and promotion of interest in engineering sciences among the youth.

11

Sustainable Valorization



a. Innovation and Technology Transfer Centre

The Innovation and Technology Transfer Centre supports the involvement of RTU scientists in valorization activities, ensures the monitoring and protection of the university intellectual property, promotes innovation and technology transfer, ensuring the implementation of scientific research results in a commercially exploitable manner, and develops sustainable relations and professional communication with external partners, representing the interests of RTU and promoting local and international visibility.

Main areas of activities:

- Support to RTU scientists in valorization activities;
- Technology transfer provision;
- IP protection and supervision;
- Cooperation with the industry and external partners.

One of the most significant technology transfer activities is involvement of RTU scientists in the programme administered by the Investment and Development Agency of Latvia (LIAA) "Support to Commercialization of the Research Organization Results". Within the framework of this programme, RTU has already attracted almost 1.8 m EUR for development of new technologies. The Innovation and Technology Transfer Centre assists the scientists by providing support in drawing up and submission of project applications, ensuring

training in idea presentation skills, coordinating the process and maintaining communication with LIAA.

Using the attracted financing, RTU researchers develop various technologies to be later offered to the manufacturers. RTU is developing a zero energy technology for treating wastewater of pharmaceutical companies from particularly persistent organic pollution, a technology for obtaining natural thermal packaging material from a widely available coniferous wood in Latvia, a technology for extracting omega-3 oil from biodegradable waste from other industries. RTU scientists develop multi-robot systems for cleaning industrial premises, as well as high-strength polymer and glass-fiber hybrid filaments for 3D printers.

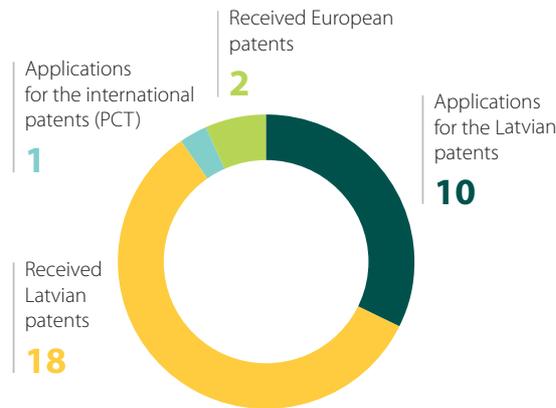
IP Protection and Licensing of Technologies

RTU intellectual property protection and supervision are significant tasks performed by the Innovation and Technology Transfer Centre, which includes raising awareness among RTU researchers and students about the importance of intellectual property issues, particularly in the commercialization process, as well as providing financial resources and rendering consultations to prepare applications for the Latvian and international patents.

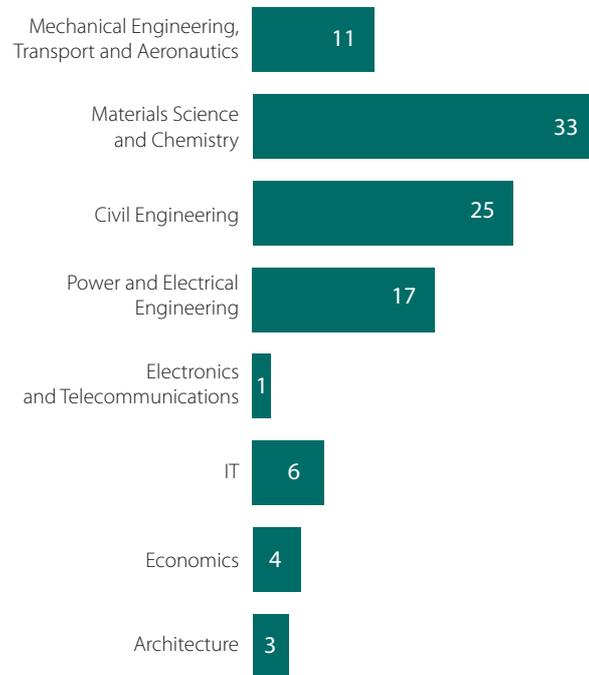
Patents

In 2018, RTU held 94 effective Latvian patents and 9 foreign patents

IP objects created as a result of RTU research activity are primarily protected by patents or know-how. Such intellectual property rights make it possible to carry out licensing or selling transactions. Licensing of technologies is ensured by the RTU Innovation and Technology Transfer Centre. In total, RTU has 8 license agreements concluded, of which 6 were effective in 2018.



Industries where RTU provided innovative solutions, inventions and innovations in 2018

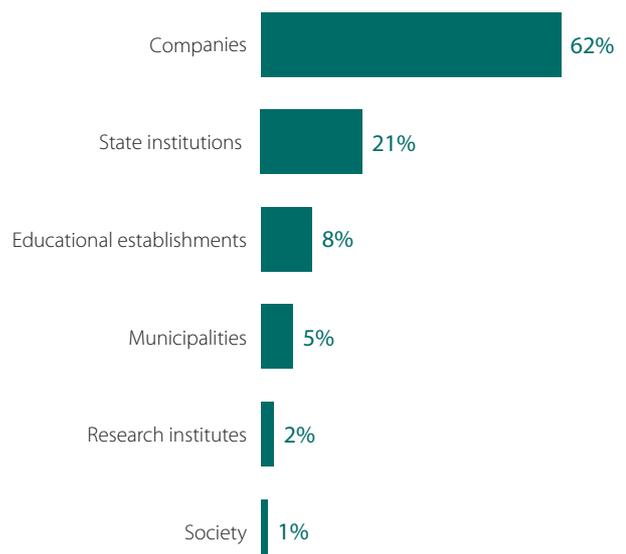


Cooperation with the Industry

RTU researchers actively cooperate with the Latvian and foreign companies and organizations, ensuring an opportunity to improve the existing products and services, as well as to develop new ones. Every year, on average 150 contractual works are implemented. SJSC Latvenergo, JSC Grindeks, JSC Augstsprieguma Tīkls, Ltd Latvijas Mobilais Telefons, SJSC Latvijas Valsts Ceļi, JSC Latvijas Gāze, JSC Latvijas Valsts Meži, JSC Valmieras Stikla Šķiedra, SJSC Latvijas Dzelzceļš, JSC UPB, JSC Dobeles Dzirnāvnieks, and other can be mentioned as the biggest cooperation partners of RTU.

Companies are invited to invest in innovative knowledge and technology projects in order to create products with high added value in cooperation with RTU researchers.

Contractual Work Partners in 2018



b. Department of Business Development and Investments

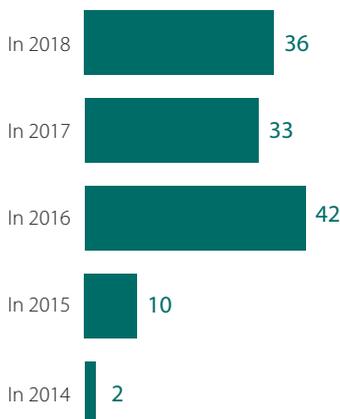
The objective of the Department of Business Development and Investments is to commercialize knowledge and inventions created by RTU, strengthening growth and competitiveness of RTU, forming and maintaining long-term partnership with business and social partners of RTU.

Main tasks

- Commercialization of knowledge and promotion of RTU products on the market;
- Establishing of a network of mentors at the faculties;
- Qualification advancement in the marketing of services;
- Commercialization process support service;
- Development of cooperation between universities, especially within the framework of the consortium of Latvian technological universities and other higher education institutions;
- Analysis of the real estate market and attraction of tenants;
- Attraction of investors for the development of RTU real estate.

Drawn up commercialization applications

ortus.rtu.lv/science/lv/innovations/search



Cooperation with Municipalities and Companies

The cooperation strategy has been developed and cooperation agreements have been signed with local governments of Cēsis, Ogre, Dobele, Daugavpils, Valmiera, Madona, Liepāja, Bauska, Ventspils, and other towns. A number of projects have been implemented jointly with the cooperation partners.

On May 24 2018, student teams of RTU Faculty of Architecture (AF) and the Faculty of Civil Engineering (FCE) presented their vision for the development of Suntaži Civil Parish. The authors of the developed vision – the representatives of the local governments of Ogre Region and Suntaži Civil Parish – participated in the event.

Groups of the first year students of the AF Master program developed the landscape development vision of the center of Suntaži Civil Parish, whereas the fourth year students of the FCE Bachelor program “Transport Structures” offered various solutions for the development of Suntaži transport node.

The work on the project started in February 2018, when students and the representatives of the faculties went on a study trip to Suntaži to get familiarized with the project area.

In the course of the project, there were two cross-checks, where ideas and experience could be exchanged. This, in its turn, promoted cooperation between the faculties.

The AF projects were developed within the study course “Regional Landscape Architecture”. The work was monitored by the AF lecturer Ieva Miķelsone, a research assistant Alisa Koroļova and FCE Professor Atis Zariņš.

Contractual Works

- for Ltd Vides Serviss amounting to EUR 10,000;
- for Ltd LatrosTrans amounting to EUR 7,200.

Popularizing the Research Results

Tech Industry 2018

During the annual exhibition in mechanical engineering, metal processing, automation, electronics and new technologies "Tech Industry 2018" one could see the achievements of RTU scientists – research, products and prototypes, which have already been introduced or are being created in cooperation with the companies.

The RTU stand presented the results of RTU research conducted in cooperation with the European Organization for Nuclear Research (CERN) within the ARIES (Accelerator Research and Innovation for European Science and Society) project. The aim of this project is to find new solutions and concepts for the development of the Large Hadron Collider, and 40 researches from 18 countries working at this project. The RTU Institute of Technical Physics of the Faculty of Materials Science and Applied Chemistry is creating a laser technology to reduce energy losses in the collider, whereas the researchers of RTU Faculty of Power and Electrical Engineering, jointly with their colleagues from Germany, are designing an electron beam modulator in order to be able to operate normally in radiation conditions with the Large Hadron Collider, as currently it is problematic.

The stand also presented the latest ARIES activity – the "Proof of Concept" project, coordinated by the RTU Center of High Energy Physics and Accelerator Technologies, whose task is to test an innovative method for cleaning ship discharge gases by using a linear particle accelerator at Riga Shipyard.

EBCC Model

EBCC Model is a model for cooperation among educational institutions, entrepreneurship and municipalities in the development of creative European engineering education. The objective of the project is to develop a model for cooperation between universities, industry and local governments and the guidelines for its implementation.

In the course of the project, more than 1,115 respondents (academics, students, entrepreneurs, municipal representatives) have been polled to determine the role of the skills needed by an engineer in line with the current development trends in technologies and the labor market.

Respondents from Greece, France, Germany, Belgium, Latvia, etc. have participated in the survey.

Rental of Real Estate

- Real estate rental offers for short-term and long-term leases are drafted and published on the RTU website;
- A new real estate rental procedure has been developed and approved;
- Information on real estate objects offered for lease is drafted and placed on the RTU webpage (<https://www.rtu.lv/lv/universitate/telpu-noma/ilgtermina-noma>);
- Different possible cooperation partners in the field of real estate development are informed about RTU properties;
- More than 50 times RTU properties were presented to potential tenants;
- A financial estimate for the construction of a new university hotel in Ķīpsala has been developed;
- Cooperation offers are received regarding long-term lease of the facilities at Skolas iela 11, Indriķa iela 8a, Laimdotas iela 1a, Burtnieku iela 1a and Lomonosova iela 1/1;
- The area of free premises (not including the completely vacated buildings) has decreased considerably.

C. RTU Design Factory

RTU Design Factory is an innovation and entrepreneurship platform with the best-equipped prototyping workshop in the Baltics and a team of highly qualified experts providing support to entrepreneurs, researchers and students in developing innovative ideas, high value added products and engineering solutions.

RTU Design Factory offers:

- product and concept design development services;
- prototyping;
- R&D or research and development;
- entrepreneurship support programs.

A team of engineers and product designers of RTU Design Factory has accrued experience in the development of a wide variety of products, prototypes and high added value solutions. When required within the specific product development projects, additional experts or RTU researchers in the respective areas are also invited. In 2018, the services were provided to 52 companies, of which eight were long-term cooperation projects (contractual works).

“theLAB” Workshop Is Opened

“theLAB” is an open-type workshop established under the patronage of RTU Design Factory, where students, employees and scientists have an opportunity to materialize their inventions by using technological capabilities provided by 3D printing, laser cutting and gradation, plotting, large-format printing and other auxiliary tools. 13 trainees work at the trainees’ program of “theLAB”, whereas 22 students participate in different study programmes of “theLAB”. About 400 students used 3D printers and 450 – laser-cutting opportunities. In total, in 2018, the equipment available at “theLAB” was used by more than 1,000 people. In 2018, a branch of “theLAB” was also opened at RTU Faculty of Engineering Economics and Management.

Entrepreneurship Support Programs

RTU Design Factory supports both the entrepreneurs who have already defined their product and target markets and the authors of new ideas who need support in setting up a team and making the first steps.

EIT Climate-KIC Hub Latvia

“EIT Climate-KIC Hub Latvia” of the RTU Design Factory manages the programmes of climate knowledge and innovation community “Climate-KIC” of the European Institute of Innovation & Technology (EIT) in Latvia, as RTU has been a partner of “Climate-KIC” since 2016. These programmes are implemented in two areas – for entrepreneurship support and education.

“EIT Climate-KIC Accelerator Latvia” is an accelerator of green technology companies, where companies can access a wide range of contacts, educational opportunities, intensive mentoring and financial support of up to EUR 50,000. In 2018, 7 startups were supported by “EIT Climate-KIC Accelerator Latvia”, by attracting investments in the amount of EUR 399,600. Alongside with “EIT Climate-KIC Accelerator Latvia”, RTU Design Factory implemented also the “EIT Climate-KIC” pre-incubation programme “Greenhouse”, having supported six teams. In total, teams received support in the amount of EUR 122,400.

RTU Design Factory also offers an opportunity to develop one’s own business idea and participate in the Europe’s largest competition for clean-tech business ideas “ClimateLaunchpad”. Seven teams

used this opportunity in 2018. Students had a chance to apply for the “Journey” programme implemented by EIT and the mobility programme “Pioneers into Practice”, focusing on climate change mitigation. 40 young people participated in the “Journey” summer school, whereas 11 young professionals participated in the “Pioneers into Practice”. At the end of the year, RTU Design Factory organized the “Copernicus Hackathon and Climathon Riga 2018”, where 82 participants searched for solutions to use satellite data to manage the city in a climate-friendly way. In total, in 2018, participants of different programmes were provided support to the amount of EUR 22,000.

Demola Latvia

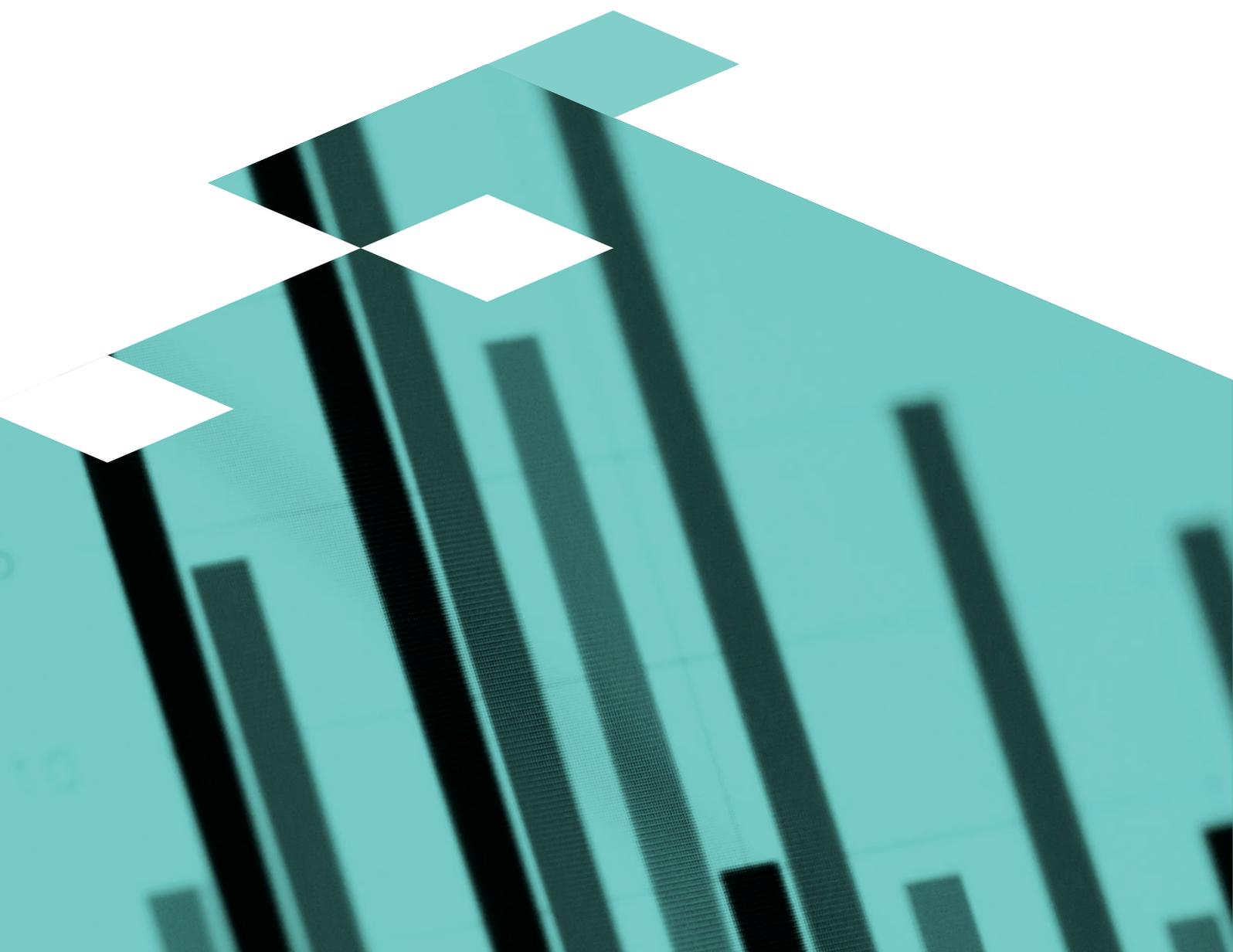
“Demola Latvia” is a cooperation platform for students, entrepreneurs and universities, which is implemented by RTU in cooperation with the University of Latvia and the Investment and Development Agency of Latvia (LIAA). Within “Demola Latvia” project, during three seasons, 39 case studies were offered by 32 companies and institutions, including Inbox.lv, Bite, KPMG, SEB Banka, Riga International Airport, Lattelecom, Latvijas Dzelzceļš, Swedbank, Amserv Motors, etc. The companies purchased 17 out of the developed solutions, having paid EUR 28,000 to the students for the performed work. The solutions were searched for by international and interdisciplinary teams uniting 195 students from more than 15 higher education institutions of Latvia. In total, 525 student applications were received during three seasons.

RTU “ideaLAB”

The business pre-incubator RTU “ideaLAB” provides the participants with an opportunity to develop and test their business idea at the initial stage, prior to putting it to life. The programme is implemented for nine months, including two-day training, several coaching sessions, lectures on the business model, financial and legal consultations, and technical support of the Design Factory. There is also a possibility to obtain financial support. At the end of the programme, participants have the opportunity to continue developing their ideas at one of the next step programmes, due to cooperation with Climate-KIC and other support instruments. In 2018, 94 applications were received and 59 participants were accepted to 22 teams. 22 mentors from different fields were working with young entrepreneurs, having provided 321 consultation hours in total.

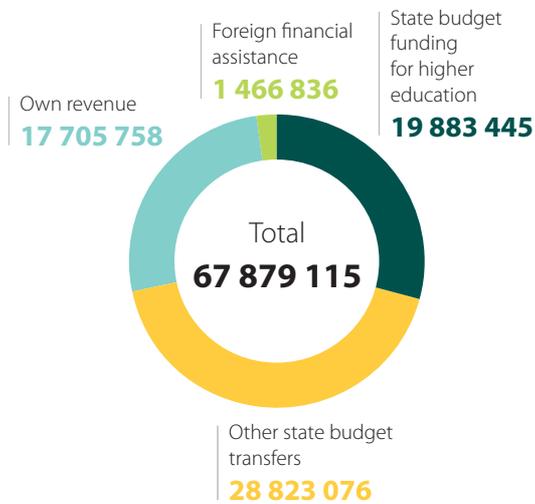
12

Finances



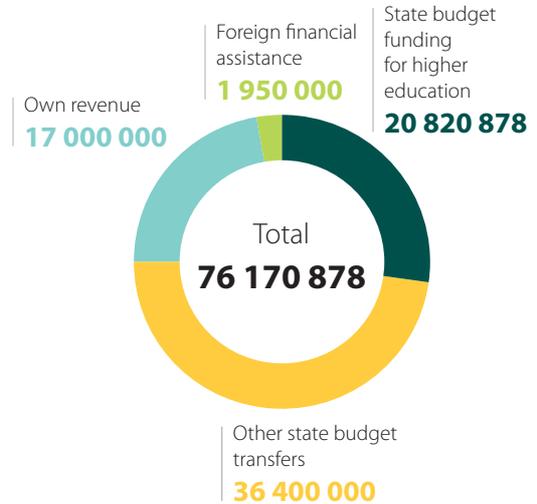
Budget in 2018

Revenue in 2018, EUR

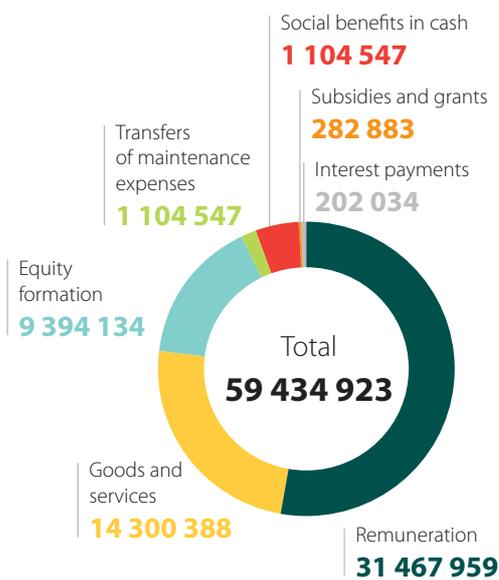


Planned Budget in 2019

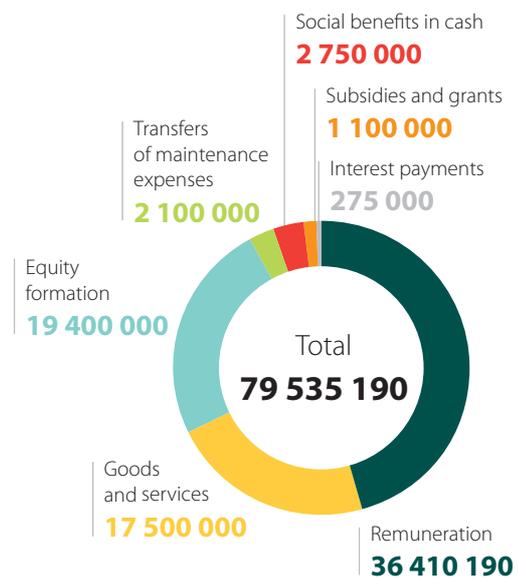
Planned Revenue in 2019, EUR



Expenses in 2018, EUR

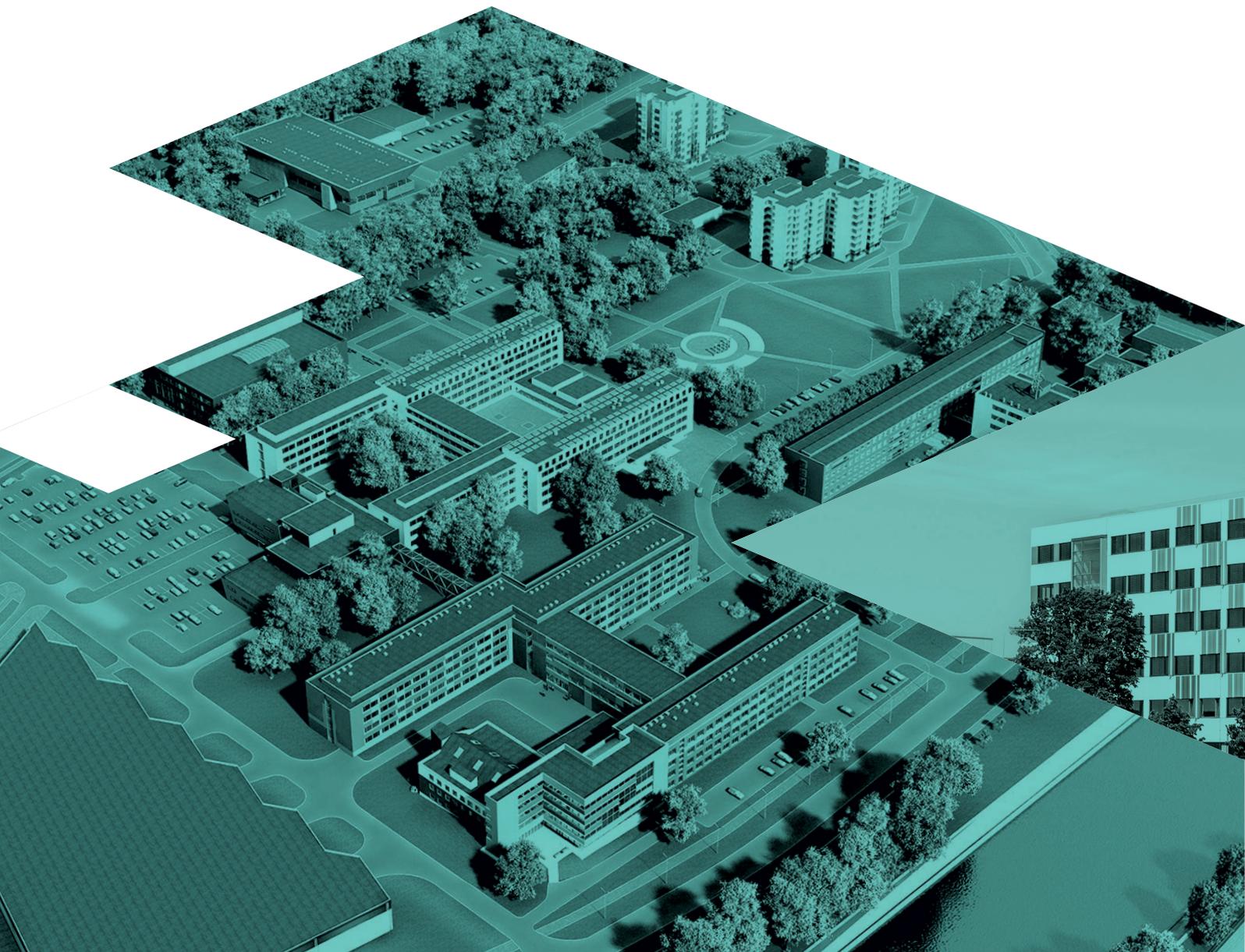


Planned Expenses in 2019, EUR



13

Development of RTU Campus in Ķīpsala



Planned investments in 2017-2021

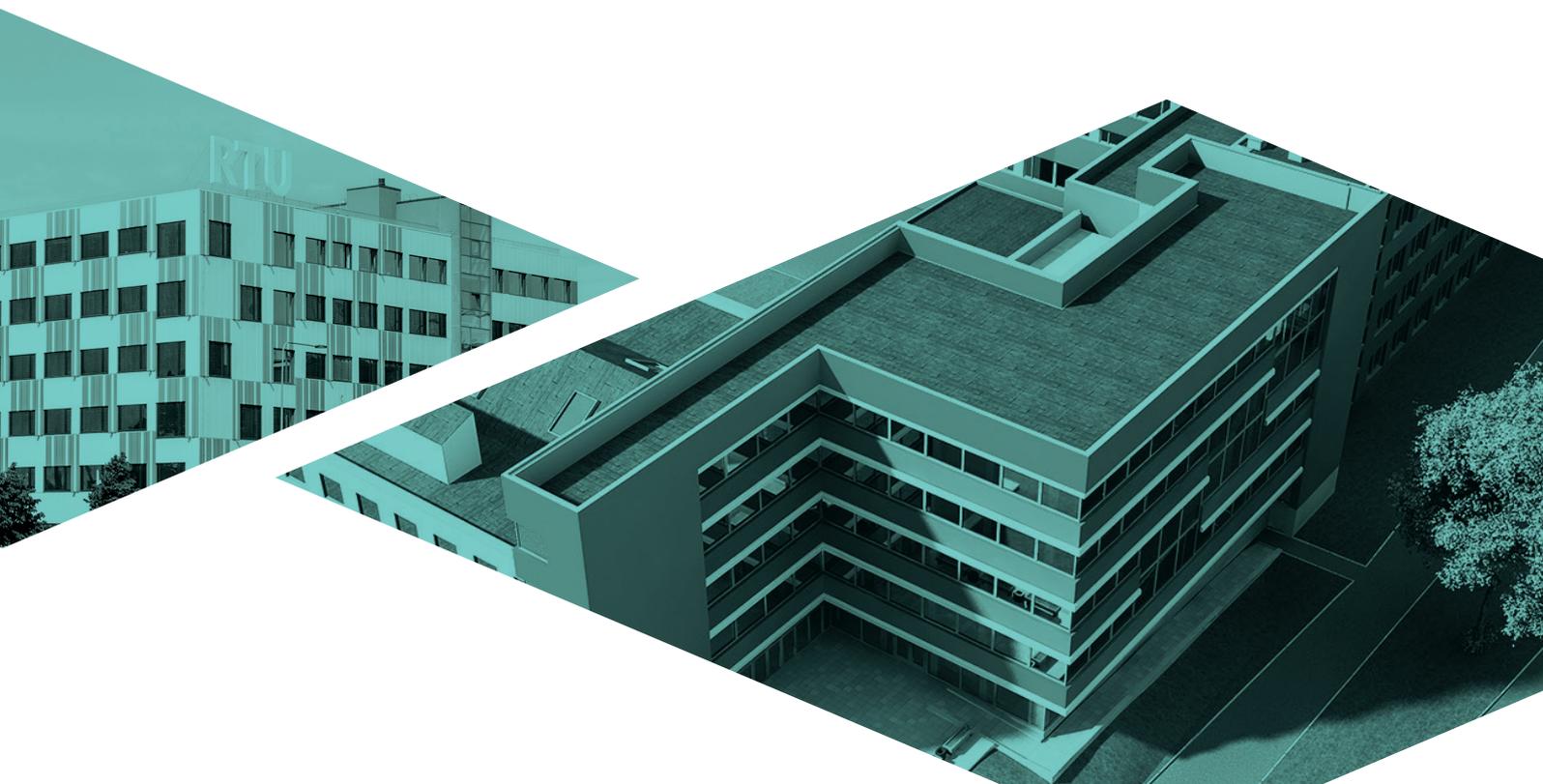
In order to improve the infrastructure of RTU as a higher education institution capable to implement a modern study process, it is necessary:

- to build a modern building to house a research unit of the Faculty of Computer Science and Information Technology in Ķīpsala to comprehensively implement the development and study process of the research platform "Information and Communication";
- to reconstruct the building at 6A Ķīpsalas Street, where the Faculty of Civil Engineering (FCE) is currently located and which in the future will be part of the Engineering and Intelligent Technology Centre;
- to reconstruct the building at 6B Ķīpsalas Street in order to relocate the Faculty of Mechanical Engineering, Transport and Aeronautics (FMETA) to Kipsala and fully implement the research platforms "Transport", "Cities and Development", "Materials, Processes and Technologies" and promote the study process.

By modernizing the infrastructure, RTU will ensure the territorial concentration of the academic and research work base in Ķīpsala.

Through ERDF funding for 2017-2021, RTU will continue working towards the next phase in the further development of RTU. A number of projects are currently being implemented in synergy:

- "Development of the infrastructure of Riga Technical University to modernize STEM study programs";
- "Development of Riga Technical University Engineering and Smart Technology Centre infrastructure in smart specialization areas";
- "Increase of energy efficiency of Engineering and Intelligent Technology Centre, Riga Technical University, at 6B Ķīpsalas Street, Riga".



The Faculty of Mechanical Engineering, Transport and Aeronautics at 6B Ķīpsalas Street

In 2017, the reconstruction of the building at 6B Ķīpsalas Street was launched to accommodate FMETA in spring 2019. The interior design of the building has been modified during the reconstruction process, while maintaining the passageways and the location of the stairways. All engineering communications have been changed. In order to increase the useful space of the premises, the areas of the technical shafts once constructed have been reduced. Another floor has been built on the lower part of the building, leveling the height of the two connected buildings and providing additional area for lecture-rooms and space for the research staff. The windows have been changed, selecting triple-glazed-windows, as well as the facade and the roof have been renovated and insulated, thus significantly improving the thermal performance of the building.

The Faculty of Civil Engineering at 6A Ķīpsalas Street

In the building of the Faculty of Civil Engineering (FCE) at 6A Ķīpsalas Street, which will also house the Engineering and Smart Technology Centre after the renovation, it is planned to modernize the premises and adapt the engineering communications to the requirements of the faculty. The reconstruction work is scheduled to start in summer 2019.

The redevelopment project is intended to change the internal design of the building by maintaining the passageways and the location of the stairways. All old engineering communications will be replaced. In order to increase the useful space of the premises, the areas of the technical shafts once constructed will be reduced. Another floor will be built on the lower part of the building, leveling the height of the two connected buildings and getting additional area for lecture-rooms and space for the research staff. It is intended to replace the windows by selecting triple-glazed-windows and to renovate and insulate the facade and the roof, significantly improving the overall thermal performance of the building. In the redevelopment project, it is planned to build a new air recovery ventilation system to manage the building's engineering communications and maintain a comfortable microclimate. A building management system will be constructed; to prevent unnecessary warming of the premises during the warm period of the year, sunscreen surges will be installed on the south front. The building will meet the latest fire safety standards applied to public buildings.



Development of Science and Innovation Centre (SIC)

The Science and Innovation Centre is to be integrated in the building at 6A Kipsalas Street, where the Faculty of Civil Engineering is located. A construction project is currently being developed.

The development of the Science and Innovation Centre will provide students with much wider opportunities to engage in science and various research projects, while scientists will have greater opportunities to transfer their knowledge, experience and skills to the students. Emphasis is placed on higher-level (Master and Doctorate) studies, research and innovation as well as on the activities in the education and research service market. Such centers of excellence and innovation act as generators making a significant contribution to the international competitiveness of the country.

New building of the Faculty of Computer Science and Information Technology

Continuing the concentration of RTU in the campus in Kİpsala, an educational building for the Faculty of Computer Science and Information Technology (CSITF) is envisaged, a research unit within the Engineering and Smart Technology Centre at 10 Zunda Krastmala, including the construction of a center of the joint-use lecture-rooms. The development of the construction project for the new building is ongoing, so the construction of the new educational building can start in autumn 2019.



14

International Cooperation



Promoting and implementing international institutional cooperation is one of the cornerstones of RTU Development Strategy. RTU participates in the international organizations and alliances, its academic and scientific cooperation is being pursued based on the vast network of partner higher education institutions in the world, the mobility of students and teaching staff is promoted, providing extensive exchange of experience and enabling active participation in global scientific centers.

Technical Higher Education Institutions of the Baltic States are admitted to NORDTEK

RTU, Tallinn University of Technology, Kaunas University of Technology and Vilnius Gediminas Technical University have been admitted to the Nordic Technical Universities consortium "Network of the Rectors and Deans of the Technical Universities" (NORDTEK). The admission took place during the NORDTEK conference "Changes in Globalization – Challenges and Opportunities for Nordic/Baltic Higher Education and Research Policy", which took place at RTU in June 2018.

Closer integration and cooperation of the Baltic technical universities with Nordic universities are another proof that the education of engineers at RTU is compatible with that obtained in the Scandinavian countries. Joining the network facilitates student mobility between the Baltic and Nordic countries and enables exchange of the latest methodologies and practices in higher education in the Nordic countries.

a. Erasmus+

In academic year 2017/2018, RTU had 355 Erasmus+ program cooperation agreements with the European national universities.

Germany (53 contracts), France (36), Poland and Italy (22) are at the forefront in terms of the number of agreements.

In academic year 2017/2018, within the framework of Erasmus+ project the following exchange trips were organized to the European countries:

- 147 study mobility trips,
- 125 internship mobility trips,
- 213 staff mobility trips.

There is a growing number of internship mobility trips performed by RTU graduates during the year after they graduated. In academic year 2017/2018, 51 RTU graduates went to undertake internship upon graduation.

Participation of foreign students in Erasmus+ mobility is also increasing. In 2017/2018, 104 RTU students with foreign citizenship participated in Erasmus + project for mobility to the European countries.

The most popular destination countries among RTU students for study mobility trips include Germany (23), Czech Republic (23), Lithuania (13), and Spain (10).

Most popular countries for internship are Estonia (17), Germany (13), Turkey (11), and Spain (10). The most popular mobility countries among the employees of RTU include Germany (34), Lithuania (23), and Spain (18).

b. International Events

International Week

From May 28 to June 1, RTU organized the 7th International Week, which became the platform for the representatives of the universities from 21 countries dealing with international cooperation and financial administration to discuss good practices and challenges in internationalization, budgeting and application of funds. 53 representatives of 43 universities participated in the International Week, and both the number of members and the number of universities represented were the greatest assembled by RTU International Week.

The representatives of the International Cooperation and Foreign Students Department of RTU led a seminar where the issues related to the application, implementation and administration of Erasmus+ projects as well as topical issues related to internationalization of universities were discussed. At the same time, the staff of the Office of the Vice-Rector for Finance led a seminar where financial experts from the universities represented in the International Week shared experience on project finance management.

The International Week is an important step in establishing new contacts and strengthening existing partnerships. During this event, new cooperation agreements are initiated, which are later successfully used by RTU students, academic staff and employees.

The spouse of the head of the Japanese government visits RTU

During the visit of the Japanese Prime Minister Shinzo Abe to Latvia on January 13 2018, his spouse Akie Abe visited the campus of RTU in Ķīpsala and got acquainted with the opportunities offered by RTU Design Factory and watched the demonstration of Sumo Boy, the robot constructor created at RTU.

Closer cooperation between RTU and Japan was started fifteen years ago. Currently, RTU has general cooperation agreements with three Japanese universities – Shizuoka University, Kobe University and Kindai University. So far, the closest cooperation has been developed with Shizuoka University – the signed cooperation agreement envisages double-degree recognition programme, it has resulted in exchange of students and academic staff as well as cooperation in scientific research work and organization of scientific conferences. In the field of scientific research, researchers from RTU and the University of Japan have mainly cooperated in the field of materials science.

At the beginning of 2018, RTU and Kumamoto University discussed the possibilities for cooperation in student exchange and establishing short-term courses for the Japanese students at RTU.

c. International Summer Schools

“International Relations and Globalization”

From July 9 to 23, RTU hosted 33 participants from Russia to complement their knowledge in English and Spanish, social innovation, intercultural communication and international relations.

The summer school for the students from the Russian partnership university is organized for the fifth time, and this year the participants had the opportunity to gain a deeper understanding of the activities of various Latvian state and municipal institutions. For example, the members of the internship program visited Riga City Council, the Ministry of Foreign Affairs of the Republic of Latvia, and the Freeport of Riga Authority.

“Cultural Shock and Social Innovation”

From July 9 to 23, RTU organized a summer school called “Cultural Shock and Social Innovation”, whose scientific programme was custom designed specifically for 30 students from RTU partner school in France – Graduate School of Computer Science EPITA.

Organizing this summer school, RTU adapted the scientific content of the event to the study profile of the participants at the request of the partner higher education institution. Students developed projects using their expertise in computer science in such areas as cultural change, urban social ecosystems, sustainable and social entrepreneurship.

Alongside with the lectures and visits to "Draugiem Group" and "DATI Group", discussion evenings for students were organized where they discussed ideas and issues related to their projects together with the representatives of RTU.

"Robotics. Real-Life Applications of Intelligent Design"

From July 2 to 27, RTU organized an international summer school, which united 27 students from 10 countries – Australia, the USA, Mexico, Kazakhstan, China, Moldova, India, Uzbekistan, Ukraine, Azerbaijan and France, who had an opportunity to develop practical and theoretical knowledge in robotics, 3D modelling, artificial intelligence and other sectors related to the field.

The students of "Robo Camp" summer school used the opportunities offered by RTU Design Factory's Laboratory "the LAB" and "Latvenergo" creative laboratory – 3D printing, laser cutting, soldering, etc.

2. MEGA (Building Capacity by Implementing mhGAP Mobile Intervention in SADC Countries)
3. TIC CRUZ DEL SUR (Use of ICT for Integral Management of Internationalization in Latin America)

- RTU activities within Erasmus+ programme have been extended and, in cooperation with six high-level European engineering universities from France, Ireland, Spain, Germany, Bulgaria and Romania, a project application for the European University Initiative has been developed and submitted.

RTU Joins the Magna Charta Universitatum

RTU has become a member of the Magna Charta Universitatum. The formal signing of the Charter took place on September 18 2018 in Spain, the University of Salamanca. On behalf of RTU, the Charter was signed by Artūrs Zeps, RTU Vice-Rector for Development. The accession to the Charter attests that RTU is an international university based on the European values, seeking greater integration of research and study process, with a greater emphasis on the inclusion of strategic values in the RTU activities and on international cooperation.

d. International Cooperation

- In 2018, RTU actively continued working at the projects of Erasmus + KA107 programme (Higher Education and Staff Mobility between Program and Partner Countries), adding three new countries to the list of countries of cooperation: Argentina, Montenegro and Nicaragua.
- Three Erasmus+ KA2 (Capacity Building in Higher Education) capacity building projects have been launched:
 1. EXTEND (Excellence in Engineering Education through Teacher Training and New Pedagogic Approaches in Russia and Tajikistan)

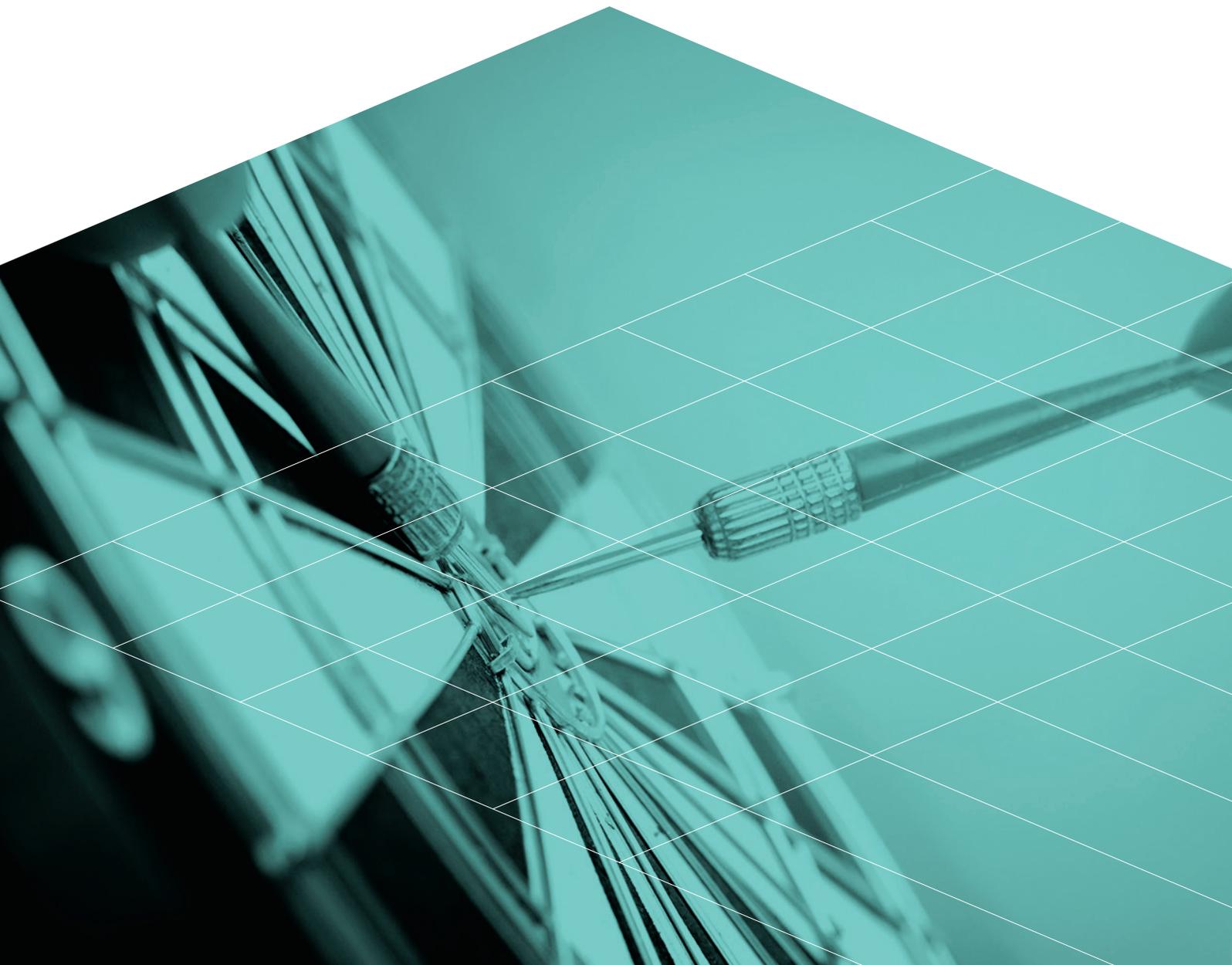
e. Associations

RTU is a member of major higher education associations:

- European University Association – EUA
- European Society for Engineering Education – SEFI
- Conference of European Schools for Advanced Engineering Education – CESAER
- Association for International Educators – NAFA
- Asia Pacific Association for International Education – APAIE
- Baltic Sea Region university consortium for Science and Technology – BALTECH
- Baltic University Program – BUP
- Baltic Sea Region University network – BSRUN
- University Industry Innovation Network – UIIN

15

Achievements



RTU – Higher Education Institution Most Recommended by Employers

In 2018, for the seventh consecutive year, RTU gained the title of employers' most recommended higher education institution in a survey organized by the Latvian Employers' Confederation (LDDK) in cooperation with the career and education portal prakse.lv. It is a clear indication that engineers and high-tech specialists are needed in the labor market and that they are best prepared for professional life by RTU.

Approximately one fourth among the first 100 employer-advised study programmes in the survey is constituted by the programmes implemented by RTU. The study programmes "Computer Systems" and "Civil Engineering" have been ranked among the top five. RTU is the only university that can be proud of two programmes that have entered the top five. Among the most commonly recommended study programmes there are also "Information Technology", "Power and Electrical Engineering", "Engineering Technology, Mechanics and Mechanical Engineering", "Logistics and Supply Chain Management", "Chemistry" and "Architecture".

Employers' assessment is the most important criterion because they know best what is needed in the labor market, and when they work with RTU graduates, they appreciate their knowledge acquired at the university. However, RTU not only follows the demands of the labor market, but due to its scientific potential, which creates new technologies and knowledge, it also creates new professions and, consequently, the new labor market.

The list of the study programmes and educational establishments recommended by employers has been drawn up for seven years. The aim is to promote a well-considered choice of further education and career by the primary and secondary education school graduates, taking into account employers' opinions.

a. Ratings

International ratings enable RTU to assess progress according to internationally defined criteria and to compare itself with other higher education institutions in Latvia and in the world. Based on the ratings, it is possible to draw conclusions and set new objectives for the sustainable growth and development of the study process, scientific activities and the whole university.

«Times Higher Education World University Rankings» 2019

RTU is ranked among the 801-1000 best universities in the world and among the 300 best in collaboration with the industry. The ranking of cooperation with the industry is estimated according to the revenue the university has generated from knowledge transfer. Compared with the previous year, RTU's rating has climbed significantly in four of the top five rating benchmarks. Overall, the rating includes 1,250 of the world's best education institutions.

«Times Higher Education BRICS & Emerging Economies University Rankings» 2019

RTU has significantly climbed in the university ranking of the new economy countries created by "Times Higher Education", taking 196th place and having become the highest ranked Latvian university. The ranking has been made for the sixth time; it considers 442 universities from 43 emerging economies.

«QS World University Rankings» 2019

RTU was ranked 751-800 in "QS World University Rankings", and this is the highest assessment of the three universities of Latvia included in the rating. RTU reputation among employers and the share of foreign students were rated highest. The ranking included 1000 universities from 85 countries.

«QS University Rankings: EECA»

RTU was ranked 57th in QS Emerging Europe and Central Asia Ranking. This year, the ranking has included a total of 300 leading universities in the region. At the regional level, the reputation of RTU among employers and the level of internationalization, reaching a high share of foreign academic staff and students, have been highly evaluated.

«QS Graduate Employability Rankings» 2019

In QS Graduate Employability Rankings, RTU holds 301-500th place in the university group. The rating reflects the status of higher-education graduates in the labor market and what their careers are like after graduating from higher education institutions.

«QS Stars» 2018

RTU has received an excellent assessment – five stars – of the international “QS Stars” university ranking. The five-star system evaluates the university performance in eight categories and RTU has scored five stars in six of them. The performance of RTU has been assessed with five stars in the following categories: quality of studies, graduate employment, internationalization, study environment, innovation, and social responsibility.

«UI GreenMetric World University Ranking» 2018

In the global ranking of green policy and sustainability in the conditions of growing competition, RTU holds the 128th position. Compared with 2017, RTU has climbed 20 places and has shown the best results among the Latvian higher education institutions. In total, 719 universities from 81 countries participated in the 2018 ranking.

«U-Multirank» 2018

In the “U-Multirank” rating system, which uses a letter rating system (A to E) to compare university performance, in 2018 RTU received the highest – A-rating for graduate employment, bachelor’s programmes in English, spin-off companies created

by RTU, post-doctoral participation in the academic staff and creativity in science. RTU received level B or the second highest rating in eight criteria thus showing the best performance among 15 Latvian higher education institutions included in the rating.

Business and Management Education Provided by RTU Receives High Ratings

In 2018, for the third consecutive year, RTU Faculty of Engineering Economics and Management (FEEM) and Riga Business School (RBS) were included in the 4 Palmes League of the international “Eduniversal Business Schools Ranking”. This rank is ascribed to advanced academic institutions, characterized by excellent quality and significant international influence in business and management education.

Compared with the previous year, in 2018, FEEM and RBS gained wider international recognition that can be seen in the reputation vote by rectors and deans of 1,000 best universities and business schools.

The International Universities and Business Schools Ranking covers the best higher education institutions that provide business and management education. 200 business schools with excellent evaluation and a significant international influence are included in the 4 Palmes League of the ranking. Overall ranking consists of 5 Palmes Leagues.

Business and Management Master Study Programmes also among the World’s Best

Already for the fifth time Master study programmes of RTU Faculty of Engineering Economics and Management (FEEM) and Riga Business School (RBS) gained excellent evaluation in the prestigious international Master study programme rating “Eduniversal Best Masters Ranking 2018”.

1,000 best educational institutions from 154 countries are included in the “Eduniversal Business Schools Ranking” of the universities and business schools. 4,000 Masters and MBA programmes in various majors are ranked both in global and regional ratings on the basis of alumni and employer surveys, as well as based on the assessment of the study programmes.

b. Achievements

Platinum Category in “Sustainability Index 2018”

In 2018, RTU for the first time was included in the highest category – Platinum Category – of the Sustainability Index of the Latvian enterprises. RTU has achieved such a high level, because it has set sustainability as a priority in its development strategy and is purposefully implementing it on a daily basis, encouraging green lifestyle and providing scientific contribution to the development of environmentally friendly technologies. RTU has been participating in the Sustainability Index assessment for the sixth consecutive year, purposefully improving its results. Sustainability Index is a strategic management tool that helps Latvian enterprises to establish the level of sustainability and corporate responsibility, while providing the public, state and non-governmental organizations with objective criteria to praise and support the most forward-looking and responsible companies in Latvia.

“Family-Friendly Enterprise”

RTU implements family-friendly policies on a daily basis as assessed by the Ministry of Welfare that granted RTU the status of a Family-Friendly Enterprise for the third consecutive year. The status of the “Family-Friendly Enterprise” is granted by the Ministry of Welfare to promote family values in the Latvian society and improve the living and working environment suitable for families.

Children Get to Know their Parents’ Workplace – RTU

On June 1 2018 – the International Children’s Day – children and grandchildren of more than 70 RTU employees got to know their parents’ and grandparents’ workplace, as well as learned what RTU and engineering are, and why engineering is important. A variety of exploratory and entertaining activities were prepared for the children: lessons at the RTU faculties and laboratories.

RTU held the event “Children at Work” for the third successive year. In 2017, the event gathered 51 children, and in 2018 – 75. The Amigo initiative “For Happy Families” has been organizing the

event “Children at Work” in Latvia for many years, participating in the creation of family-friendly work culture, helping enterprises to encourage employee loyalty, and giving children the opportunity to get acquainted with their parents’ occupation and workplace.

RTU Engineering High School Rated is the Best Small School of Latvia for the Third Successive Year

For the third consecutive year Engineering High School (EHS) of RTU won the first place in the small schools ranking conducted by Atis Kronvalds Foundation and kept the challenge prize “Great Owl” for another year. The schools in the ranking are evaluated on the basis of students’ performance in different study subject contests, and the group of small schools includes secondary schools, where the number of students in grades 10 to 12th does not exceed 100.

In 2018, RTU EHS gained 115.67 points in the ranking among small schools, showing significantly better results than the nearest competitors. Riga Cathedral Choir School was ranked second with 30.24 points, and Zemgale Secondary School with 28.29 points was ranked third.

The evaluation of EHS at the national level can be regarded as very high because EHS demonstrated the second highest performance, assessing both rating groups together. The greatest number of points – 143.84 – were scored by Riga State Gymnasium No 1 that was awarded “Great Owl” in the group of large schools, where the number of students in grades 10 to 12th is at least a 100.

RTU Engineering High School Enters the Star Rating of Latvia’s Schools

RTU Engineering High School (EHS) was ranked third in the Star Rating of Latvia’s schools created by Atis Kronvalds Foundation. The rating was created by assessing the annual performance of students in international academic contests during the period from June 1 2017 to June 1 2018. The first place in the rating is taken by Riga State Gymnasium No 1, the second – by Jelgava Spīdola Grammar School.

RTU Engineering High School is Named the Best in the School Rating by the “Neatkarīgā Rīta Avīze” Newspaper

RTU EHS has been recognized as the best school in the School Rating drawn by the newspaper “Neatkarīgā Rīta Avīze”, beating the top’s long-time leader – Riga State Gymnasium No 1. Creating the top of schools the newspaper takes into account the results of the centralized examinations in the 12th grade, in particular – the evaluations received at state examinations in the academic year of 2017/2018.

The students of RTU EHS study exact sciences in depth, but the results of the centralized examinations of 2018 among the 12th grade students show that high evaluations are obtained not only in sciences but also in languages. The knowledge of EHS students in all examinations has been evaluated with an average of 82.35%. Riga State Gymnasium No 1 demonstrated a very close result (81.28%).

RTU Scientific Library Overnight Reading Room Recognized as the Achievement of the Year by the Library Association of Latvia

The innovation introduced by RTU Scientific Library – the opening of the reading room for students 24/7 has become an important milestone in the life of Latvian librarian community. The daring of RTU Scientific Library to introduce the new system in spring of 2018 was praised by the Library Association of Latvia, which recognized it by presenting the Award of the Year in the category “Achievement of the Year in Latvian Libraries”. The innovation of RTU Scientific Library is unique because the 24/7 reading room operates in the building that does not have security staff and where all responsibility for the order, cleanliness and safety is taken by the students themselves.

Achievements of RTU Students

Professor Ivars Strautmanis Award

In December 2018, a graduate of RTU Faculty of Architecture Luīze Marta Aizpurva became the winner of Professor Ivars Strautmanis Latvian Regional Architectural Award. In her Master Thesis, she explored public catering buildings built in the Modern Movement style in Latvia in the 1960s and considered solutions for the restoration of the restaurant “Pilskalns”.

Since 2013, I. Strautmanis (1932-2017) Latvian Regional Architectural Award is adjudged annually to one graduate of the Faculty of Architecture in order to promote the overall harmony of the Latvian urban and rural environment development and encourage future architects to carefully consider the proposed range of techniques developing both planning and formal architectural solutions for the Latvian urban and rural environment development.

Patron Guntis Bole Award

In December 2018, a graduate of the Faculty of Architecture (FA) Agnija Pastare and a student of the Faculty of Civil Engineering (FCE) Raimonds Bogdanovičs received the Award of the Latvian-born civil engineer Guntis Bole (1934-2018). It is granted annually to one FA and one FCE student, evaluating their academic performance, professional extra-curricular activities, and the professional quality of the developed graduation paper. G. Bole Award is not only an honor for the students, it is also a stimulus to continue developing professionally and achieve ever higher goals.

RTU Student Wins Student Scientific Paper Contest of the Council of European Geodetic Surveyors

Rūdolfs Mellēns, the 5th year student of the Professional Bachelor Study Programme “Geomatics” of RTU Faculty of Civil Engineering won the Student Scientific Paper Contest of the Council of European Geodetic Surveyors. His paper “The Use of Combined Methods for Precise Topographic Data Acquisition” was recognized as the best in the Geodesy and Topography category.

RTU Student Teams Awarded at Pneumobile Competition in Hungary

In May 2018, RTU student teams "Riga Airmobile" and "Riga Fresh" received awards at the international race of student constructed pneumobiles "XI International Aventics Pneumobile Competition", which took place in Hungary. "Riga Airmobile" three-wheel pneumobile was ranked the 2nd in the long-distance race, setting a new Latvian record, while "Riga Fresh" four-wheel pneumobile won the 2nd place in the arcade race and the 3rd place in the acceleration race. 36 student teams from various European countries participated in the competition.

Spaghetti Bridge Record

Students' team of RTU Faculty of Civil Engineering "Bridge IT", uniting Helmutis Zālītis, Lauris Lūgbans, and Lauris Lodītis, won the second place in the World Championship in Spaghetti Bridge Building "RECCS 2018" in Hungary. In the load application test, spaghetti bridge created by the team held the load of 401.4 kg, the team's overall performance was also awarded the special innovation prize. The team won the right to represent Latvia in the European Championship, winning Baltic Spaghetti Bridge Building Competition "STiKS 9" organized by the Student Council of RTU Faculty of Mechanical Engineering, Transport and Aeronautics in collaboration with RTU Student Parliament.

RTU Students Receive "Latvian Design Award"

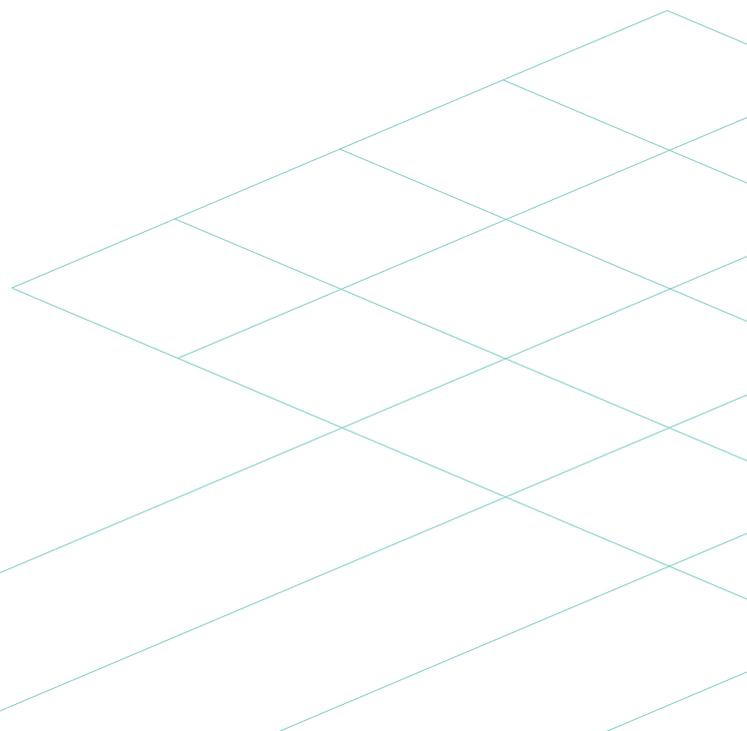
Ieva Kreile and Santa Pikuma, students of the professional Bachelor study program "Material Technology and Design" of Institute of Design Technologies (IDT) of RTU Faculty of Materials Science and Applied Chemistry, won the "Latvian Design Award 2018" in the university work category "Product Design" awarded by the Latvian Designers' Association. Ieva Kreile won the 1st place with a collection of dishes, and Santa Pikuma won the 3rd place with a multifunctional cot. The awards were presented during the international exhibition "Design Isle 2018".

Latvian and Polish Teams Win in Wafer Tower Design Competition

The team from Poland "PWR team", consisting of Jarek Opalaa, Magdalena Mihilewicz and Paula Makowska, stole the show in the category "Supreme Tower" creating a 2-meter high tower in the framework of the design competition "Wafer Engineer 9" organized by the Student Council of RTU Faculty of Civil Engineering (FCE). While in the category "Design object" the winner was RTU student team "Ulmaņlaiku inženieri", consisting of Kārlis Reinis Ulmanis, Sabīne Ščegoļeva and Agnija Cirvele. Latvian cultural heritage was their design theme.

Team "K-1" Continues to be the Leader in Paper Bridge Construction Competition

Just like in the previous year, team "K-1" was awarded the first place in the paper bridge construction competition organized by the Student Council of the Faculty of Civil Engineering, and the bridge constructed by them managed to hold the load of 118 kilograms. The team consisted of RTU students Emīls Drejers, Agita Driča and Armins Galdiņš. Paper bridge construction competition in 2018 was held for the fifth time, and this time it was visited by the historically largest number of teams – 70.



c. Awards

RTU, celebrating its 156th birthday, traditionally praised the best scientists for both contribution to science and commercialization of the developed technologies and products.

Scientists of the Year 2018

- The honorary title "RTU Scientist of the Year 2018" was awarded to Jānis Ločs, a leading researcher of RTU Faculty of Materials Science and Applied Chemistry (FMSAC).
- The honorary title "RTU Young Female Scientist of the Year 2018" was awarded to FMSAC researcher Arita Dubņika.
- The honorary title "RTU Young Scientist of the Year 2018" was awarded to Andis Supe, a leading researcher of the Faculty of Electronics and Telecommunications.



Materiālzinātnes un
lietišķās ķīmijas
fakultātes
VADOŠAIS PĒTNIEKS

Jānis Ločs



Materiālzinātnes un
lietišķās ķīmijas
fakultātes
PĒTNIECE

Arita Dubņika



Elektronikas un
telekomunikāciju
fakultātes
VADOŠAIS PĒTNIEKS

Andis Supe

Annual Valorization Award

In order to evaluate significant activities in valorization – commercialization of the products developed at the university and promotion, patenting, and launch of results of applied research, and their use in establishing new enterprises – the Annual Valorization Award was presented in 2018 for the second time.

Head of the Institute of Environmental Protection and Heating Systems, Faculty of Power and Electrical Engineering of RTU, Professor Dr. habil. sc. ing. Dagnija Blumberga was awarded the "Annual Valorization Award 2018".

In 2018, a new nomination – "Annual Student Valorization Award 2018" – was established. It was presented to a researcher of the Institute of Organic Chemistry of RTU Faculty of Materials Science and Applied Chemistry Mg. sc. ing. Uldis Peipiņš.

RTU Rector Received Award for Contribution to the Education Sector

RTU Rector, Academician Leonīds Ribickis has received the World Cultural Council (WCC) award for his contribution to promotion of education. Rector of the City University of Hong Kong, Professor Way Kuo and Rector of Leiden University, Professor Carel Stolker have also been honored with the award.

The Educational Merit Award is granted for the contribution to the education sector and promotion and adoption of the values of the World Cultural Council. The WCC Award Ceremony took place on November 8 at the City University of Hong Kong.

RTU Rector Receives Certificate of Recognition from the Minister of Defense

Before the country's centenary celebrations in November 2018, the Minister of Defense of the Republic of Latvia Raimonds Bergmanis presented the Certificate of Recognition of the Ministry of Defense to RTU Rector, Academician Leonīds Ribickis, thanking him for fruitful cooperation and support while contributing to the Latvian national defense and security.

RTU Scientists Receive Awards from the Latvian Academy of Sciences

The researchers of Riga Technical University have received the "Annual Science Prize 2018" from the Latvian Academy of Sciences.

Associate Professor of the Faculty of Materials Science and Applied Chemistry Andris Šutka together with a team of researchers from the Functional Materials Technology Research Laboratory and the Institute of Technical Physics received an award for their research on triboelectric nanogenerator development.

The book by Professor of the Faculty of Architecture Jānis Krastiņš "Art Nouveau Architecture in Latvia" was recognized as one of the achievements of 2018 in the theoretical science.

Professor Ainārs Paeglītis Receives the Cross of Recognition

Professor Ainārs Paeglītis, Director of the Institute of Transport Infrastructure Engineering and the Head of the Department of Roads and Bridges of RTU Faculty of Civil Engineering (FCE), before celebrating Latvia's centenary in November 2018 was awarded the Cross of Recognition, Third Class, and was appointed as Commander. This high state award was granted to Professor for his contribution to Latvia's sustainable development with a focus on roadway bridge design, research and service life extension issues.

RTU Scientist Juris Ķiploks Receives the Order of Viesturs

Celebrating Latvia's centenary, Captain Juris Ķiploks, Head of RTU Research Centre for Defense and Military Technologies, Chief of Intelligence Division of the Latvian National Guard Student Infantry Battalion, Head of National Guard Science, Research and Innovation Centre, was awarded the Order of Viesturs, Fifth Class and appointed a Bearer of the Order.

Awards for Research in the Energy Sector by the Latvian Academy of Sciences and JSC "Latvenergo"

RTU Scientist Pēteris Apse-Apsītis Receives Award for Significant Contribution to the Energy Sector

In December 2018, associate professor of the Institute of Industrial Electronics and Electrical Engineering of RTU Faculty of Power and Electrical Engineering Pēteris Apse-Apsītis was awarded Professor Alfrēds Vītols Prize for a significant contribution to the energy sector. The prize is awarded by the Latvian Academy of Sciences in cooperation with JSC "Latvenergo".

P. Apse-Apsītis is a great energy sector enthusiast, who has made a significant contribution to the development of the Latvian energy industry, notably by promoting the popularity of natural sciences and their image among the youth. He has worked in research and development departments of various companies in Latvia, US, Sweden and UK, took part in the development of more than 300 different industrial electrotechnological, automation equipment and ICT projects, including the projects commissioned by the Ministry of Defense, JSC "Sadales tīkls" and Rīga Stradiņš University.

Award for Significant Contribution to the Energy Sector

In December 2018, a leading researcher of the Institute of Industrial Electronics and Electrical Engineering of RTU Faculty of Power and Electrical Engineering Jānis Zaķis, who is also one of the authors of the textbook "Power Electronics", as well as Andris Šutka, a leading researcher of the Research Laboratory of Functional Materials Technologies of RTU Faculty of Materials Science and Applied Chemistry, who conducted studies on attaining alternative green energy related to functional materials, received the award for significant contribution to the energy sector.

Award for Achievements in the Energy Sector

In December 2018, the award for achievements in the energy sector for young scientists was presented to a leading researcher of the Institute of Silicate Materials of RTU Faculty of Materials Science and Applied Chemistry Līga Grase for her Doctoral Thesis "Phase Transitions in SnxSy Thin Films and Their Properties".

RTU Scientist Andris Šutka Receives International Award for Achievements in Science

A young scientist of RTU Faculty of Materials Science and Applied Chemistry Andris Šutka has received the prestigious TOYP (Ten Outstanding Young Persons) award for outstanding achievements in science. Since 1937, TOYP award has been given internationally to outstanding people aged 18–40, who have made a significant progress in their field.

A. Šutka is the founder of RTU Research Laboratory of Functional Materials Technologies and is one of the internationally most quoted young Latvian scientists. In 2017, an innovative material that allows discovering the electrostatic field with the naked eye was developed under the guidance of A. Šutka. In 2018, A. Šutka's study on energy acquisition using triboelectric nanogenerators was published in the leading professional scientific journal "Energy & Environmental Science".

RTU Professor Aivars Vilnis Krastiņš Receives the Highest Award of the State Revenue Service

In December 2018, Director of the International Business and Customs Institute of RTU Faculty of Engineering Economics and Management Professor Aivars Vilnis Krastiņš was awarded the State Revenue Service (SRS) First Degree Mark of Distinction for personal contribution to the development of the SRS, creating and strengthening the customs and taxation education system in Latvia.

International Business and Customs Institute, led by A. V. Krastiņš, also received the Certificate of Appreciation for long-term cooperation, contributing to the objectives of the SRS.

SRS Thanks RTU Professor Māris Jurušs

SRS expressed their gratitude to the associate professor of the Department of Taxes and Customs of RTU Faculty of Engineering Economics and Management Māris Jurušs for his participation in the excise duty gap methodology development and research on illegal movement of excise goods, which was conducted involving students, thus contributing to the objectives of the SRS.

RTU Professor Sandra Treija Receives Award for Contribution to Promotion of Architecture

Professor of RTU Faculty of Architecture Sandra Treija received an award in forum/contest "Woman in Architecture, Construction, Design" in the nomination "Woman as architecture commissioner or commission facilitator". This nomination is dedicated to the laureate who contributed to and inspired the commission and implementation of a qualitative architecture or has been active in the processes of public interest that promote high-quality architecture in the society.

RTU Scientist Aleksandrs Zajacs Receives Award from the Federation of European Heating, Ventilation and Air Conditioning Associations (REHVA)

A young scientist of the Faculty of Civil Engineering Aleksandrs Zajacs received the "REHVA Young Scientist Award" for his Doctoral Thesis "Assessment of Development Scenarios of District Heating Systems". In his Doctoral Thesis, he developed a methodology and district heating system planning tool that can be used by municipalities and heat supply system operators to assess the heating systems and increase their efficiency.

REHVA (Federation of European Heating, Ventilation and Air Conditioning Associations) is a leading European engineers association that brings together researchers and industry practitioners to develop building construction and communication networks technologies. Each year, the Federation awards professionals for their achievements in such categories as education, design and technology.

In 2018, A. Zajacs also received the Young Scientist Award from the Latvian Academy of Sciences and JSC "Latvijas Gāze" for his research on heating systems.

Academic Excellence Award of the Year

In 2018, for the first time RTU praised its best academic staff members.

Associate professor of the Faculty of Computer Science and Information Technology (FCSIT) Alla Anohina-Naumeica received "Academic Excellence Award 2018".

"The Honorary Title of Young Academic Staff Member 2018" was presented to the lecturer at the Faculty of Engineering Economics and Management (FEEM) Leonards Budņiks.

Three more members of the academic staff—FEEM Dean Elīna Gaile-Sarkane, FMSAC Professor Svetlana Čornaja and FCSIT Professor Inta Volodko – received development grants. Money prizes to the best members of the academic staff and the development grants were provided with the support of the company "Industry Service Partners" established by RTU graduate Aigars Ločmelis.

RTU Honorary Alumnus

The title of "RTU Honorary Alumnus" in 2018 was awarded to the Chairman of the Board of JSC "HansaMatrix" Ilmārs Osmanis for his long-term support to the engineering studies. He has founded and annually grants the "HansaMatrix" scholarship to undergraduate and graduate students, as well as promotes active cooperation with RTU in the electronics industry by offering students internships and research topics necessary for the industry.

Cabinet of Ministers Awards EHS Student and Teacher

In March 2018, a student RTU Engineering High School (EHS) Vladislavs Aščeulovs was awarded the Honor Diploma of the Cabinet of Ministers and the money prize for the obtained 3rd place in the International Chemistry Olympiad. RTU EHS chemistry teacher Laura Fjodorova was also awarded for the coaching of the students for the Olympiad.

Cabinet of Ministers award for the support rendered to the students was also granted to assistant professor of the Department of Chemical Technology of Biologically Active Compounds of RTU Faculty of Materials Science and Applied Chemistry Vitālijs Rjabovs. He was awarded for the coaching of the 1st year student of St. Catharine's College of Cambridge University Margarita Fomenko for the International Chemistry Olympiad.

16 Culture

In 2018, celebrating Latvia's centenary, RTU Culture Center organized a hundred events as a birthday greeting to the country.



Centennial Song and Dance Celebration

Members of eight RTU artistic groups joined the family of participants of XXVI Song and XVI Dance Celebration. From June 30 to July 8 2018 RTU groups women's choir "Delta", mixed choir "Vivere", men's choir "Gaudeamus", vocal ensemble "Jauna nianse", folk dance ensemble "Vector", brass band "SPO", student theatre "Kamertonis", and post-folk group "Daba San" took part in a variety of Song and Dance Celebration events.

Prior to that, in spring 2018, ringing in the Song and Dance Celebration, RTU folk art groups participated in the shows and competitions, achieving excellent results and obtaining the evaluation of the highest category.

Latvian Centenary Celebration

May 4

On May 4, Latvia's Independence Restoration Day, RTU women's choir "Delta" (conductor Inta Eizenberga-Cērmāne) continued the tradition of White Tablecloth Celebration and invited everyone to participate in the concert dedicated to the Independence Day. Tartu Academic Male Choir also took part in the concert.

November 18

- Ahead of the public holidays, on November 15 RTU artistic groups celebrated the country's centenary at the concert "Uzgavilēsim Latvijai" in the Great Hall of RTU. Choirs "Delta", "Gaudeamus", "Vivere", the choir of RTU Engineering High School, RTU student brass band "SPO", and RTU Big Band took part in the concert.
- On November 18, RTU male choir "Gaudeamus" (conductor Ivars Cinkuss) performed Latvian poem "Daugava" written by Rainis and Mārtiņš Brauns at Riga St. Peter's Church.
- On November 18, RTU mixed choir "Vivere" participated in the solemn event "18.11" – the multimedial story of freedom – near the Freedom Monument.
- On November 18, choir "Gaudeamus" together with other men's choirs under the lead of conductor Ivars Cinkuss performed people's favorite and popular Latvian songs at the concert "Daugav' abas malas" on the November 11 Embankment.

The Greatest Concerts

- As a tradition, in spring RTU post-folk group "Daba San" (conductor Inese Neimane) organized Latvian post-folklore festival "Gaviles". In honor of Latvia's centenary, choirs honored and sang the praise of the sun during the festival. An honorary guest of the event, a folklore researcher, the author of the book "Saules dainas" ("Latvian Sun Songs"), and ex-President Vaira Vīķe-Freiberga sent the introductory greeting to the festival "Gaviles".
- RTU mixed choir "Vivere" (conductor Gints Ceplenieks) during the concert dedicated to the country's centenary sang "Mazas un lielas dziesmas Latvijai".
- In December, RTU men's choir "Gaudeamus" (conductor Ivars Cinkuss) took part in the 57th Australian Latvian Arts Festival, which took place in Australian cities of Adelaide, Melbourne and Sydney.

Achievements

- Folk dance ensemble "Vector" received a laureate diploma in the contest "Riga Spring" by performing a new production – dance "Salniņa" led by the head of the artistic group, choreographer Dagmāra Bārbale.
- Folk dance ensemble "Vector" won the First Place and the Gold Medal in the International Dance Festival in Albania.

Premieres

In 2018, RTU student theatre "Spēle" (Game) showed two premieres.

- At the beginning of the year, in February, the viewers were welcome to enjoy the performance "Pašu audzināts" (Self-Raised) that was dedicated to the 170th birthday of the father of Latvian theatre Ādolfs Alunāns. Director – Kristīne Logina.
- Whereas in March, theatre "Spēle" for the first time staged "Īsa pamācība mīlēšanā" (Short Textbook on Love) by Rūdolfs Blaumanis, which became the introduction to Latvia Student Theatre Days that traditionally take place in March at RTU. In 2018, seven Latvian student and youth amateur theatres took part in the event.

Students Sing and Dance

In June, artistic groups of RTU participated in the traditional XVIII Baltic Students' Song and Dance Festival "Gaudeamus", which in 2018 took place in Estonia, Tartu.

17

Sport



RTU has meritoriously retained its title of the sportiest university. This is testified not only by the fact that students – members of varsity teams – take part in Latvian regional competitions, but also by their international achievements.

Our Own Olympian

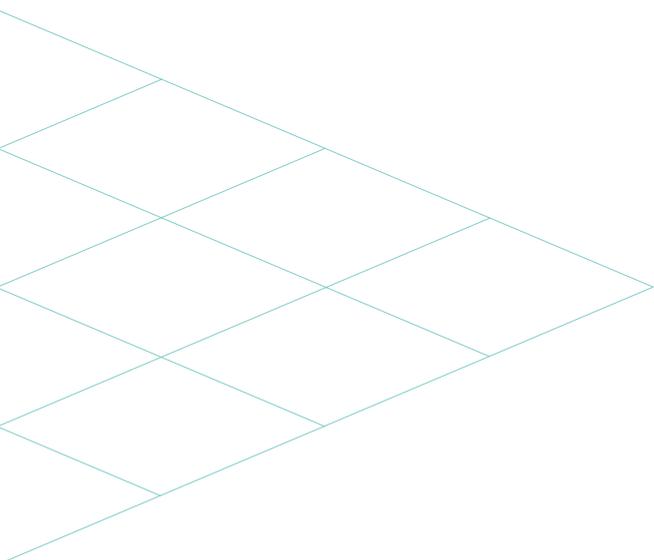
RTU has its own Olympian – the 2nd year student of the Faculty of Mechanical Engineering, Transport and Aeronautics, luger Artūrs Dārznieks, who under the Latvian national team participated in XXIII Winter Olympic Games that were held from February 9 to 25 in Pyeongchang, South Korea. Unfortunately, Artūrs did not manage to get into TOP 12 – he ranked 24th. However, almost a month later, in early March, Artūrs already became Latvian champion in luge.

Excellent Individual Achievements

- A student of RTU Faculty of Power and Electrical Engineering Patriks Gailums was recognized as the best track and field athlete of U20 group of 2017. For his achievements, RTU granted the young athlete a 300 EUR scholarship for his training camp.
- A student of RTU Faculty of Computer Science and Information Technologies Vladimirs Visockis has been included in the candidate list for the Latvian national volleyball team. V. Visockis plays in the volleyball team "RTU/Robežsardze", performing the setter's role on the pitch.
- A student of RTU Faculty of Power and Electrical Engineering Daumants Lūsa has acquired the title of the Latvian champion in the second round of the Summer Biathlon Latvian Championship.

Victories in the Baltics

- RTU athletes won the 3rd place in the "Baltic Cup of Athletics" among Estonian, Latvian and Lithuanian Technical Universities. Kaunas University of Technology became the winners of the competition, whereas Vilnius Gediminas Technical University won the 2nd place.
- RTU gained the 3rd place in the Sports Games of the academic personnel and employees of the Baltic technical universities, which took place in Tallinn where competitions in basketball, volleyball, tennis, table tennis, badminton, chess and fishing were held.
- RTU cheerleading team for the first time won the 1st place in a fierce battle in the international competition – "Estonian Cheerleading Championship 2018".



Achievements in XXVIII Latvian Universiade

RTU athletes in both men's and women's competition won the silver medal in the total standing in XXVI Latvian Universiade. The gold medal in 2018 went to the Latvian Academy of Sports Education, and bronze – to the Latvia University of Life Sciences and Technologies.

- RTU athletes landed an overwhelming victory at the Universiade kettlebell lifting of the classic combination. This was already the 28th victory in a row for the RTU team in the Universiade.
- RTU volleyball team was celebrated as the best in Universiade men's volleyball competition.
- RTU student team won the men's competition in the Universiade badminton tournament, where seven Latvian universities were represented.
- RTU teams in XXVI Latvian Universiade table tennis competition gained award-winning places. Women's team won the first place in the total standing, while the men's team – the second.
- RTU football team was ranked first in minifootball at the Universiade.

Accomplishments on the National Level

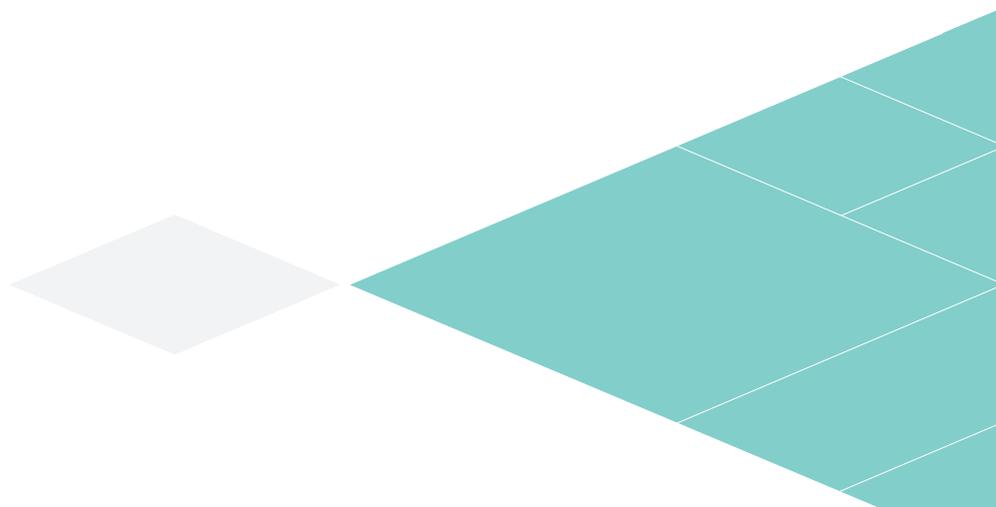
- RTU men's volleyball team "RTU/Robežsardze" after several years of triumph in 2018 won the silver medal in "Credit24" Latvian master league championship in volleyball. "Jēkabpils lūši" won gold for the first time, whereas "Biolars/Jelgava" won bronze.
- After a year-long break, in 2018, RTU chess team returned to the award-winning places by winning the 2nd place in the Latvian Team Chess Championship.

RTU Supports Sports Talents

15 talented athletes were chosen in the contest organized by RTU, and in the academic year of 2018/2019 they commenced their studies at RTU at the expense of university funds. All these athletes have demonstrated high achievements in both sports and studies.

Track and field athletes Matīss Velps and Asnāte Kalniņa, bobsledders Ralfs Bērziņš and Dāvis Kaufmanis, volleyball players Artūrs Zemnieks, Kristīna Križanovska, Natalija Samsonova and Vladislava Kozlova, basketball players Alekss Dāvids, Matīss Koļesinskis, and Rūdolfs Dolmanis-Dravants, hockey players Roberts Kaļķis, rock climbers Laura Dzalbe and orienteering athlete Andris Sarkšņā began their studies at RTU.

RTU has been granting special state budget funded positions to athletes for several years now, thus supporting young sports talents who can both study and do sports at the same time, achieving high results, on the basis of an individual plan.



RTU Students – Talented Athletes – Receive State Scholarships

Four RTU students – promising young athletes – have received state-funded Latvian Sports Federations Council scholarships in the academic year of 2018/2019.

Scholarships were granted to the students of the Faculty of Engineering Economics and Management bobsledders Ralfs Bērziņš and Dāvis Kaufmanis, a student of the Faculty of Power and Electrical Engineering javelin thrower Patriks Gailums, and a student of the Faculty of Civil Engineering table tennis player Viktorija Majorova.

Scholarships are granted in order to facilitate the opportunities of high-class studying athletes to combine studies with advancement of sports skills and to promote students' sport and encourage the coaching of the reserve for Latvian national teams.

Doing Sports Together

At the last weekend of May 2018, RTU staff gathered at the sports, seminar and recreation center "Roniši" to participate in the first RTU staff leisure activities festival. Teams of participants were able to try their hand at 13 different activities. The team of the Faculty of Power and Electrical Engineering won the first place in total standing in the competition of 11 teams, leaving behind the teams from the Faculty of Civil Engineering and the Faculty of Materials Science and Applied Chemistry, ranked 2nd and 3rd, respectively.



© **Riga Technical University, 2019**

RTU Department of Public Affairs

Design: Design Studio Teika; Paula Lore

Publicity images

RTU Yearbook 2018

ISBN 978-9934-22-332-7 (pdf)

ISBN 978-9934-22-331-0 (print)