ANNUAL REPORT

ON THE ACTIVITIES OF BRNO UNIVERSITY OF TECHNOLOGY IN 2022

BRNO UNIVERSITY OF TECHNOLOGY

The Annual Report on the Activities of Brno University of Technology in 2022 is submitted in accordance with Act No. 111/1998 Coll., on Higher Education.
It was prepared according to the framework curriculum on the activities of the university for 2022, issued by the Ministry of Education, Youth and Sports.
The document is divided into a textual and a tabular part, which has a fixed structure according to the framework curriculum. On the contrary, according to the instructions of the Ministry of Education, Youth and Sports, it is entirely the responsibility of the university and presents information beyond the required curriculum.

The Annual Report on Activities provides data and substantial results of all activities related to the activities of BUT in the framework of Czech and international higher education and offers the general public an overview of its significant scientific and research activities.

The Annual Report was approved by the BUT Academic Senate on June 29, 2023.

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1 Introduction

1.1 Rector's Introductory Word

Dear readers,

The Annual Report of our university, Brno University of Technology, for the year 2022 is now in your hands. In February of this year, a new team took over the leadership of our university, ready to build on the previous one and lead the university in the next term. The Annual Report is an opportunity to recall and, in particular, to evaluate the results achieved over the past period.

As the management of the university, we have set ourselves considerable goals and started the way toward their implementation. Right at the beginning, however, we had to face unexpected events. Hardly had we at least slightly recovered from the time of COVID, when we were surprised at the end of February 2022 by the news of Russian aggression against Ukraine. Convinced of the need to defend the values that underpin the democratic world, we have made considerable efforts to support the invaded country and to support our Ukrainian students and their families. However, we also stood up for our Russian and Belarusian students, even though we had to arrange, for example, what are considered critical study programmes. I think we can say with a clear conscience that we have fulfilled this obvious duty of support with honour. I would like to thank all the academic and non-academic staff of our university who did not hesitate to state their position, making an effort to contribute their activities and donations to support and help those in need in the struggle for freedom and democracy. I would also like to express my special thanks to our students who, through their initiative, volunteer work and active approach, have done a truly essential and irreplaceable part of the work in this support.

But the world did not stop. Completely the opposite. It was given a major jolt by this aggression. The delicate economic balance was upset, the energy crisis arrived and inflation took off. Some of the strategic blunders of the past have been exposed. Europe's independence from strategic energy resources has become a pressing issue. Security has started to be mentioned in all contexts. We have learned that democracy and freedom are not commonplace and can easily fail – not least due to tolerance of the intolerant, an unwillingness to disregard local and individual interests, or a lack of courage to defend moral principles, humanity and the principles of democracy. The way people think and the course of events have changed. It has shown how important it is to pay attention to the wider context and social events in any decision-making and management of institutions, how apparent and temporary local peace and tranquillity can be, and how important strategic management, critical thinking, foresight and risk awareness are.

We have become aware of how responsibility for our future, sustainability and quality of life on Earth connects us. The importance of a number of environmental and climate protection issues has increased. And all of these topics have become, among other things, a great challenge for our university, both in the field of education and research in the search for new technical solutions.

No European university today can do without self-reflection, without proactive reflection of societal needs, without disciplinary cooperation across the whole spectrum of disciplines, including social science, in order to find relevant and comprehensive solutions. Even technical universities can no longer persist in the illusion that solutions to social issues belong to others.

We have signed up to a number of European initiatives in the field of higher education and launched an extensive programme of involvement of our university in strategic national and international structures.

We have paid considerable attention to the nominations of our representatives to national bodies and grant agencies, especially in the field of research. In particular, we managed to promote a new member to the Government Council for Research, Development and Innovation – our Vice-Rector for Creative Activities. In the person of another Vice-Rector of our university – for external relations, we are represented on the RAO Council (Register of Artistic Outputs) at the Ministry of Education, Youth and Sports (MEYS). We have strengthened our representation in the CSF bodies by two representatives. We have also increased the number of our representatives in the bodies of the Technology Agency of the Czech Republic (TA CR) by two members. And so we will continue to seek and promote our representatives to the working committees and boards preparing grant programmes and calls. We also want to motivate more of our academic and research staff to actively participate and engage as evaluators in the evaluation committees of various providers.

We put emphasis on the internationalisation and presentation of our university in the Czech Republic and abroad.

We invited key representatives of MEYS to our university. In addition to the Minister of Education, we also welcomed his deputies to the University, especially the Deputy Minister for Universities, the Deputy Minister for Legislation and the Deputy Minister for Operational Programmes. The Minister for Science, Research and Innovation also accepted the

invitation to the University. At these meetings, we sought to create a space for our faculties and departments to discuss current higher education issues with these top government representatives. During the first months of our tenure, we, as BUT, became a member of the Association of Research Universities of the Czech Republic – a group of the largest Czech universities, which today have 75% of students, 80% of students in doctoral programmes, and which together show 75% of the scientific performance of all Czech universities, measured by publications in the 1st and 2nd quartile.

We have become an active member of the European University Alliance, EULIST, where we have partnerships with nine major universities across Europe. These alliances are now referred to in Europe as "European universities", seen as distributing excellence, and being knowledge think tanks. Among other things, we seek to develop strategic partnerships with the Vienna University of Technology (TU Wien) and other universities such as the University of Hannover (Leibniz Universität Hannover) in Germany and Lappeenranta-Lahti University of Technology in Finland. We regularly meet with the representatives of partner universities online or at personal meetings – in 2022 this was in Madrid. At the management level, through personal meetings, we have continued our historical partnership with the Technical University of Graz, which has been our partner since the very beginning of our university, as well as with the Technical University of Dresden, and developed partnership relations with universities in Slovakia – in particular with the Slovak University of Technology in Bratislava and the Technical University of Košice.

The Secretary General of the network of prestigious European research and technical universities CESAER accepted an invitation to our university to discuss the potential role of BUT in this network, in which the Czech Republic is represented by only two universities, BUT and CTU. We actively participated in the activities, including at the annual meeting of CESAER member universities at the Technical University of Dresden, where we presented our vision of the position and development of technical universities and technical education in the Czech Republic, Europe and the world. We were invited to present our ideas for the development of technical education at a meeting of European technical universities at TU Wien.

We actively participated in the Days of Educational Activities, a conference organised by MEYS, where we presented our view on professional study programmes and joined the discussion on the quality of education. We also participated in the CZEDUCON conference organised by MEYS as part of the Czech Presidency of the Council of the European Union. The conference focused on trends and approaches to higher education management in the EHEA (European Higher Education Area), where forms of international cooperation between universities, the role of European university alliances and topics such as credit compatibility of studies, ECTS and "microcredentials", professional education, criteria for international evaluation of universities and others were discussed.

We have focused on the parameters that we show in international rankings, which are the basis for the evaluation of our university, especially the QS (Quacquarelli Symonds), Times Higher Education (THE) and the Academic Ranking of World Universities (ARWU) rankings. We held a meeting with representatives of the THE ranking in Brno with the aim of identifying critical parameters that we should pay attention to. In line with this analysis, we have already taken measures to improve the identified parameters for the upcoming evaluation.

We have engaged in a national and international debate about the role of technical education in the Czech Republic and in Europe facing the same decline in interest in technical studies. Among other things, we are also signatories to the Agreement on Reforming Research Assessment in Europe (ARRA) and members of the European Coalition for Advancing Research Assessment (CoARA). At the national level, in addition to active participation in the forthcoming modification and completion of the methodology for the evaluation of research results, we have begun to promote the idea of strengthening the evaluation of applied research as a social priority, since it is applied research that brings technical solutions reflecting current social needs.

We also paid attention to cooperation with industry. Meetings were held with chambers of commerce and individual strategic industrial partners. In addition to the Regional Chamber of Commerce in Brno, we held discussions with the American Chamber of Commerce and its member companies to discuss the needs, roles, and collaboration between our university, industry, and the application sphere. In these relationships, we seek to set up a mutually beneficial model of cooperation in both research, contractual and effective collaboration, and education. At the same time, a system was set up for regular meetings with industrial partners. Particular attention was paid to setting up a new model of knowledge transfer at our university with the aim of streamlining the care of intellectual property,

its valuation, etc. We have taken steps to liberalise the system of entrepreneurship at the university by simplifying the conditions for the creation and incubation of start-ups and spin-offs and by providing more active methodological support. In this sense, we put emphasis on strengthening cooperation with the South Moravian Innovation Centre and the South Moravian Region, but also with technology parks in the immediate vicinity of the university. An integral part of this plan is the continuation of the student competition "Let's do business!" and the creation of conditions to promote entrepreneurship among our students.

We have strengthened our cooperation with the City of Brno, where we have become members of expert groups to support the search for technical solutions for, for example, urban energy, electromobility and hydrogen technologies. We have signed memoranda of cooperation with the city in these areas. We have expanded our cooperation with other public institutions such as Brno hospitals, especially the University Hospital Brno, the St. Anne's University Hospital and the Masaryk Memorial Cancer Institute in the field of technology as well as in the field of art, architecture and design. We have signed a memorandum with the Czech Antarctic Foundation and become a technology partner of the Antarctic Research Programme.

We also focus on cooperation with other Brno universities. In addition to meetings of rectors and vice-rectors in various areas, there was, for example, a joint meeting of the management of our university and Masaryk University. We coordinate closely in professional cooperation, for example, with the University of Defence.

Within the framework of the Czech Presidency of the Council of the European Union 2022 and in cooperation with the Brno Observatory and Planetarium and the Brno Space Cluster, we organised the SpaceWeek Brno 2022 international conference on space education and research under the auspices of the Faculty of Mechanical Engineering and the Faculty of Electrical Engineering and Communication. We are committed to the socially current topic of environmental responsibility, especially thanks to the international conference of the Faculty of Civil Engineering and the environmentally responsible approach to building reconstruction within the concept of DNSH (Do No Significant Harm) and nZEB (Nearly Zero Energy Buildings). We consistently apply these approaches in our university's capital investment. Once again, as part of the Czech Presidency of the Council of the EU, we organised the European Conference on Cybersecurity Research in Cyberspace under the auspices of the Faculty of Information Technology and the Faculty of Electrical Engineering and Communication in cooperation with the Ministry of the Interior and NÚKIB (the National Cyber and Information Security Agency). We also actively participated in the ICRI European conference on large infrastructures organised under the auspices of the European Commission in Brno and hosted by Masaryk University as part of the Czech Presidency of the Council of the EU.

Last but not least, the initiative supported by several important visits from Taiwan in 2022, coordinated by CzechInvest and the Ministry of Industry and Trade, aimed at developing cooperation in the field of semiconductor technology and chip development, should be highlighted. With this initiative, we have focused more on strengthening teaching and research in microelectronics and semiconductor technologies. These steps resulted, among other things, in the establishment of the Czech National Semiconductor Cluster. Furthermore, we have created the conditions for the development of promising new fields of education and research focused on space technologies and applications, environmentally friendly technologies, circular economy, electromobility and the already mentioned semiconductor technologies and chip development, in which we present ourselves as technological leaders.

We have opened up to broader partnerships with leading universities in the country. We have invited top representatives from our partner universities – especially from research and technical universities – to our Scientific Board to share quality standards. We have also taken the necessary steps to nominate members and establish an International Academic Council, which we will actively involve in the upcoming evaluation of research and doctoral studies at the university planned for 2023.

We have successfully passed the fourth evaluation of the European University Association, which we believe will help us in our self-reflection. We have embarked on organisational changes to the Rector's office and in the area of information services so that we can provide efficient quality support to our academic and research staff – administrative and methodological as well as information support – and free our university environment from unproductive activities burdening us with unnecessary bureaucracy. We have made significant progress in the digitalisation of our environment, particularly in the circulation of documents, with the introduction of an electronic order approval system with a view to the gradual digitalisation of all financial control.

We pay special attention to the project support system, knowledge transfer and marketing, where we have started developing these structures on the principles of a modern management approach, which we plan to complete this year. A new Arts, Design and Architecture Council has been established to ensure the care and development of the university's cultural, artistic and architectural heritage.

In the preparation of the 2023 budget, we have taken a more consistent approach to allocating normative resources on the basis of performance and quality. We have initiated

related negotiations on the introduction of a new specific quality indicator, according to which the budget should particularly subsidise the criteria on the basis of which the university is evaluated in international rankings. We have set excellence as a criterion for the university's competitiveness in both study and research areas, which we consider important to build systematically. We have taken measures to strengthen the strategic management of the university, faculties and higher education institutes. The budget for 2023 will be strengthened in our faculties and institutes by 50% of the funds obtained from the MEYS Programme for the support of the Strategic Management Support Programme (SMSP). These will be transferred to the faculties and institutes so that they can pursue their strategic objectives. At the same time, we have set up a system for evaluating these strategic objectives through evaluation meetings of the university management with individual management of the faculties and institutes.

It is important to highlight the many activities of our students coordinated by the Student Chamber of the BUT Academic Senate. We have to appreciate the enormous commitment and effort of the student representatives at BUT to actively participate in building the reputation of our university. As part of the Czech Presidency of the Council of the EU, our Student Chamber of the Academic Senate organised a national Conference of Academic Senators of Czech Universities at BUT under the auspices of the Council of Higher Education Institutions and the Association of Research Universities. Its main topic was, among other things, the forthcoming amendment to the Higher Education Act and the reform of doctoral studies. In November, representatives of our students were instrumental in organising the International General Assembly of the European Students' Union in Prague, again as one of the side events of the Czech Presidency, where the main part of the meeting was again focused on the reform of doctoral studies and its implementation in the Czech Republic. These events culminated in 2022 with the organisation of a celebration of the 30th anniversary of the Student Chamber of the Council of Higher Education Institutions, hosted by our University. Thanks to these student activities, along with the largest ball in the Czech Republic, which was organised in December by our students and alumni for more than 3,500 participants, our university received unprecedented attention in 2022 not only from partner universities, the Ministry of Education, other ministries and public and state authorities, but also from partners from industry and the application sphere. The visibility of our university has also been enhanced by other student events organised by students within our faculties. That is why I would like to highlight the activity and the results of the work of our students. Their interest in the university and their involvement in student activities and student representations at university, national and international level deserve our admiration and thanks. Through their activities they create a favourable image of our university.

At the beginning of January 2023, we concluded the series of successful presentations of our University with an appearance in the Education Committee of the Senate of the Czech Republic, which took place at the invitation of the Chairman of the Committee on Education, Science, Culture, Human Rights and Petitions at the Wallenstein Palace in Prague. At this presentation we introduced the senators to the profile of our university and more generally the vision of the role of technical universities in building the competitive potential of the national economy of the Czech Republic.

We are aware that all our achievements and projects are due to our people, without whose work many would just remain dreams. That is why we need to show them respect and make sure that the conditions for their work are as favourable as possible. We reflect the significant inflationary fall in real wages, particularly for our younger academic staff. We are aware of the need to systematically appeal to the Ministry of Education and the government to ensure that the current preference for funding towards regional education is balanced towards higher education, both in terms of salaries and the funding of the higher education sector in general. Being aware of inflation and unfavourable macroeconomic developments, we have analysed the options and prepared an adjustment to the Salary Policy to increase the tariff component of our employees' salaries by 15% from the second fiscal quarter in 2023.

We are a holder of the HR Award and in 2023 we will be applying for renewal of this recognition, which is, among other things, a mandatory condition to ensure our university's eligibility to participate in European and some national grant schemes. We have been making preparations for this throughout 2022. We are pleased to report that as of the date of this Annual Report, we already know the result – we have renewed our HR Award for another three years. In addition to the HR Award, another condition for our university's participation in projects is to ensure the conditions for gender equality and social security within the framework of the Gender Equality Plan. However, we do not want to blindly and formally apply mandatory settings and mechanisms in proceedings in general. We make sure that the necessary measures put as little burden as possible on our staff and that we create a favourable environment for the management and development of human resources at our university as a natural principle of care and attention to the needs of our employees.

We also consider social security to be an important topic. We have revised the Code of Ethics to set out the rules for desirable relationships between our employees and their relationship with the university, and in particular to set out principles of good practice in professional conduct, for example in research, in order to address some undesirable phenomena. We have also expanded the Ethics Committee to include student representatives. We have

begun preparations of a staffing strategy for the modern university, which should be completed by the end of 2023. With the Vienna University of Technology (TU Wien), we are preparing a meeting on HR strategy and HR management at the university, combined with a presentation by the TU Wien Vice-Rector for Human Resources, for appropriate settings at our university.

We are aware that the reputation of the university is determined, among other things, by its supra-university activities in fulfilling its social role. This is gaining importance, among other things, particularly in the context of sustainability, energy, economic and geopolitical situations. In addition to independent professional support for the public, we consider it important to develop lifelong learning for various target groups, including the University of the Third Age for our seniors and BUT Junior for our youngest – primary school students. We emphasise the key role of the university as a moral authority that promotes the principles of equal opportunities, gender equality and moral standards in modern democratic institutions.

We are a community of academic staff, students, researchers, professional and administrative staff who ensure the functioning of our university. I hope that in the upcoming years we will continue to work together to find constructive and effective solutions and to create an open culture based on trust, mutual support and cooperation.

In conclusion, I would like to thank all of our staff and students for the work they have done and the results they have achieved over the past year, and for the support we, the new university management, have received in this first year of our work. Our gratitude for their support also goes to our higher institutions, especially the Ministry of Education, and other state and regional institutions, especially the South Moravian Region and the City of Brno, grant providers, industrial partners, and especially to our partners cooperating on projects, as well as our suppliers. I would like to wish all of us a lot of strength to meet the new challenges that time and life will bring us.

Assoc. prof. Ing. Ladislav Janíček, Ph.D., MBA, LL.M.
Rector BUT

1.2 Significant Events at BUT in 2022

Events and social activities

On 26 January 2022, the President of the Czech Republic, Miloš Zeman, appointed **Ladislav Janíček as the new Rector of the Brno University of Technology**. On 26 October 2021, the Academic Senate of BUT elected him as Rector for the term of office from February 2022 to January 2026. His inauguration took place on 26 April 2022, during which he presented his vision and thanked everyone for their contribution to the university so far.

On 30 June 2022, Brno University of Technology joined the **Association of Research Universities** (AVU), whose aim is to bring together Czech universities that base their competitive advantage on cutting-edge research, thereby creating opportunities for the development of quality education. The Association of Research Universities strives to ensure that the Czech university sector competes with prestigious European and international universities.

▲ On 30 September 2022, the **Night of Scientists**, a traditional event aimed at young people, took place. Faculties and departments prepared attractive programmes, which was reflected in the record interest in this event.

FCH BUT participated in the organisation of the international conference **European Biotechnology Congress – Eurobiotech 2022** held in October 2022 under the auspices of the Rector of the Brno University of Technology. During this period, Prof. Ivana Márová, FCH, was also a member of the Executive Committee and representative of the Czech Republic in the European Biotechnology Thematic Network Association (EBTNA).

After three years of enforced hiatus due to the restrictions of the COVID-19 pandemic, the **FASTfest music festival** returned at the beginning of the winter semester and saw record attendance.

In October 2022, FFA co-organised the **HUMAIN conference** on design, humanities, arts and artificial intelligence. HUMAIN is a project, conference and platform opening, bringing together and connecting topics and experts in the fields of artificial intelligence, art, design and humanities. The project is a collaboration of theoreticians and practitioners from the FFA BUT and the Faculty of Arts of Masaryk University. The HUMAIN project, and the related conference, aimed to go against the established paths and to seek common narratives and points of contact between the fields of science and art. It is not concerned with terminological multiplication or interdisciplinary levelling.

In the autumn of 2022, an **exhibition of the FFA teacher Jan Ambrůz** took place at the Brno House of Arts. Jan Ambrůz is a prominent representative of contemporary non-figurative sculpture and the long-time head of the Sculpture Studio at FFA. The exhibition was accompanied by a monographic publication presenting Ambrůz's work from the mid-1980s to the present, including the Different Landscape project.

The Faculty of Business and Management at the Brno University of Technology has been **re-accredited by the Association of Chartered Certified Accountants** (ACCA) for the Bachelor's degree programme Accounting and Taxation and the Master's degree programme Accounting and Financial Management. Accreditation is granted for the period 1 January 2022 – 31 December 2026. On graduation from both degree programmes, the student is awarded a total of seven credits under the ACCA education system.

The **10th year of the International Branding project** took place at FBM. FBM is collaborating on this project with Tampere University of Applied Sciences (Finland), Windesheim University of Applied Sciences (The Netherlands), Stenden University of Applied Sciences (The Netherlands) and Karel de Grote University College (Belgium).

▲ As part of the Space for Engaged Architecture project, the Faculty of Architecture of Brno University of Technology organised the **exhibition Architecture as Work** at the Brno

Architecture Gallery. The exhibition and accompanying programme mapped the situation on the labour market, the position of the Czech Chamber of Architects and that of schools of architecture. Also as part of the Space for Engaged Architecture project, an exhibition by the Austrian collective Tracing Spaces called: Stop and go. Nodes of Transformation and Transition opened in 2022.

In the Czech-Polish border area in the Osoblaž region, on the site of the demolished village of Pelhřimovy, FA students created several distinctive wooden objects in the landscape. At the beginning of the summer holidays, a **Summer School Workshop** was held there, during which the participants turned their designs into reality.

▲ On 30 November, **Space Week 2022 Event Brno** brought together about a hundred guests. Among them there were representatives of domestic universities and foreign guests from universities, companies and the European Space Agency. The topic of discussion was research and education in space and space technology. The premises for the event were provided by the Brno Observatory and Planetarium, and the Faculty of Mechanical Engineering took over organisation of it under the auspices of BUT.

In September, for the 6th year, the Institute of Forensic Engineering BUT organised the **Crash Day** vehicle crash test event. In addition to the standard crash test of two moving passenger vehicles, low-speed tests were carried out, as well as crashes of vehicles into static obstacles, for example a 7.5 t truck crashing into a barrier. The collected data serve, not only as a basis for the implemented projects, but also for teaching students.

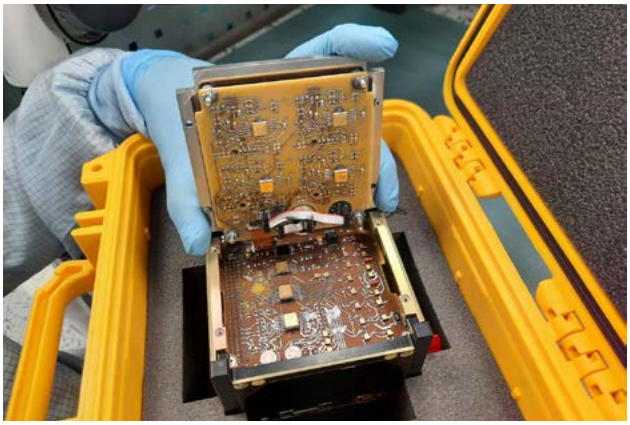
On 17–20 October, FBM held the **International Week 2022** event. A total of 18 lectures were given by foreign lecturers from partner universities in Austria, Germany, Great Britain, Morocco, Russia, Poland, Ukraine, Slovenia, Hungary, France and Mexico.

▲ Professor Jiří Jaromír Klemeš, who led the team of the Sustainable Process Integration Laboratory (SPIL for short) at the NETME Science Centre, was once again one of the most cited scientists in the world. The prestigious **Highly Cited Researchers** list for 2022 was published by Clarivate in November. Among the nearly 7,000 names from seventy countries, nine other Czech researchers are on the list along with Professor Klemeš. Prof. Klemeš appeared in the list for the third time, but he died in January 2023 after a serious illness. The faculty has thus lost one of its outstanding professors, whose scientific activity was a great contribution to the entire BUT.

▲ In nine months, BUT students managed to produce the **Dragon e2 electric race car**. It was publicly unveiled on 25 May 2022 at the Rollout event and competed in the Formula Student global engineering competition during the summer. In 2022, the young engineers from TU Brno Racing had to deal, in addition to anti-epidemic measures, with shortages in the supply of components, which made their work very complicated.

▲ Cyber security. This priority of the Czech EU Presidency was the main topic of the international scientific conference **European Conference on Security Research in Cyberspace** held on 12–14 September 2022. On the occasion of the Czech Presidency of the Council of the EU, it was jointly organised by the Brno University of Technology (FEEC and FIT), Masaryk University and the Ministry of the Interior of the Czech Republic. The main objective of the international conference was to deepen knowledge and share information and experience in the field of cyber security in the Czech Republic and worldwide. On the occasion of the conference, the Faculty of Electrical Engineering and Communication of BUT announced the launch of the first inter-faculty quantum link in the Czech Republic, which represents a significant generational leap in the field of cyber security.

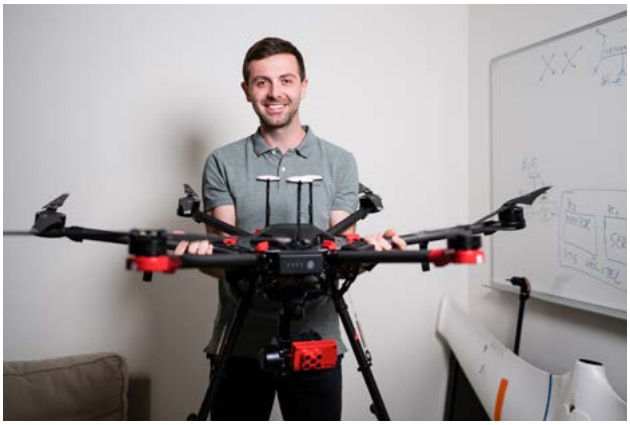
The traditional annual ExFoS (Expert Forensic Science) conference with international participation, organised by the Institute of Forensic Engineering, is intended primarily for forensic experts in technical and economic fields. The **ExFoS 2022 conference** took place on 27 and 28 January 2022. In spite of the limitations caused by the COVID-19 pandemic, it was attended by about 120 participants, including participants from abroad (Poland, Slovakia). In addition to the specialised sections, there was also a part dealing with general issues of expert activities, in which presentations were made by representatives of the Ministry of Justice, the Public Defender's Office and others. In addition to representatives from the academic staff, experts and specialists from practice also gave presentations in the specialist sections focused on accident analysis, engineering, construction and property valuation.



▲ At the beginning of April, SpaceX's Falcon 9 rocket launched the BDSat satellite of BD SENSORS, which was developed by scientists from the Department of Radio Electronics of FEEC BUT. The satellite initially worked as expected, but after a few weeks it fell silent due to a software glitch in its radio part. BD SENSORS therefore decided to send the second **nanosatellite BDSat-2** (the twelfth Czech satellite) into space on 3 January 2023. An hour after launch, the satellite was released into free space and shortly afterwards the first communication with it was successfully carried out. The satellite measures 10 × 10 × 10 centimetres and carries new technologies that will be tested directly in space: special pressure sensors and an alternative solar power system, the so-called supercapacitor bank.

▲ In the presence of the BUT Rector and FEEC Dean, the opening ceremony of the **Czech National Exhibition at the International Engineering Fair** took place. The exhibition also included exhibits from FEEC, which were created thanks to the long-term cooperation between the Department of Telecommunications of FEEC and the Ministry of Industry and Trade of the Czech Republic. There were several exhibitors who reflected the main theme of the International Engineering Fair, which was Industry 4.0 and the digital factory. The first exhibit was an automated robotic line that uses 5G mobile networks for communication. The second exhibit was an example of smart meters for remote reading and control.

▲ A team of FEEC scientists led by doc. Radim Burget has developed a **special bracelet that detects sleep disturbances** accompanied by restlessness, which are the first signs of Parkinson's disease, appearing up to 10 years before its visible manifestations. The development of the bracelet is **part of the European niCE-life project**, which aims to develop strategies and digital tools to improve healthcare for seniors and promote their inclusion in society. It focuses primarily on elderly people at risk of Alzheimer's or Parkinson's disease. The project responds to the challenges facing almost all European health systems: an ageing population and a higher incidence of neurodegenerative and chronic diseases.



▲ At the Department of Theoretical and Experimental Electrical Engineering of FEEC, Ph.D. student Jiří Janoušek is investigating whether it is possible to determine the **exact chemical composition of maize**, and when is the best time to harvest a crop, using images taken by a multispectral camera on a drone. Harvest results show that the proposed method is successful and increases yield. In the future, the Ph.D. student intends to apply this method to other agricultural crops.

In November, the Rector, the Vice-Rector for Internationalisation and the Dean of the Faculty of Information Technology met with representatives of the Finnish **Lappeenranta-Lahti University of Technology** (LUT). As part of the collaboration, the two universities signed an agreement for a new Double Degree programme. It is a joint study programme between FIT BUT and LUT. FIT students can take it as part of the Information Technology and Artificial Intelligence study programme. The unique combination of courses from both institutions aims to deepen students' knowledge, particularly in the areas of computer vision and image processing. The Double Degree programme was created on the basis of many years of successful cooperation between FIT and LUT.

Scientists from the Faculty of Information Technology of BUT, along with colleagues from the Faculty of Agronomy of Mendel University in Brno will participate in a European project to respond to major global changes in society. Most of the world's population is now moving to big cities and the question is how to feed these cities. The **Hungry EcoCities** project will last almost four years and has a budget of €2.8 million. One of its goals is to increase people's trust in digital technologies, which are increasingly being applied to agriculture and the food industry.

To offer psychotherapists systematic feedback on individual therapies and to improve the overall quality of psychotherapeutic care in the Czech Republic – this should be achieved by the **new DeePsy application** enabling automatic speech processing. Researchers from the BUT Speech@FIT group and their colleagues from Masaryk University are currently working on its development. The application should be completed in June next year.

On 16 December 2022, Brno University of Technology held a celebration of the **30th anniversary of the Student Chamber of the Council of Higher Education Institutions** (SK RVŠ), which defends the interests and opinions of university students and brings together their representatives from universities across the Czech Republic. The Student Chamber of the Council of Higher Education Institutions is part of the Council of Higher Education Institutions, which, along with the Czech Rectors' Conference, officially represents universities in our country. It strives for cooperation between students and teachers, dialogue with the government of the Czech Republic and public authorities, and the development of academic self-government.

Achievements and awards

The **TA CR Award** was given to the project Revitalisation of agricultural land in drought-prone areas of the Czech Republic. The project won the TA CR competition for the Czech Idea 2022 award in the category Society. The team of prof. Miloslav Pekař from the Institute of Physical and Applied Chemistry BUT collaborated on the project with the Faculty of Horticulture of Mendel University in Brno and OSEVA Development and Research Ltd. and Agricultural Research Ltd., Troubsko (ZVT).

The **Josef Hlávka Prize** for student work in the field of organic materials for bioelectronic technologies was awarded to Ing. Katsiaryna Arkhiptsava, a student of the study programme Chemistry, Technology and Properties of Materials.

▲ The new unified visual identity of Prague Integrated Transport won a prestigious award in the global **Red Dot Awards** competition. The new visual of Prague Integrated Transport (PID) was designed by the design studio superlative.works. The studio is composed of Petr Štěpán, Bohumil Vašák and Mikuláš Macháček, who work at the Faculty of Fine Arts of BUT. The trio succeeded in one of the world's largest design competitions with their modern and clean graphic design of the entire system and became a Red Dot Winner in the Corporate Design and Identity category.

The winner of the doctoral thesis competition **Construction of the South Moravian Region 2023** was Ing. Tomáš Žlebek, Ph.D., from FCE. The title of the thesis is Special Polymer Coatings and Skim Coatings Using Secondary Raw Materials.

The title of **Outstanding Diploma Thesis in 2022** of the Czech Concrete Society competition was awarded to the diploma thesis entitled Residential House in a Gap by Ing. Vojtěch Doupovec from FCE.

In the international student architecture competition **On the Way** (design of a motel for truck drivers in India), the main prize was awarded to Adriana Došková.

The **Jan Kotěra Award** for the preservation and presentation of the creative legacy of the important Czech architect Jan Kotěra was awarded in 2022 to Ladislav Jackson from the Department of Theories and History of Art at FFA, who published the monograph The Myth of the Architect – Jan Kotěra 150.

Nela Bártová, a student of the Sculpture Studio at FFA, received a nomination for the **Magnesia Litera** Award in the Debut of the Year category for the publication of her poem Na konci chodby je ráno (Bílý Vigvam), which was illustrated by Kateřina Šillerová from the Drawing and Graphic Design Studio at FFA.

Michal Mitro from the Intermedia Studio at FFA was selected as a finalist of the **Oskar Čepan Award 2022**. The jury selected five out of 57 artists to be presented in a joint exhibition at Kunsthalle Bratislava.

The Faculty of Architecture at BUT once again scored in the competition for **the best architectural diploma theses** organised by the Czech Chamber of Architects. Tatiana Uhríková won with the project she started to develop during her study internship in Ljubljana. Based on a fifty-year-old theory, she brought a new vitality to the inner courtyard, which will revitalise the now neglected neighbourhood with a contemporary solution and help the area in its further development.

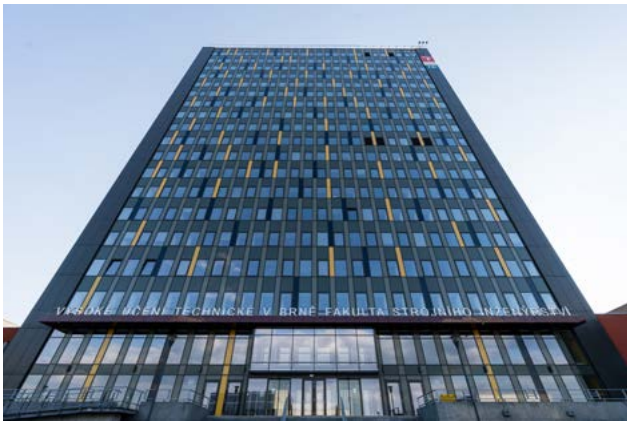
FA student Nela Vicanová won the **Ministry of Industry and Trade prize**. In her diploma thesis she dealt with the landscape associated with coal mining in the Karviná region and a proposal for its restoration.

FA doctoral students Filip Musálek and Linda Obršálová were awarded **first place in the architectural competition** The Front Space of the Holy Spirit Church in Ostrava.

▲ On 22 September 2022, South Moravian representatives elected Professor Miloslav Druckmüller from the Institute of Mathematics of FME as the **South Moravian Region's personality for his contribution in the field of science**. Miloslav Druckmüller is a world-renowned expert in the field of numerical methods for processing images of the solar corona obtained during total solar eclipses or by space

probes. He is also involved in science popularisation and teaching. He has long been rated by students as one of the best teachers and has won the BUT Best Teacher survey according to student ratings four times in a row. The life story of Miloslav Druckmüller was filmed under the title Helios and the premiere of the documentary took place in the Scala cinema in Brno on 20 January 2022. The screening was followed by a discussion with prof. Druckmüller, his colleague doc. Pavel Štarha and the film's producer Milan Kýr.

The sixth edition of the SVS FEM competition for **the best student Ansys** project was dominated by FME students who took the first three places. The competition focuses on solving any original problem in Ansys, Rocky DEM, ParticleWorks or custom code software. The winners are decided by the competition's scientific board, which consists of SVS FEM employees and external specialists. First place went to an FME student, Ondřej Pánek, the second to Jakub Dohnal. The imaginary bronze was awarded to Anežka Michálková, who also won an award in the Josef, Marie and Zdeňka Hlávek Foundation's competition.



▲ For the sixth time in a row, the Faculty of Mechanical Engineering at BUT has won the **School Recommended by Employers** competition. Representatives of more than 900 companies from all over the Czech Republic, including most major employers nationwide and in the regions, evaluated the faculties of universities in terms of their contribution to the labour market and the qualifications of graduates. The FME result also contributed to BUT ranking second highest among Czech universities.

Jakub Kůdela from the Institute of Automation and Computer Science at FME decided to point out a systemic error in his own field. The expert in optimisation models and algorithms noticed a fundamental problem in comparing and analysing evolutionary algorithms and discovered why even seemingly correct algorithms do not actually work as they should. An expert article on this topic was published in December 2022 by the prestigious journal from the Nature "family", namely **Nature Machine Intelligence**. The journal is a world leader in computer science and artificial intelligence.

▲ On 19 May 2022, the organisers awarded the **Werner von Siemens Prize 2021**. These are distributed annually among the best works, projects and personalities in the field of engineering and science in eight categories. Awards were also given for overcoming obstacles in studies, this time the award went to BUT's first deaf graduate, Tomáš Zbavitel. Despite his handicap, the student, deaf since birth, was the first in sign language to successfully pass the state final exam in Engineering Mechanics and defend his diploma thesis. Using neural networks, Tomáš Zbavitel has created a unique technical dictionary for the deaf that can be used to translate technical terms into sign language. Czech sign language interpreters Jitka Hořanská and Radka Kulichová from the Alfons Centre, who worked with Tomáš throughout his studies, received the title of Honorary Engineer from the FME Scientific Board.

Karolína Hájková was not deterred from her dream of helping animals even by the fact that, in her own words, "she doesn't have a talent for chemistry and biology". Instead, she discovered a talent for design, and while studying industrial design at FME, she also found a way to help four-legged patients through her work. In 2022, she won a silver medal in the **C-IDEA** international design competition for her design of a wheelchair for dogs.

A soldering station with a heated reballing template was one of five award-winning exhibits at **AMPER 2022**. The HSR-01 soldering station was presented at the FEEC stand by its co-author Alexandr Otáhal, head of the working group from the Department of Microelectronics. "An innovation is the use of the solder ball templates also as a heating element to ensure the reflow process without the need to manipulate the casing. The main advantages are the lower thermal load for the soldered electronic housing and the possibility of creating a more reliable soldered joint than the much more expensive laser soldering method," the competition organisers said in their justification.

▲ On 16 November 2022, university students who have demonstrated exceptional abilities and creative thinking in their field of study received a significant award at Josef Hlávka's castle in Lužany. Among the award recipients were two students of the Department of Radio Electronics, graduates of the Electronics and Communication Technologies programme. The **Josef Hlávka Prize** was awarded to Patrícia Klobušiaková for her work Evaluation of Functional Connectivity and Brain Structure in Patients at Risk of Synucleinopathies. Professor Mayer's special prize for the best students of electrical engineering faculties was awarded to Ondřej Kolář, currently a Ph.D. student at the FEEC Department of Radio Electronics.

▲ Robin Filip from FEEC was awarded 2nd place in the **Werner von Siemens Prize** competition in the category of the best diploma thesis. His diploma thesis EV Smart Charging and BESS for Increasing PV Hosting Capacity of Distribution Networks was prepared under the supervision of Ing. Martin Paar, Ph.D., and prof. Matti Lehtonen from Aalto University. The award ceremony took place on Thursday 19 May 2022 at the Bethlehem Chapel in Prague.

Willi Lazarov, a student of the Master's degree programme in Information Security at FEEC, won the **EY Cyber Security** Trophy in the EY ESO Cyber Security Future Promise category for his contribution in the field of cyber security. In addition to the first place award, he received other awards for his scientific, research and teaching activities. Willi is already involved in a number of R&D projects in the field of cyber security at the Department of Telecommunications at FEEC. The aim of the EY Cyber Security Trophy is to recognise companies, professionals and future talents working in the field of information and cyber security and ethical hacking in the Czech Republic and Slovakia.

Vojtěch Havlena, who works at the Department of Intelligent Systems, impressed the jury of the 12th year of **Joseph Fourier Prize**, which traditionally recognises young talents in the field of computer science. His work involved the development of efficient automated techniques in terms of programme verification and network security. He has succeeded in developing new approaches that further advance the practical applicability of finite automata in real-world applications and enable, for example, more effective detection of network attacks and anomalies.

▲ During a gala evening held on 22 March at Brno City Hall, seven Ph.D. students from Brno University of Technology received a scholarship cheque for their further research within the **Brno Ph.D. talent** programme. Each of them received a scholarship of CZK 330,000. The amount will be paid to them continuously over the next three years.

Brno University of Technology was awarded 1st place in the competition for **the best stand at the Gaudeamus fair**. A total of 16 universities entered the competition. The committee evaluated not only the programme, but also the visual appearance of the exhibition and the helpfulness of the university representatives. The BUT presentation impressed the jury with its robotic hockey, chemical experiments, a formula simulator, a robot mixing drinks and, last but not least, a cross-section of a Skoda Kodiaq.

From 7 to 13 November 2022, BUT teams participated in the **World InterUniversities Championship 2022** (WIUC) in Barcelona. About 3,100 students from 64 universities and 26 countries competed in eleven sports. In a competition featuring 20 to 25 teams in each sport, BUT teams gained top positions. In volleyball, the women took first place, the men second. In basketball, the women placed third.

Jubilees

▲ In 2022, the **30th anniversary of the reopening of the Faculty of Chemistry** at BUT was celebrated. While in 2021, the faculty commemorated the 110th anniversary of the establishment of the Department of Chemistry, in 2022 C.k. Czech Technical University of František Josef celebrated 30 years since its re-establishment in 1992. The anniversary celebrations culminated in a festive academic assembly on 2 November 2022. The celebration included a reunion of graduates and a concert by popular bands on 16 September 2022 on the FCH campus.

The **Faculty of Business and Management** at BUT also celebrated its **thirtieth anniversary** by commemorating the establishment of the faculty at a gala evening held on 13 September 2022.

The last Saturday in April saw the celebration of the **20th anniversary of the Faculty of Information Technology**. The faculty campus welcomed more than 1,100 visitors. As part of the celebrations, 24 IT-themed workshops were held, as well as the Excel@FIT student thesis conference, in which 33 projects were evaluated this year. Visitors could take a look into the laboratories and get inspired by Leoš Dvořák's lecture on Software Quo Vadis. The Students' Union had many games and sports competitions, which were mainly aimed at children and young people. In the afternoon, student bands from FIT took the main stage followed by Michal Horák and Petr Čadek. It was a great musical experience from the first song to the last.

1.3 BUT science centres

Central European Institute of Technology (CEITEC) BUT

After three years of construction, the experimental laboratory Testbed for Industry 4.0 was inaugurated at CEITEC BUT in Brno at a cost of approximately CZK 450 million. It is a smart test factory with a focus on digitalisation and automation of production, which is not only for research, but also to help small and medium-sized companies to implement digitalisation of their production processes faster.

In 2022, a new chemical laboratory joined the shared laboratories of CEITEC BUT. Although it belongs to the CEITEC Nano infrastructure, which manages, among other things, clean spaces, scientists affectionately call it "dirty". This gave users the possibility of chemical analyses, especially in the field of materials engineering.

In December 2022, the Joint International Web Conference was held, focusing on the use of advanced spectroscopic methods in power engineering, the environment and what are termed extreme applications, i.e. seafloor analysis, nuclear and space applications. RG3-6 members prof. Jozef Kaiser and doc. Pavel Pořízka also participated in the organisation of this conference. Over the two days, more than 60 scientific lectures and 30 online posters were presented in three parallel sessions.

The CEITEC Student Talent Summer School was held for the second time. The aim of this three-day event is to spread awareness of scientific work and research among secondary school students. They have the opportunity to penetrate the secrets of science and research, to try out the work of a scientist and to experience the atmosphere of an international research institute.

Extending the conventional electron microscope to include an atomic source that allows chemical reactions to be carried out instead of simply observing a sample – this is the goal of the project which won both the Business category and the public vote in the competition organised by the Technology Agency of the Czech Republic (TA CR). The prototype of the device, which was developed by a team

from CEITEC in cooperation with Thermo Fisher Scientific, will find practical application, for example, in materials research on metals. Miroslav Kolíbal, Kristýna Bukvišová and Meena Dhankar from CEITEC BUT are involved in the project.

The prize of the Czechoslovak Microscopical Society was awarded to prof. Radim Chmelík for his lifetime work and for his significant contributions to the development of microscopic methods.

The increasing use of plastic materials is leading to a continuous accumulation of waste in the marine environment, where it breaks down into hazardous microplastics and nanoplastics. During the last year, scientists from the research group of prof. Martin Pumera investigated the potential of technologies to capture and degrade these plastics by autonomous nano/microrobots. Their research was published in the prestigious journal Advanced Functional Materials. The authors of the award-winning publication, Mario Urso and Martin Pumera from CEITEC BUT, proactively discuss the upcoming challenges in the field of water purification from nano/microplastics and other pollutants.

Vojtěch Uhlíř from CEITEC BUT coordinated a project dealing with the completely new technology of artificial synapses with low energy consumption based on spintronic nanodevices. These synapses should prevent memory loss of previously learned tasks while learning new ones. This is the main shortcoming that all AI applications currently face. The project involves three European universities (Université Paris-Saclay, Brno University of Technology and the University of Zurich), two research institutes (Consiglio Nazionale delle Ricerche and Forschungszentrum Jülich) and three science and technology companies (Spin-Ion Technologies, HawAI.Tech and Singulus Technologies).

The aim of the ProfiBone project (TA CR KAPPA – EEA, Norway Grants) led by Lucy Vojtová from CEITEC BUT is to develop a polymer-ceramic ink for low-temperature 3D printing of patient-specific bone implants, specifically, parietal bone implants of the skull, removed during neurosurgical applications and replaced with mostly permanent metal or plastic implants, in addition to multidisciplinary collaboration between Czech partners (CEITEC BUT and the Charles University Faculty of Medicine Biomedical Centre in Pilsen) and Icelandic partners (IceTec Institute of Technology and Genis science and technology company) The aim is to improve the mechanical, degradable, healing and antibacterial properties of implants by modifying ceramic cement with binders based on biodegradable polymers and bioactive polysaccharides and proteins. Implants for repair of parietal bone defects are 3D printed by bone ink extrusion and tested on a rat model after optimisation of physical properties. A utility model of bone for 3D printing of implants with adjustable mechanical properties, a utility model of antibacterial cement for 3D printing of bones with enhanced biological activity and a functional model of 3D printed cranial parietal bone are all currently under development.

The Radim Kettner Prize is awarded by the Institute of Geology and Palaeontology of the Faculty of Science of Charles University. For 2022, it was awarded to Victory Jaques, who is studying for her Ph.D. at CEITEC BUT, for the best publication in the Academic (junior) category. Radim Kettner was one of the most important Czech natural scientists. He is considered the founder of modern geology.

IT4Innovations

The IT4Innovations Centre of Excellence project was jointly implemented by five partners between 2011 and 2015: VSB – Technical University of Ostrava, Silesian University in Opava, BUT and the Institute of Geonics of the Czech Academy of Sciences. Subsequently, the collaboration of these entities continued in the form of the IT4Innovations excellence in science project from the National Sustainability Programme II, in which the centre built on its excellent research in the areas of supercomputing and embedded systems.

The Centre of Excellence project concluded in 2015 and in 2020 the subsequent five-year sustainability period ended. But this does not mean the end of the activity itself. The Information Technology Research Centre at FIT, which was established within the IT4Innovations project, also runs a number of grant and contract projects at the faculty, and the established cooperation with the Ostrava supercomputer continues within both research and student projects.

Centre of New Technologies for Mechanical Engineering (NETME Centre)

Cooperation with the traditional regional industrial base and a number of international collaborations in the field of applied and contract research have long placed the NETME Centre at the forefront of engineering centres in the Czech Republic. The NETME Centre operates as a scientific research centre at the BUT Faculty of Mechanical Engineering.

In 2022, the cooperation of FME BUT, including NETME, with industrial partners in the field of science and research reached the value of CZK 79.8 million (from non-public sources), of which the centre's contract research amounted to CZK 36.9 million. The research teams of the centre managed to deepen cooperation with long-term partners (e.g. ŠKODA AUTO, Třinecké železárny, ČEZ, Koyo Bearings, etc.), while also establishing new collaborations.

In the field of basic research, NETME was involved in 25 projects supported by the Czech Science Foundation (GACR) in 2022, of which ten were newly launched. The research teams were also granted funding by GACR for another five standard projects and one international project, the implementation of which begins in 2023. These projects form a significant share of the FME's basic research.

In the field of applied research, NETME was also involved in 31 projects supported by the Technology Agency of the Czech Republic (TACR) in 2022. NETME teams also participated in activities in a total of five National Centres of Competence, two of which they coordinated (MESTEC, NaCCaS) and three in which they were partners (NCK Strojírenství, NCK Energetika and NCK JOBNAC).

Research teams collaborated with companies on 25 projects supported by MIT. As in previous years, a number of collaborations in the field of contract and collaborative research also took place in 2022. For example, the fledgling development of a new method for treating seeds without the use of chemicals was a media success. NETME experts are working on it with the Czech seed producer, SEED SERVICE. Over the course of four years of research, they want to come up with not only a physical and therefore ecological method of seed treatment, but also a prototype machine that can treat tens of tons of seed per hour.

During 2022, a total of 24 project applications were submitted to international cooperation projects: ten projects were submitted to the Horizon Europe programme, four projects to the ESA programme, three project applications to the COST Action programme, two projects to the Inter-Action programme Czech Republic/USA, two projects to the mobility programme and one project each to the European Defence Agency (EDA), M-ERA.Net and Visegrad Fund programmes. Although the ratings for all submitted projects are not yet known, the success rate for 2022 is 37%.

A significant event in the area of projects was the launch of the BAANG international project, funded by the Horizon Europe programme in October 2022. FME is a coordinator in this project and, along with prestigious foreign universities (Delft University of Technology, Vienna University of Technology and Imperial College London), will try to increase the scientific excellence of Brno University of Technology by cooperating on research in the field of smart aviation, which should make air transport more efficient and thus save costs and the environment.

Successfully approved projects in the Horizon Europe programme also include a project called H-Hope – Hidden Hydro Oscillating Power for Europe. Fourteen top international institutions participate in the project consortium, including the University of Padua in Italy, the largest technical university in Spain, Catalunya, and Uppsala University in Sweden, the oldest operating university in Scandinavia. The project is aimed at developing new technology to enable the recovery of energy from watercourses in non-aqueous hydraulic systems, with a particular focus on existing water facilities (i.e. water supply networks, wastewater treatment plants, irrigation systems, etc.) and free-flowing watercourses (i.e. watercourses in natural and artificial open channels).

The project, called Pan-European Network for Sustainable Hydropower, is aimed at developing a strategy for digitising turbine pumps, both in the design phase and in operation, using predictive maintenance, computational flow mechanics and digital twin technology.

In 2022, the Sustainable Process Integration Laboratory (SPIL) successfully organised its sixth annual conference – Energy, Water, Emission, Waste in Industry and Cities – in a hybrid format with more than 100 participants from all over the world.

The NETME Centre continuously motivates scientists to grow and engage in international projects. In 2022, it organised two interactive workshops led by international experts. The first one, called Leading your team effectively and developing innovative thinking or engage facilitation methods, was a workshop focused on effective team leadership, developing innovative thinking and engaging facilitation, a method that focuses on effective achievement of a result or negotiation. In an academic setting, facilitation is a relatively innovative method. The workshop was led by British experts from The Collective, a company that has long been active in the academic environment, and aimed to strengthen specific skills associated with managing or working in international teams.

The second workshop built on the strategy that the scientists were developing in 2021. The workshop, entitled Be one step ahead or how to create and present your own message based on your research that will attract attention and be in line with EU policies, focused on creating a concise scientific message/theme that will attract attention and be in line with EU policies and objectives. If a scientist wants to succeed in an international project, it is essential to find a direct link between what they are scientifically addressing and what the EU sees as a priority to address. If a scientist can describe

well, and ideally quantify, the contribution of their research to addressing current European priorities, the likelihood of a successful project application increases greatly. The workshop was led by two international lecturers with direct links to the EU's Joint Research Centre (JRC). David Uhlíř, representative of the Regional Innovation Strategy, was also invited in order to connect scientists with national events.

The NETME Centre has also focused on supporting practical work in an international team. The webinar Listing Publications in Reference Manager was created based on demand from young scientists. The webinar was conducted by doc. Zdeněk Hadaš, a successful author and co-author of more than 140 publications and a successful researcher on national and international projects.

Centre of Advanced Materials, Structures and Technologies (AdMaS)

The AdMaS Research Centre (Advanced Materials, Structures and Technologies), which is part of the Faculty of Civil Engineering at BUT, is a modern centre of science and complex research in the field of construction. It focuses on research, development and applications of advanced building materials, as well as advanced structures and technologies. However, its scope extends beyond the field of construction, for example, in research focused on transport systems, the infrastructure of cities and municipalities or the circular economy.

Already in its eighth year of full operation, the AdMaS Centre, under the management of the director Ing. Zdeněk Krejza, Ph.D., saw not only the continuation of research activities in its entire range of activities, but, particularly in the first third of the year, also coping with the receding restrictions associated with the COVID-19 pandemic and the fact that the general contractor's warranty for the construction work has expired and the operation and maintenance of the buildings and the premises is now solely covered by the budget of the Centre.

In 2022, as in the previous year, research projects co-funded by the GACR and, TA CR agencies were carried out by the AdMaS Centre in accordance with its research objectives, or in accordance with the objectives of individual interest groups. Projects were carried out under the auspices of MEYS, MIT or MFA. A significant amount of research was carried out directly with companies as contract research. The AdMaS Centre actively prepared research projects and, within the limits of its capabilities, developed new research areas and facilities for additive technologies and 3D printing. Core activities of researchers in 2022 also included innovations in the construction industry in the area of improving existing technologies, materials and processes, the circular economy, water and waste recycling in the framework of green infrastructure of cities, for example, during the last year of individual research projects implemented in the CAMEB Centre of Competence, which is the main research project of the AdMaS Centre.. Thanks to the activity of all researchers of the AdMaS Centre, the research activity in 2022 continued with a similar volume of outputs as in previous years.

During 2022, some major R&D projects from previous years were completed at the AdMaS Centre, including the National Centre of Competence CAMEB Centre of Advanced Materials and Efficient Buildings project, whose successful implementation in the first years of its running enabled the extension of its funding for another two years. In 2022, a new consortium for the NCK II project was formed and the project application was submitted for evaluation. In 2022, the AdMaS Centre addressed a total of 68 national and international projects under various grant providers (CSF, TA CR, MIT, MEYS, MoE, MFA, MoA).

In 2022, the Centre continued its intensive cooperation with the application sphere both in the area of contract research, where it exceeded the revenue threshold of CZK 51.8 million in 616 contract research contracts, and in the area of joint R&D projects. The largest project was the National Centre of Competence CAMEB project, which is funded by TA CR and includes several sub-projects addressed within the Brno University of Technology, Czech Technical University in Prague, Technical University of Liberec, Mendel University and more than twenty companies from the private sector. The programme is aimed a. s.pporting long-term coopera-tion between the research and application spheres and improving the institutional base of applied research. A total of five sub-projects were implemented at the AdMaS Centre. These projects are ADMATEC, ATICOS, EPILOT, REBUILD and REVOZIM. More at www.cameb.cz.

Furthermore, in 2022, the Sludge Hygienization for Minor Pollution Sources project, whose short name is Kaloman, continued. With the financial support of the Ministry of Industry and Trade under the Operational Programme Enterprise and Innovation for Competitiveness – Applications Programme, Call No. VIII, its aim is to verify five technologies for hygienisation of sewage sludge targeted mainly a. s.aller pollution sources, smaller wastewater treatment plants, on an operational scale, to evaluate their operational and investment costs and the efficiency of pathogen inactivation required for declaring sludge as hygienised. The following technologies will be used and verified for the hygienisation of the sewage sludge: sludge hygienisation with pure oxygen – OSS, Multiferm technology, thermal sludge hygienisation, sludge hygienisation using lime and long-term sludge storage with the aim of hygienisation.

In the spring of 2022, the project For Healthier and Better Water in Brno was completed in cooperation with Brněnské

vodárny a kanalizacemi, a. s., and ALS Czech Republic s. r. o. In accordance with the assignment, the project team led by Prof. Petr Hlavínek focused on monitoring the sources of drinking water for Brno and at the same time on monitoring wastewater produced in Brno. As part of the year-long campaign, researchers at the AdMaS Centre quantified and evaluated a number of pollutants, such as pesticides, pharmaceuticals, hormones and microplastics in drinking water, and came to the positive conclusion that both treated drinking water and surface and groundwater sources of drinking water for Brno are of high quality and free of life-threatening amounts of micropollutants, hormones and narcotics. In addition, when monitoring the wastewater they focused on the presence of industrial substances and heavy metals and found that the wastewater is polluted as expected on the basis of the conducted research and, in relation to the monitored indicators, contains not only microplastics and pesticides, but also narcotics and other monitored substances (heavy metals, etc.). Experts draw attention to the fact that technologies already exist to remove micro-pollution in wastewater. However, these are not yet widely used in practice, among other things because Czech legislation does not require it. For example, the AdMaS Centre has an Advanced Oxidation Technology Unit, which is a suitable tool for the removal of these micropollutants, and offers verification of the efficiency and effectiveness of the deployment of these technologies in testing.

In early 2022, researchers at the AdMaS Centre led by Dr. Jakub Raček were granted a two-year project funded by the Ministry of Education, Youth and Sports. entitled Circular Economy in Water Management from the International Cooperation in Research and Development activity to support the mobility of researchers, the project is jointly run with the University of Natural Resources and Life Sciences, Vienna (BOKU), Department Water-Atmosphere-Environment. In 2022, research activities focused on basic principles, primarily using available relevant national and international literature to identify available and promising approaches and technologies for wastewater management in line with circular economy principles. The priority is the use of waste as a resource and energy balance processes.

In addition, a project funded by the Czech Ministry of Foreign Affairs entitled Utilisation of Biochar as Material Transformed Waste for Extensive Green Roofs, implemented under the auspices of the Strengthening Capacity of Public Universities in Developing Countries programme, was successfully completed in 2022. As part of the international project, experimental green roof modules were installed and the current activities of the AdMaS Centre were presented. At the same time, the Faculty of Civil Engineering at BUT was represented and possibilities of further cooperation were shown.

In September 2022, the international project Circular Wastewater Management in a Four-Country Context: Concepts, Approaches and Technologies was launched with the financial support of the Visegrad+ Grant of the Visegrad Grant Fund. Representatives of universities from four Eastern Partnership countries, the Czech Republic, Hungary, Poland and Slovakia, and a university from Bosnia and Herzegovina, representing a Western Balkan country, are cooperating on the project.

Materials Research Centre (CMV)

The Materials Research Centre is a specialised research centre based at FCH, which specialises in applied research in inorganic materials, advanced organic materials, biomateri- als and materials for smart technologies – with emphasis on their chemical side, properties and management. In recent years, CMV researchers have focused on sustainable technologies and materials. Studies are also conducted on the ecological aspects of their production and subsequent recycling or other ecological use of materials of all categories.

In addition to applied research and collaboration with industry, CMV has a strong foundation of basic research of its own, which is profiled in the areas described above and serves as inspiration and a springboard for potential applications in the above-mentioned fields and disciplines.

The main objective of the Materials Research Centre at the Faculty of Chemistry at BUT is to develop cooperation between research at the university and real industry. The connection between CMV scientists and industry is mainly implemented in the form of contract research and jointly implemented projects with internal and grant funding.

The close cooperation of CMV with industrial partners results in an effective transfer of knowledge from the laboratory to real practice. Within the framework of cooperation with the industrial sector, CMV involves students from FCH, of which it is a part, in research tasks that are implemented in cooperation with industrial partners. More and more students are involved in such projects each year. Students thus gain an overview of the real needs of the industry, which contributes significantly to the mission of the technical university. These are often the companies they join after graduation.

In 2022, CMV succeeded in developing cooperation with industry in the field of applied research through contract research and joint research projects. As of 31 December 2022, 51 scientists and researchers were employed at CMV. This year, the volume of contract research reached CZK 6.5 million. In cooperation with the application sphere, 24 research projects were implemented in 2022, of which seven were implemented under the TRIO programme run by MIT, twelve projects were implemented in the calls of TACR, three under the OP EIC programme and one under the MI call. The remaining project with industrial partners is one of the prestigious H2020 family of projects.

In 2022, CMV scientists and researchers were involved in seven basic research projects supported by the Czech Science Foundation. CMV employees were also participants in three mobility projects (MEYS) and one funded through an Interreg Europe grant. Four OP3V projects and five projects under NRP (National Recovery Plan) were also implemented under CMV. In total, 44 projects with a total financial volume of more than CZK 48 million were implemented at CMV in 2022.

In 2022, the team of prof. Miloslav Pekař was awarded the TA CR prize in the category Society for its cooperation in the TA CR project TH02030073 Revitalisation of Agricultural Land in Drought-Prone Areas of the Czech Republic. This project was implemented jointly with Mendel University.

As in previous years, in 2022, scientists, researchers and other employees of CMV also actively participated in science-popularisation events such as the Brno Science Festival, which was held for the first time at the Brno Exhibition Centre this year and was attended by more than 10,000 visitors. The CMV performers are considered the founding fathers of this traditional popularisation activity. CMV was also actively involved in the Night of Scientists and Days of Electron Microscopy events.

Centre for Sensory, Information and Communication Systems (SIX)

The SIX Centre was established in 2010 by connecting the BUT faculties of Electrical Engineering and Communication, which are engaged in the research and development of sensor systems, information and communication technologies and advanced technological platforms, whose application can be found in various areas of everyday life. By bringing the selected areas together, synergies and complexity have been achieved in implementing major research and development projects and economic collaborations arising from the industrial sector.

The interest in the SIX Centre on the part of industrial partners has become increasingly evident in recent years and this will be no different in 2022. Following the previous two somewhat stagnant and more difficult years, affected by significant constraints mainly due to the pandemic, the demand for economic cooperation has again kick-started new directions in economic cooperation. This fact, among other things, is underlined by the high financial yield from contract research contracts, which reached CZK 10 million, which is 28% of all non-public funds obtained from contract research at the faculty. The funds obtained for applied research projects amounted to about CZK 120 million, which is more than half of all faculty funds obtained for applied research projects.

As the most significant achievement of the SIX Centre, the Golden Ampere 2022 for the soldering station product must be mentioned.

Centre for Research and Utilisation of Renewable Energy Sources (CVVOZE)

The research centre concentrates its research, development and innovation capacities on dealing with complex issues of renewable energy sources. The research teams of the centre deal with problems in the field of chemical and photovoltaic energy sources, electro-mechanics, electrotechnology, electric drives, electric power engineering, nuclear energy and industrial electronics in a total of five basic research areas: optimisation of electromechanical energy conversion; chemical and photovoltaic energy sources; production, transmission, distribution and use of electricity; automation and sensor technologies and research of the tripping process in switching devices.

In 2022, the Centre published 35 journal papers with an impact factor according to the Web of Science database, 21 of which were in the Q1 or Q2 category, according to the order of the journal.

A total of 40 applied research projects were implemented within the Centre in cooperation with industrial sector companies (projects of TA CR, MIT or OP EIC). The funds received for applied research projects amounted to CZK 67 million for the Centre. The projects Development of modern Control Systems for Aircraft Engines (CZ.01.1.02/0.0/0.0/20_321/0024513) and Development of Multiphase Fault Tolerant Drive in Aerospace Applications (CZ.01.1.02/0.0/0.0/21_374/0026904) were implemented under the OP EIC programme. Important applied research projects supported by TA CR include, for example, the projects Electric Motors with IE2 Efficiency Powered from Single-Phase Grid (TK03020140), Research and Development of Electric Drive For Wheel Loader (FW01010156), Force Monitoring System Using IoT technology (FW03010336), Smart System for Energy Management of Power Grids (TK02030039) and Advanced Materials for Lithium and Post-Lithium Battery Electrolytes (TK04030083).

Another great success of the centre is the acquisition of CZK 15.5 million in contract research contracts for industrial companies, which amounts to almost 43% of all non-public funds obtained from contract research at the faculty.

An important part of the research centre is the infrastructure called CVVOZE Power Laboratories (CVVOZEPowerLab), which consists of the High Current Laboratory and the High Voltage Laboratory, located in Prof List`s Science and Technology Park. The development of this infrastructure was mainly motivated by the need of the research community to carry out experiments in the areas of advanced diagnostics of electrical discharges generated in switchgear for the power industry and precision diagnostics of insulating materials used for high-voltage equipment.

1.4 BUT mission, vision and strategic goals

BUT has clearly defined strategic goals in the BUT Strategic Plan for the period from 2021+. BUT's main long-term priorities are internationalisation, the international dimension in educational and creative activities, and excellence in science and research.

It is a long-term objective of BUT management to be a strong university of great quality and to be able to compete with major universities in Europe and around the world, especially in the field of educational, creative and artistic activities. The achievability of the ambitious objectives and the feasibility of the presented measures are conditioned by the long-term stable economic development of the Czech Republic and a stable legislative and economic environment.

BUT vision 2030

BUT is:

- a technical diversified university with a strong position among the world's universities in terms of the international competitiveness of its graduates, its reputation and percentile position in international rankings;
- a renowned technical university that creates conditions for the admission and studies of foreign students studying in English and in international study programmes, aiming for their share to be at least 8% in 2030;
- an educational institution with an international team of educators and researchers, significantly influencing technological progress;
- an institution that creates and supports cultural and social events, on both local and international stages;
- a scientific-research organisation defining research, development and innovation trends;
- a platform for setting up successful start-up and spin-off companies;
- a partner in the establishment and development of industrial companies.

BUT offers and will continue to offer a stable place not only for employees providing quality educational and research, creative and artistic activities, but also for other employees who organise both the main activities and all other support and service activities for the university's benefit. BUT will be a harbour for all its employees, who will be able to establish themselves in any of these activities and who will be the mainstays of their teams. BUT is made up of people who are connected by the same values and traditions, people closely intertwined with the vision and brand of BUT.

The competitiveness of BUT will be ensured not only by international compatibility, but also by its difference, originality and uniqueness, with an emphasis on the region, tradition and history. BUT will play an important role in the functioning of the city of Brno and its identity.

BUT objectives 2021+

The following priority objectives are defined within the BUT 2021+ Strategic Plan:

- Priority objective 1: Develop competencies directly relevant to life and practice in the 21st century
- Priority objective 2: Improve the availability and relevance of flexible forms of education
- Priority objective 3: Improve the efficiency and quality of doctoral studies
- Priority objective 4: Strengthen strategic management and the effective use of capacities in research and development at BUT
- Priority objective 5: Build capacity for the strategic management of BUT
- Priority objective 6: Reduce the administrative burden on BUT staff so that they can fully pursue their mission

BUT's principal objective is to guarantee the high quality of educational and scientific activities, to increase the quality of research so that BUT becomes a trend-setter in science and attracts excellent educators and researchers, and to fulfil its "third role" by offering useful and visible expertise and authority within the region, within the Czech Republic, and around the world. Another goal is to increase the performance of BUT in the evaluated criteria for which BUT funds are (and especially will be) allocated.

The fulfilment of these objectives will be indicated, among other things, by a shift in the relevant university rankings.

BUT will be:

- a technical university of first choice offering valuable university education based on the synergy of technical, economic and artistic disciplines with a significant share of teaching in English;
- a prestigious research university with internationally respected teams of high quality researchers, which will be able to shape the trends of international research and acquire significant industrial resources and prestigious projects;
- a homogeneous but diverse institution with high institutional culture;
- a workplace that will create an attractive free environment for research, development and educational activities for the academic community, providing top administrative and technical services to its employees.

BUT will actively participate in changes and modifications to evaluation criteria within the Czech Republic. It will promote the appreciation of the evaluated importance of technical higher education institutions for the development of the Czech Republic.

BUT and each of its faculties and departments will have clearly defined research priorities and developed cooperation with the real-world users of its research. It will regularly evaluate these priorities and adjust its plans in response to public demand reflected in public tenders to support research projects, as well as in response to the needs of society, using a system of performance evaluation of academics and researchers.

In order to improve the international prestige of studies at BUT, and thus also to increase foreign students' interest in studying at BUT, BUT faculties and departments will strive to acquire accreditation for some study programmes by recognised foreign accreditation agencies.

BUT will take further measures to renew its existing infrastructure, utilise the sharing thereof and more widely integrate it into the Roadmap of large infrastructure in the Czech Republic. It will introduce rules for the acquisition of new, costly equipment in line with the policy of open access to these capacities within the international research area.

BUT will continue to support students with special needs through the Alfons Counselling Centre.

BUT will emphasise branding, i.e. the connection of employees, students and graduates with the BUT brand and the position of BUT. BUT will also strengthen awareness of the BUT brand outside the Czech Republic – in Europe and around the world.

BUT is aware of its own socio-cultural and environmental responsibility and it will continue to strengthen and develop it. BUT will continue to perform all its activities in accordance with the signed Call for Assistance in Reducing Emissions in the City of Brno, which was signed in February 2020 by the Rector of BUT and the Mayor of Brno, as well as by 28 other major companies and institutions in Brno.

1.5 Achieved goals within the BUT Strategic Plan for 2022

Priority objective 1: Develop competencies directly relevant to life and practice in the 21st century

A draft concept of the education of BUT employees has been created, divided into five basic educational areas (language education, pedagogical education, IT, soft skills and management education). The offer of training courses for employees regularly responds to the current needs of the university management and senior staff, and the needs of the employees themselves. The new courses are targeted at employees based on their occupational category (for university management, managers and senior staff, academic staff, marketing staff, scientific researchers, and all other BUT employees).

In March 2022, registration for the 3rd year of the BUT Student Entrepreneurship Award was opened. Forty-two student ideas were registered, of which twenty advanced to the second round. In the second round, ten ideas were financially rewarded and advanced to the third round. The third round will take place in spring 2023. Throughout the rounds, the students were not only supported by the consultation offered, but also by the opportunity to participate in a programme promoting presentation skills and by a Mentor's Day. The level of entrepreneurial ideas in the 3rd year of the BUT Student Entrepreneurship Award competition is at a high level, based on the students' field of study and shows inter-faculty and inter-university cooperation.

In the summer semester 2022, 50 students enrolled in the university-wide course Developing and Implementing a Business Idea, and in the winter semester 2022/2023, 85 students enrolled.

Priority objective 2: Improve the availability and relevance of flexible forms of education at BUT

In 2022, BUT strengthened its elements and infrastructure supporting distance education, the extension for distance knowledge verification, a module for more effective management of course/subject content was integrated into the Learning Management System of BUT (LMS BUT).

An e-learning course focused on writing bachelor and master theses has been created and will be uploaded to the BUT Moodle during the month of January.

Two workshops for academic staff were held to address the issue of students with specific needs and the possibilities of the innovative LMS in relation to disadvantaged students.

Courses covering study strategies, organisational skills and concentration were organised for students with specific needs.

Other specific courses, supplemented by an offer of individual psychological services, were also designed to facilitate studies with the family and working life of full-time and combined students. Courses and services can be completed in both face-to-face and online formats.

Priority objective 3: Improve the efficiency and quality of doctoral studies at BUT

BUT financially supported beyond the standard doctoral scholarship those doctoral students who best followed their individual study plan, showed results of creative activities beyond the scope of this plan, have a great potential for further development during their studies and the results of whose creative activities are above standard. These students are selected by individual parts of BUT according to their own criteria, corresponding to the nature of study at that faculty or department.

As part of strengthening the internationalisation of doctoral studies, BUT faculties and departments financially supported the recruitment of new foreign dissertation readers. BUT is also developing a long-term effort to increase the number of Cotutelle-type doctoral studies.

In 2022, BUT focused on promoting the harmony of study and family life and on strengthening the social integration of Ph.D. students by creating an electronic Guide for Ph.D. students at BUT in both Czech and English versions. The Guide will facilitate students' orientation in the BUT environment; current Ph.D. students were also involved in its creation.

In order to increase the quality and efficiency of the study, the concept of a mentoring programme for Ph.D. students has been developed, including a proposal for a mentoring programme conducted in groups, mainly in the form of workshops, focusing on both academic skills (e.g. successful grant application, integrity of science and research, how to present) and soft skills (time-management, mental health, socio-economic literacy, stress management, etc.). As an introduction to the possibilities of implementing a mentoring programme at BUT, a webinar on setting up a mentoring programme was organised for the BUT management and representatives of the Student Chamber of the Academic Senate. Representatives of students of BUT AS and AS of faculties and university institutes of BUT were involved in the implementation of mentoring programmes at individual faculties and university institutes. The mentoring programme at BUT will be implemented by involving both Ph.D. students and students of follow-up master's studies.

In 2022, an online survey was conducted among BUT doctoral students in their final year of study. Its aim was to find out their opinions on equal opportunities, career development opportunities, undesirable social phenomena in the workplace, the culture of the BUT work environment, gender equality, support for science and research, teaching and education, as well as their opinions on combining doctoral studies and personal life or parenthood. The results of the questionnaire survey will be used to set up conceptual support for doctoral students.

Priority objective 4: Strengthen strategic management and the effective use of capacities in research and development at BUT

In 2022, an analysis of the university's disciplinary breakdown was undertaken, in response to the mapping of the university's scientific profile in terms of competitive performance from the following perspectives:

- publishing activities;
- staffing and potential;
- financial performance.

The faculties and departments of BUT were provided with methodological assistance for the preparation of accreditation of habilitation procedures and procedures for the appointment of professors in accordance with the approved BUT Rules of Habilitation Procedure and Procedure to Attain Professorship and the BUT guidelines on appointment procedures. In the BUT Apollo central information system (BUT IS), the conditions and responsibilities for the individual modules of science and research were prepared and the parts under the responsibility of the Research and Development Department, the Project Support Department and the Technology Transfer Department at the Rector's office and at other BUT departments were defined.

Priority objective 5: Build capacity for the strategic management of BUT

A new department was established – the Development and Analysis Department, which covers activities related to the support of strategic management, as well as analytical activities used to support top management decision-making, for reporting purposes and the creation of "institutional" documents, and, last but not least, activities in the field of quality assurance and management.

The establishment of the department was part of the organisational changes to the Rector's office, the aim of which was to integrate fragmented activities, mainly analytical, into one unit/department.

The process of establishing the department was connected with the approval of the new organisational structure of the BUT Rector's office. For this reason, the department was officially established in August 2022, but the individual analyses were worked on throughout the year.

Specific outputs include the creation of data cubes to support strategic management and analytical material on the issue of evaluation criteria in international rankings (THE, QS Ranking). On the basis of this material, areas where BUT is weak are strengthened. Selected specific criteria identified in the analyses of selected international rankings were also used for the preparation of the BUT Budget Rules for 2023, as a motivational "area" consisting of six parameters that lead to a separate quality indicator (Q), which is part of the K indicator with a weight of 12%.

Priority objective 6: Reduce the administrative burden on BUT staff so that they can fully pursue their mission

In 2022, the conversion of the BUT IS was carried out through several independent projects of varying scope, mostly in the area of study. The first phase of the conversion involved analysing existing solutions and assessing whether and how faculties can adapt and use existing solutions in the BUT IS. A significant part of the activities was also carried out internally at the faculties. Finding ways to leverage existing applications and minimise modifications to existing systems was a major focus of the presentations and discussions.

In November 2022, analysis of the study part of the BUT IS began, the conclusions of which will be known in the first quarter of 2023.

In 2022, the further development of the SPP Elements Administration application continued, linking the databases of responsible persons to the authorisation of travel orders and shopping baskets, with the aim of reducing the administrative burden.

1.6 Activities of the BUT Academic Senate

In 2022, the BUT Academic Senate (hereinafter referred to as the "AS") held ten regular and one external meeting. The January and February meetings of the AS were still held at a distance due to the COVID-19 pandemic, including the meetings of the AS working committees. After the improvement in the pandemic situation, the AS meetings were on-site. From March 2022, AS meetings were held a. s.andard intervals of once every four weeks (except for one extraordinary AS meeting in May); AS meetings were further supplemented by meetings of AS working committees – the economic, legislative, creative activitiy and pedagogical committees, which discussed relevant documents, commented on them and adopted resolutions / recommendations on proposals submitted to the AS for approval.

In particular, the large Economic Committee (22 members) of the AS, which held twenty meetings in 2022, held its meetings on-site. The other AS working committees discussed the submitted proposals and adopted their resolutions per rollam. All working committees held a meeting externally within the framework of the BUT AS.

At the beginning of 2022, the Economic Committee of the BUT AS (EC) discussed in detail the BUT Budget Rules for 2022. Emphasis was placed in particular on the translation of the rules of MEYS into the specific conditions of BUT in relation to its strategic goals, taking into account the many years of underfunding of university education in the Czech Republic compared to developed EU countries. The draft budget rules for 2022 were discussed from the perspective of the BUT's year-on-year stability. Extensive follow-up economy and performance-oriented discussions at the BUT AS external meeting contributed to the preparation of the BUT Budget Rules for 2023 by the BUT management. These proposals, bringing new elements to the funding area were then discussed widely and successfully by EC members with the BUT management in autumn and late 2022. Following the budget rules, for 2022, the EC systematically discussed the BUT budget in the spring. During 2022, property issues and strategic topics with economic implications were regularly discussed by the EC.

Also for this reason and in connection with the activities of the EC of the BUT AS, it is appropriate to mention the active participation of BUT AS members representing BUT in the Council of Higher Education Institutions (RVŠ). These BUT representatives were active especially in the areas of strategic development of universities, in economic, legislative, artistic and scientific activities. Thanks to the long-standing prestige of BUT established in the Council of Higher Education Institutions, it was again possible to actively involve the prominent representatives of the Council of Higher Education Institutions in the deliberations of the BUT AS external meeting and thus give it a thematically supra-university overlap. The BUT representatives in the Council of Higher Education Institutions consistently transmitted suggestions from the BUT academic community for discussion in the bodies of the Council of Higher Education Institutions and regularly informed the academic community of the university, especially through the academic senates of BUT and its faculties. The AS Legislative Committee dealt with legislative proposals – in particular, it discussed an appendix to the Rules of Procedure of the Internal Evaluation Board BUT, a new version of the BUT Rules of Procedure, and a new version of the BUT Code of Ethics, and it commended and adopted a resolution on the draft Appendix No. 1 to the FIT Statute and the new FME Disciplinary Rules for Students. Furthermore, the LC AS discussed the appendices to the Organisational Regulations of the BUT Rector's office, prepared on the basis of the Rector's concept and concerning changes in the intended agendas of the new Vice-Rectors. The change of agendas is also connected with the adjustment of the competences of the new vice-rectors. As part of the external meeting of the AS, the AS LC discussed the modification of BUT's internal regulations in connection with the continuation of the student mandate in the Faculty AS when the condition of continuing studies in another study programme is met.

The AS Committee for Creative Activities dealt in particular with reviewing the guidelines of the Student Grant Competition for the support of specific university research projects at BUT and adopted resolutions recommending the approval of proposals for the composition of the new BUT Scientific Board, the composition of the Scientific Board of BUT IFE and the Scientific Board of CESA BUT. It also dealt with the issue of funding of science, research and creative activities, in particular the rules for the distribution of the DKRVO IP (Institutional support for the long-term conceptual development of the research organisation) Here, attention was paid to the uses of the distribution of the author's shares of the institutes from 2023 onwards. The issues of this Committee from 2021 onwards include internationalisation, which was the subject of a working session during the external meeting. Through the Vice-Rector for Internationalisation, the Committee was informed about the university's involvement in various university associations and other international activities.

The AS Pedagogical Committee discussed mainly proposals related to study issues, i.e. rules for admissions and evaluation of the quality of teaching at university institutions.

In 2022, the AS mainly discussed and approved the proposals listed below, all AS meetings (except for the AS external meeting in Valeč) included information from the BUT management, the Council of Higher Education Institutions and the AS Student Chamber.

AS BUT No. 1/2022 of 18 January 2023 (remote meeting)

- Information on the preparation of the BUT Budget Rules for 2022
- Proposal for a new CESA Scientific Board
- Evaluation of the quality of teaching in the BPC-STC study programme at CESA BUT in the summer semester (discussion)
- Appointment of the AS representative in the selection committee for the position of academic staff member for the Department of Risk Engineering at IFE

AS BUT No. 2/2022 of 15 February 2023 (remote meeting)

- Rector's proposal for the composition of the team of Vice-Rectors for the term of office February 2022 to January 2026
- Appendix No. 3 to the Organisational Regulations of the BUT Rector's office
- Rector's decision – fee for admission to BUT
- Information on the preparation of the BUT Budget Rules for 2022
- Nomination of a representative of the Faculty of Architecture for membership of the BUT Ethics Committee – Resolution of the AS Faculty of Architecture of BUT
- Evaluation of the quality of teaching in the summer semester in the BPC-STC study programme at CESA BUT (approval)
- Proposal of the Chairman of the Coordinating Trade Union Council of the University Trade Union of BUT (CTUC BUT) for cooperation between AS BUT and CTUC BUT
- Information on the preparation of the AS BUT external meeting – specification of time and place

AS BUT No. 3/2022 of 15 March 2023 (on-site meeting)

- Information on the preparation of the BUT Budget Rules for 2022
- Property matters – application of FEEC for establishment and entry into a registered association – Český bateriový klastr, z. s.
- Rector's proposal to nominate a representative of the Faculty of Architecture for membership of the BUT Ethics Committee
- Rector's proposal for the composition of the new BUT Scientific Board
- Rector's proposal for the composition of the new BUT Disciplinary Committee
- Appointment of AS representatives for working meetings with the BUT Rector
- Resolutions of the EC of the AS BUT and Resolutions of the AS BUT

AS BUT No. 4/2022 of 12 April 2022 (on-site meeting)

- Rules for the preparation of the BUT budget for the calendar year 2022
- Property matters – requests for comments on easement agreements
- Annual Report on the Activities of the BUT for 2021 (submission)
- Rules of the BUT Internal Student Support Fund for 2022
- Supplementation of the BUT Scientific Council by two internal members
- Appendix No. 1 to IFE Directive No. 7/2021 – Conditions for admission to study for the academic year 2022/2023 in the follow-up master's degree programmes Real Estate Engineering, Expert Engineering in Transport and Risk Management of Technical and Economic Systems at IFE BUT
- Proposal for the composition of the IFE Scientific Board (submission)

AS BUT No. 5/2022 of 10 May 2022 (on-site meeting)

- Preparation of the BUT Budget for 2022
- Reproduction Programme – Programme Status Report 133 220
- Annual Report on BUT Activities for 2021
- Annual Report on BUT Management for 2021
- Proposal for the composition of the IFE Scientific Board (discussion)
- Disciplinary Rules of the Faculty of Mechanical Engineering of BUT for Students
- Appendix No. 2 to IFE Directive No. 7/2021 – Conditions for admission to study for the academic year 2022/2023

in the follow-up master's degree programmes Real Estate Engineering, Expert Engineering in Transport and Risk Management of Technical and Economic Systems at the IFE BUT

AS BUT No. 6/2022 of 24 May 2022
(extraordinary meeting – on-site meeting)

- BUT budget for 2022
- Appendix No. 1 to Instruction No. 2/2021 – Admission Procedure Rules and Conditions for Admission to Study in the distance study programme Advanced Materials and Nanosciences at CEITEC BUT for the academic year 2022/2023

AS BUT No. 7/2022 of 30 June 2022
(external meeting of the AS BUT – Valeč)

- Termination of AS membership of Ing. arch. Diana Hodulíková due to successful completion of her studies at the Faculty of Architecture of BUT and handing over the Certificate of Membership in the AS to her alternate Ing. arch. Adéla Šoborová, elected to the AS of FA in November 2020
- Discussion of budgets of university institutes and non-faculty departments of BUT
- Property matters – exchange agreement with the Statutory City of Brno (exchange of land), establishment of easements
- Appendix No. 4 to the Organisational Regulations of the BUT Rector's office
- Modification of the BUT internal regulation in connection with the continuation of a student's mandate in the faculty's AS when the condition of continuing studies in another study programme is met
- Appendix to the BUT Quality Assurance and Internal Evaluation Report for 2021
- Admission procedure rules and conditions for admission to study in the Bachelor's degree programme Sport Technology for the academic year 2023/2024 at CESA BUT
- Final report Evaluation of the quality of teaching by CESA BUT students in the study programme Sports Technology in the winter semester 2021/2022
- Plan of implementation of the strategic plan of educational and scientific research, development, innovation and other creative activities of CESA BUT for 2022
- Report on the evaluation of teaching in the MSP at IFE BUT in the winter semester of the academic year 2021/2022
- Appointment of the Vice-Chairman of the AS Creative Activities Committee
- Appointment of AS representatives to the selection procedure committees for filling academic, research and development staff positions at IFE BUT
- Election of a new alternate delegate to the Student Chamber of the Council of Higher Education Institutions for the term 2021–2023
- Resolution of the AS BUT on the method of distribution of RUV (Register of Artistic Outputs) and FUČ (Artistic Activities Fund) funds at faculties

AS BUT No. 8/2022 of 13 September 2022 (on-site meeting)

- Resignation of the AS member, Bc. Veronika Špundová, from FFA and handing over the Certificate of Membership in the AS to the elected alternate member of the AS at FFA – Mgr. et. MgA. Martin Žák
- Property matters – establishment of easements
- Appendix No. 3 to the Rules of Procedure of the BUT Internal Evaluation Board
- Appendix No. 1 to the Statute of the Faculty of Information Technology of BUT (rejection of the proposal)
- BUT Rules of Procedure – new wording (submission)
- BUT Code of Ethics – new version (submission)
- Proposal to expand the BUT Ethics Committee (submission)
- Appendix No. 5 to the Organisational Regulations of the BUT Rector's office (submission)
- Successful completion of studies of the FIT representative in the Student Chamber of the Academic Senate, Bc. Viktor Konupčík, and announcement of by-elections to the AS at FIT BUT
- Plan for the implementation of the strategic plan for the IFE educational and creative activities for the year 2022
- Appointment of AS representatives to the selection procedure committees for filling academic, research and development staff positions at CESA BUT
- Resolution of the AS on support of the Rector's decision (misconduct in the publication activity of prof. Vojtěch Adam)

AS BUT No. 9/2022 of 11 October 2022 (on-site meeting)

- BUT consolidated budget for 2022 and BUT medium-term outlook for 2023–2024
- BUT Rules of Procedure – new wording
- BUT Code of Ethics – new version (discussion)
- Proposal to expand the BUT Ethics Committee (discussion)
- Appendix No. 5 to the Organisational Regulations of the BUT Rector's office
- Rector's proposals for the nomination of two new members of the BUT Scientific Board

AS BUT No. 10/2022 of 8 November 2022 (on-site meeting)

- Handing over the Certificate of Membership in the AS to Lukáš Brázdil, elected in the by-election in the FIT student constituency
- Implementation plan for the BUT Strategic Intent 2023
- Information on the preparation of the BUT Budget Rules – proposals for 2023
- BUT Code of Ethics (revised draft) + Proposal for supplementing the BUT Ethics Committee
- Rules for admission to the DSP – CEITEC Advanced Materials and Nanosciences for the academic year 2023/2024
- Guidelines for admission to study in the follow-up master's degree programmes – Real Estate Engineering, Expert Engineering in Transport and Risk Management of Technical and Economic Systems and in DSP – Forensic Engineering at IFE BUT for the academic year 2023/2024
- Appendix No. 1 to the FIT Statutes
- Draft directive Student Grant Competition for Support of Specific Undergraduate Research Projects at the BUT

AS BUT No. 11/2022 of 8 December 2022 (on-site meeting)

- Information on the preparation of the BUT Budget Rules – proposals for 2023
- Appendix No. 6 to the Organisational Regulations of the BUT Rector's office
- Appendix No. 1 to the BUT Salary Policy (submission)
- Appendix No. 1 to the BUT Rules of Procedure (submission)
- Rector's proposal to supplement the BUT Scientific Board with a new Dean of the Faculty of Architecture

Student Chamber of AS BUT

Throughout 2022, the Student Chamber of the AS BUT (hereinafter referred to as SKAS) represented BUT students, defended their interests at the university level and held regular meetings with representatives of student organisations at BUT in order to connect and support each other.

In the context of the conflict in Ukraine, the Student Chamber of the Academic Senate has used its social networks to communicate support and help to all those affected by the situation. The Student Chamber of the Academic Senate also communicated internally with the students, participated in solving crisis situations, e.g. proposals of support for the affected students, communication of the provision of dormitory and canteen facilities for the families of persons at risk, etc. The Student Chamber of the Academic Senate also helped in securing volunteers for the Ukraine aid and for the charity fundraiser Pie for Hospice, to which it also contributed financially.

During the spring, the Student Chamber of the Academic Senate helped coordinate the participation of BUT at the Brno Majáles event, BUT was represented in particular by student Ema Záňová from FBM and student Jan Bolcek from FME.

In cooperation with the Human Resources Department of the Rector's office, the representative of the Student Chamber of the Academic Senate participated in the drafting of the new BUT Code of Ethics, which was approved by the BUT Academic Senate in October.

The Student Chamber of the Academic Senate traditionally recognised the activities of active BUT students through the Internal Student Support Fund. In the first round, a total of twelve proposals were supported out of 25 received. The highest rating was given to the presentation of the new single-seater of the TU Brno Racing student team, then to the BSEC student engineering competition, the doctoral

conference at IFE, the Bohuslav Fuchs Awards at the FA, support activities for FIT students and the BUT team in the university ice hockey league. In the second round at the end of 2022, the Student Chamber of the Academic Senate supported a total of twelve proposals out of 24 received. The organisers of the popularisation lectures of the Science & Technology Club received the highest rating, the orientation events for new students at FIT, FCH, FEEC, FA, and the traditional Music from FEEC were also recognised. Furthermore, the Student Chamber of the Academic Senate appreciated the activities for students of FIT and FCH, and the activities of the student strojLAB workshop.

The representatives of the Student Chamber of the Academic Senate participated in the BUT Záškolák event, where they presented the activities of the Student Chamber of the Academic Senate. The event was again held in two sessions in which prospective and current students could get to know each other and find out information about BUT, faculties, student organisations, sports, etc. The representatives of the Student Chamber of the Academic Senate also participated in the MEYS conference Days of Educational Activities, held in Prague, where the Chairman of the Student Chamber of the Academic Senate actively spoke on the topic of quality of universities.

In October, the Student Chamber of the Academic Senate in cooperation with the Student Chamber of the Council of Higher Education Institutions organised a Conference of Academic Senators at FEEC BUT. At this national meeting of student representatives, the main topics discussed were the amendment to the Higher Education Act and its impact, quality at universities, the inclusion of new student senators and 21 priorities for the university of the 21st century. The conference's distinguished guests were Robert Plaga, Chairman of the Board of the National Accreditation Bureau for Higher Education, Jiří Nantl, Director of CEITEC MU, Bálint Lovász, student representative of the Slovak Accreditation Agency for Higher Education, and Ladislav Janíček, BUT Rector. The informal networking part of the programme took place in the student club U Kachničky at FIT.

In November, the 83rd General Assembly of the European Student Union (ESU) took place in Prague, the organising was undertaken by the Student Chamber of the Council of Higher Education Institutions and BUT was represented significantly in the organising team of the event (A. Kruljacová, K. Rovenská, M. Horváth, M. Tesařová). The event lasted for five days, during the days of seminars the Vice Chairman of the Student Chamber of the Academic Senate spoke in a panel discussion; the other three days were meeting days. This pan-European gathering of national student representatives concluded with a celebration of 17 November. The representatives of the Student Chamber of the Academic Senate and the BUT delegate in the Student Chamber of the Council of Higher Education Institutions actively participated in events in Prague (laying wreaths at Hlávkova hall of residence, march and commemorative act in Žitná Street, commemorative event in Albertov) and in Brno on Svobody Square, where, along with representatives of other Brno universities, they laid wreaths at the Plague Column to commemorate 17 November.

After a two-year hiatus, the Student Chamber of the Academic Senate BUT participated in the organisation of the BUT Ball, which in 2022 had the theme of winter fairy tales. As is traditional, the ball was held on the BVV premises and was attended by more than 3,600 people. The BUT Ball was followed by an external meeting of the Student Chamber of the Council of Higher Education Institutions, which the Student Chamber of the Academic Senate BUT hosted on the premises of FEEC BUT. At the end of the year, the celebration of the 30th anniversary of the establishment of the Student Chamber of the Council of Higher Education Institutions was held in the BUT Rector`s office hall. During the celebrations, a publication describing the history of the Student Chamber of the Council of Higher Education Institutions was launched and speeches were made by distinguished guests from the higher education sector of the Czech Republic and abroad.

AS external meeting held on 28–30 June 2022

In 2022, the Academic Senate held its traditional external meeting at the Zámek Valeč hotel. The aim of the AS external meeting was to enable substantive discussions of related topics in the AS and further outline the cooperation between the new BUT management and the AS based on the basic principles of academic self-government of universities. In February 2022, the new Rector of BUT, doc. Ing. Ladislav Janíček, Ph.D., MBA, LL.M., elected by the Academic Senate for the next term of office from February 2022 to January 2026, took office together with his new team of Vice-Rectors, including the newly appointed Bursar of BUT. The external meeting thus featured interesting presentations by the new members of the BUT management, who presented to the AS their new plans and suggestions for changes in their respective areas of the university management.

This year's meetings between the AS and BUT management regarding the economy – discussions on the preparation of the new BUT budget concept for 2023, funding of studies and the related new concept of science and research – can also be considered crucial. Furthermore, the budgets of the BUT non-faculty departments were approved; these were discussed in advance by the EC AS, and the issue of land exchange between BUT and the Statutory City of Brno was dealt with – upon the invitation of the new Bursar, Mgr. Ing. Daniela Němcová, detailed information was presented by the head of the Property and Energy Administration, Ivan Culek. We should also mention the negotiations between AS and the BUT management on draft Appendix No. 4 to the Organisational Regulations of the BUT Rector's Office following the upcoming organisational changes and changes in activities at the faculties and departments of BUT. In the area of BUT legislation, the issue of the continuation of a student's mandate in the faculty's AS when the condition of continuing studies in another study programme is met was discussed in detail. In the block of the meeting belonging to the framework of the AS Committee for Creative Activities, the key presentations were made by the Vice-Rector for Creative Activities and the Vice-Rector for Internationalisation, who introduced their plans for the upcoming period in their presentations, followed by an extensive discussion on the issue.

The programme continued to cooperate with the Council of Higher Education Institutions in the most important areas of its activities, i.e. in particular in the areas of economics, legislation and the scientific activities of universities. A significant contribution was the participation of the BUT representatives in the Council of Higher Education Institutions (who are also members of AS) and especially, remotely, the participation of guests from the Council of Higher Education Institutions . The Chairwoman of the Economic Committee of the Council of Higher Education Institutions JUDr. Valová, Chairwoman of the Scientific Committee of the Council of Higher Education Institutions doc. Radová and the Chairman of the LC of the Council of Higher Education Institutions JUDr. Hodulík gave their presentations on the respective areas of activity of the committees of the Council of Higher Education Institutions. Presentations and discussions with representatives of the Council of Higher Education Institutions were also attended remotely by the Chairman of the Student Chamber of the Council of Higher Education Institutions Ing. Farník. Despite the workload, the representatives of the Council of Higher Education Institutions actively participated in the external meeting and, through their presentations, informed AS members about the current developments in the field of the Council of Higher Education Institutions.

Chairman of the Pedagogical Committee of AS, doc. Steinbauer made a presentation to AS members regarding his proposal for changes in the method of sending documents submitted to AS for discussion and the proposal to use SharePoint in the computerisation of AS processes (storing documents on SharePoint sites created for their registration for AS members). This change was subsequently put into practice and AS documents are continuously stored on the AS SharePoint site, with the possibility of commenting on submitted proposals.

Chairwoman of the Student Chamber of AS Ing. Anna Kruljacová informed members in detail about the activities of the Student Chamber of AS and the issues of studies and student affairs. The information from the area of activities of the Student Chamber of the Council of Higher Education Institutions was presented by the BUT delegate, who is the Vice-Chairman of the Student Chamber of the Council of Higher Education Institutions, Bc. Martin Horváth.

In addition to the participation of the majority of AS members, the participation of all members of the BUT management – the Rector, the Bursar, the Vice-Rectors and the Chancellor – can be evaluated very positively. As always, the seminar showed the significant benefit of productive and constructive discussions, during which the participants of the external meeting held detailed discussions on all the major areas of the activities and management of the university according to the pre-prepared agenda. The main outcomes of the external meeting still include the standard AS meeting, at which the relevant resolutions were adopted in relation to the areas discussed and the proposals submitted to the AS for discussion/approval.

2 Basic information about the university

2.1 The full name of the university, the commonly used abbreviation, the seat of the university and all departments

Brno University of Technology
BUT
Antonínská 548/1, 601 90 Brno
www.vut.cz

Faculties (sorted by establishment)

Faculty of Civil Engineering BUT
FCE
Veveří 331/95, 602 00 Brno
www.fce.vutbr.cz

Faculty of Mechanical Engineering BUT
FME
Technická 2896/2, 616 69 Brno
www.fme.vutbr.cz

Faculty of Electrical Engineering and Communication BUT
FEEC
Technická 3058/10, 616 00 Brno
www.fekt.vut.cz

Faculty of Architecture BUT
FA
Poříčí 237/5, 639 00 Brno
www.fa.vutbr.cz

Faculty of Chemistry BUT
FCH
Purkyňova 464/118, 612 00 Brno
www.fch.vut.cz

Faculty of Business and Management BUT
FBM
Kolejní 2906/4, 612 00 Brno
www.fbm.vutbr.cz

Faculty of Fine Arts BUT
FFA
Údolní 244/53, 602 00 Brno
www.favu.vut.cz

Faculty of Information Technology BUT
FIT
Božetěchova 1/2, 612 66 Brno
www.fit.vut.cz

University Institutes

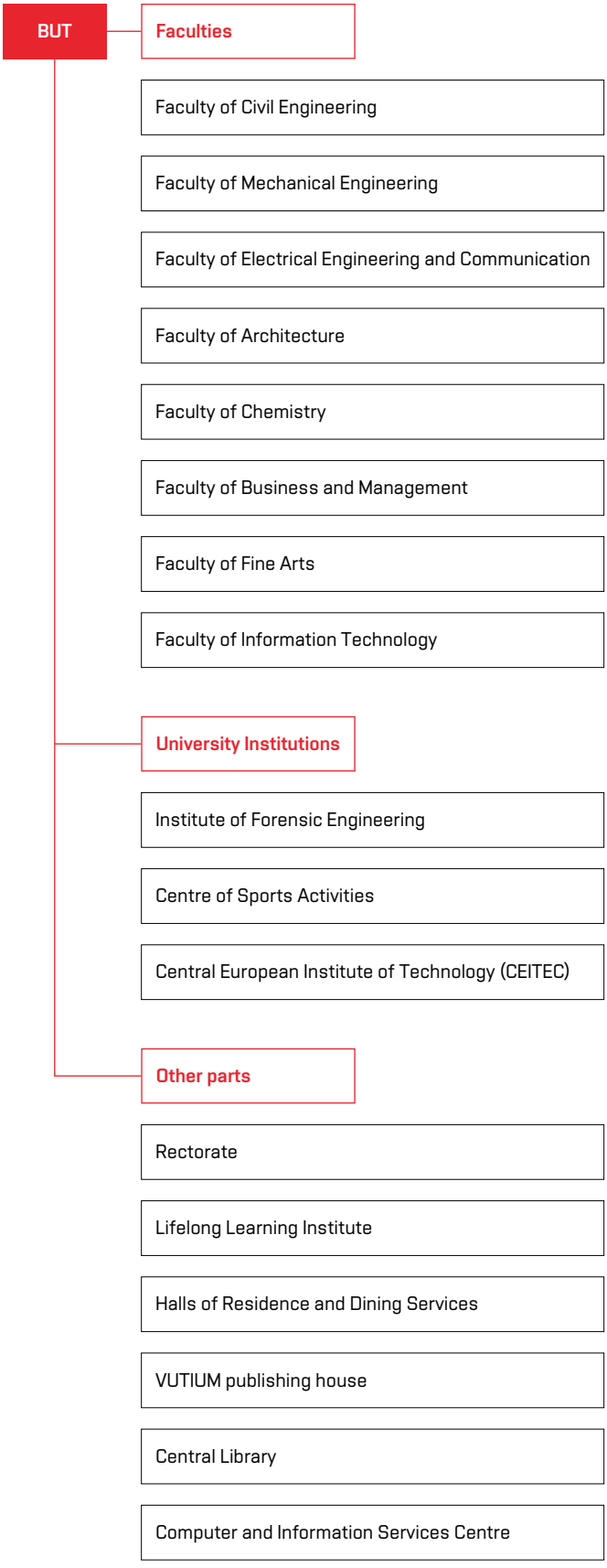
Institute of Forensic Engineering BUT
IFE
Purkyňova 464/118, 612 00 Brno
www.usi.vutbr.cz

Centre of Sports Activities BUT
CESA
Technická 2896/2, 616 69 Brno
www.cesa.vutbr.cz

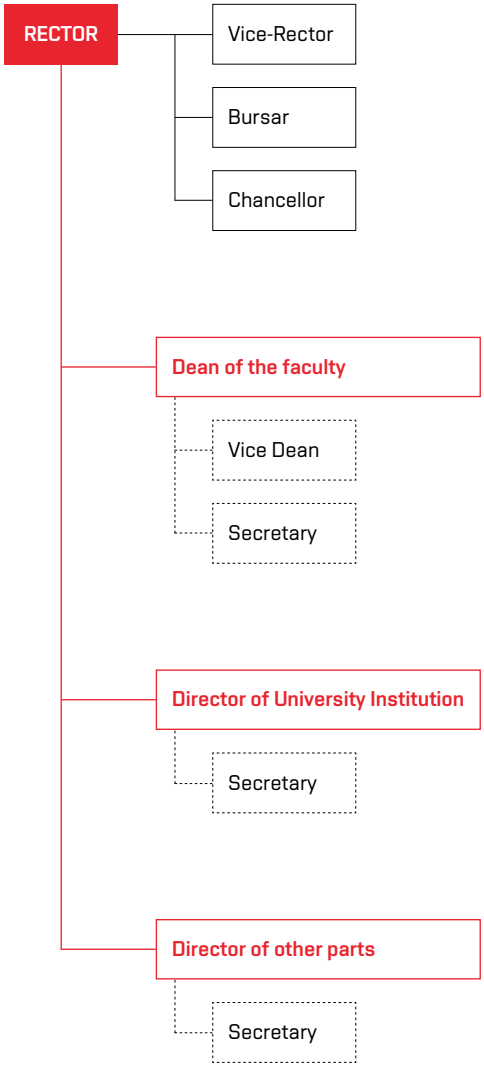
Central European Institute of Technology BUT
CEITEC
Purkyňova 656/123, 612 00 Brno
www.ceitec.cz

2.2 University organisation chart

Organizational chart of BUT



Management structure of BUT



2.3 Composition of the Scientific Board, the Board of Trustees, the Academic Senate and other university bodies

BUT Scientific Board until 13 February 2022

Chairman

- prof. RNDr. Ing. Petr Štěpánek, CSc.

Members

- prof. RNDr. Vladimír Aubrecht, CSc.
- prof. Ing. Miroslav Bajer, CSc.
- doc. Ing. Vojtěch Bartoš, Ph.D.
- doc. MgA. Filip Cenek
- prof. RNDr. Miroslav Doupovec, CSc.
- Ing. Karel Endlicher
- Ing. Miloš Filip
- prof. akad. sochař Michal Gabriel
- prof. Ing. Lubomír Grmela, CSc.
- prof. Ing. Martin Hartl, Ph.D.
- Ing. Roman Havlín
- prof. Ing. Jiří Hirš, CSc.
- prof. PeadDr. Radek Horáček, Ph.D.
- doc. MgA Milan Houser
- doc. Ing. arch. Jan Hrubý, CSc.
- prof. Ing. arch. Petr Hrůša
- prof. Ing. Tomáš Hruška, CSc.
- doc. Ing. Jaroslav Katolický, Ph.D.
- Ing. Jaroslav Klíma
- doc. Ing. Karel Kouřil, Ph.D.
- Ing. arch. MArch Jan Kristek, Ph.D.
- prof. Ing. Jiří Málek, DrSc.
- prof. RNDr. Ivana Márová, CSc.
- Ing. Ilona Müllerová, DrSc.
- prof. Ing. Drahomír Novák, DrSc.
- Ing. Eduard Palíšek, Ph.D., MBA
- doc. RNDr. Juraj Pančík, Ph.D.
- prof. Ing. Karel Pospíšil, Ph.D., LL.M.
- prof. Ing. Karel Rais, CSc., MBA
- prof. Ing. Robert Redhammer, PhD.
- prof. Ing. Mária Režňáková, CSc.
- Ing. Dětřich Robenek
- prof. Ing. Petr Sáha, CSc.
- prof. Ing. Lukáš Sekanina, Ph.D.
- Ing. Martin Slezák
- prof. RNDr. Tomáš Šikola, CSc.
- prof. Ing. et Ing. Stanislav Škapa, Ph.D.
- prof. Ing. arch. Vladimír Šlapeta, DrSc.
- prof. Ing. Pavel Václavek, Ph.D.
- doc. Ing. Aleš Vémola, Ph.D.
- prof. RNDr. Peter Vojtáš, DrSc.
- prof. MVDr. Lenka Vorlová, Ph.D.
- prof. Ing. Radimír Vrba, CSc.
- prof. Ing. Martin Weiter, Ph.D.
- prof. Dr. Ing. Pavel Zemčík

BUT Scientific Board since 15 March 2022

Chairman
(Date of appointment)

- doc. Ing. Ladislav Janíček, Ph.D., MBA, LL.M. (15/03/2022)

Members
(Date of appointment)

- prof. RNDr. Vladimír Aubrecht, CSc. (15/03/2022)
- prof. Ing. Miroslav Bajer, CSc. (15/03/2022)
- doc. Ing. Vojtěch Bartoš, Ph.D. (15/03/2022)
- doc. MgA. Filip Cenek (15/03/2022)
- prof. Ing. Libor Čapek, Ph.D. (15/03/2022)
- prof. RNDr. Miroslav Doupovec, CSc. (15/03/2022)
- prof. Ing. Rostislav Drochytka, CSc., MBA, dr. h. c. (15/03/2022)
- Ing. Karel Endlicher (15/03/2022)
- prof. akad. sochař Michal Gabriel (12/04/2022)
- prof. Ing. Martin Hartl, Ph.D. (15/03/2022)
- doc. Ing. Jiří Hlinka, Ph.D. (15/03/2022)
- prof. PeadDr. Radek Horáček, Ph.D. (15/03/2022)
- doc. MgA. Milan Houser (15/03/2022)
- prof. Mgr. Tomáš Kašparovský, Ph.D. (07/11/2022)
- Ing. Jaroslav Klíma (15/03/2022)
- prof. Ing. Alena Kocmanová, Ph.D. (07/11/2022)
- doc. Ing. Karel Kouřil, Ph.D. (12/04/2022)
- prof. MUDr. Milena Králíčková, Ph.D. (15/03/2022)
- Ing. arch. MArch Jan Kristek, Ph.D. (15/03/2022–13/12/2022)
- prof. RNDr. Ivana Márová, CSc. (15/03/2022)
- prof. Ing. Alois Materna (15/03/2022)
- Ing. Ilona Müllerová, DrSc. (15/03/2022)
- Ing. Eduard Palíšek, Ph.D., MBA 15/03/2022)
- doc. Ing. Jan Pěnčík, Ph.D. (15/03/2022)
- doc. RNDr. Vojtěch Petráček, CSc. (15/03/2022)
- prof. JUDr. Radim Polčák, Ph.D. (15/03/2022)
- prof. Ing. Karel Pospíšil, Ph.D., LL.M. (15/03/2022)
- prof. Ing. Milan Pospíšil, CSc. (15/03/2022)
- prof. Ing. Ivo Provazník, Ph.D. (15/03/2022)
- prof. Dr. Ing. Zbyněk Raida (15/03/2022)
- prof. Ing. Petr Sáha, CSc. (15/03/2022)

- prof. Ing. arch. Michal Sedláček (15/03/2022)
- prof. Ing. Lukáš Sekanina, Ph.D. (15/03/2022)
- prof. Ing. Antonín Slaný, CSc. (15/03/2022)
- prof. RNDr. Václav Snášel, CSc. (15/03/2022)
- prof. Ing. Petr Stehlík, CSc., dr. h. c (15/03/2022)
- RNDr. Petr Střelec (15/03/2022)
- Ing. arch. Radek Suchánek, Ph.D. (14/12/2022)
- prof. RNDr. Tomáš Šikola, CSc. (15/03/2022)
- doc. PhDr. Iveta Šimberová, Ph.D. (15/03/2022)
- prof. Ing. arch. Vladimír Šlapeta, DrSc. (15/03/2022)
- prof. Ing. Josef Štětina (15/03/2022)
- prof. Ing. Pavel Václavek, Ph.D. (15/03/2022)
- prof. Ing. Michal Veselý, CSc. (15/03/2022)
- prof. MVDr. Lenka Vorlová, Ph.D. (15/03/2022)
- prof. Ing. Radimír Vrba, CSc. (15/03/2022)
- prof. Ing. Martin Weiter, Ph.D. (15/03/2022)
- prof. Dr. Ing. Pavel Zemčík, dr. h. c. (15/03/2022)

BUT Board of Trustees

Chairman
(Membership from–to)

- Ing. ThLic. Evžen Lukáš Martinec, Ph.D., MBA (25. 10. 2019 – 25. 10. 2026)

Members
(Membership from–to)

- Ing. Eva Bartoňová (02/08/2021 – 02/08/2027)
- Ing. Vladimír Dlouhý, CSc., MBA (21/05/2018 – 21/05/2024)
- Mgr. Jan Grolich (06/05/2021 – 06/05/2027)
- Ing. Jaroslav Klíma (21/05/2018 – 21/05/2024)
- Ing. Miloslav Kopeček (21/05/2018 – 21/05/2024)
- PhDr. Miroslava Kopicová (06/05/2021 – 06/05/2027)
- František Mikš (01/09/2022 – 01/09/2028)
- doc. JUDr. PhDr. Petr Mlsna, Ph.D. (06/05/2021 – 06/05/2027)
- Mgr. Stanislav Moša (03/06/2019 – 03/06/2025)
- Ing. Jiří Nekovář, Ph.D. (02/08/2021 – 02/08/2027)
- Ing. Eduard Palíšek, Ph.D., MBA (21/05/2018 – 21/05/2024)
- Ing. Petr Vokřál (21/05/2018 – 21/05/2024)
- doc. Ing. Jiří Volf, CSc. (03/06/2019 – 03/06/2025)
- prof. MUDr. Jiří Vorlíček, CSc., dr. h. c. (02/08/2021 – 02/08/2027)

BUT Disciplinary Committee

Chairman

- prof. RNDr. Miroslav Doupovec, CSc., dr. h. c.

Members

- doc. PhDr. Iveta Šimberová, Ph.D.
- doc. MgA. Milan Houser
- Ing. Daniel Janík
- Ing. Martin Rak
- Ing. Katarína Rovenská

BUT Internal Evaluation Board

Chairman

- doc. Ing. Ladislav Janíček, Ph.D., MBA, LL.M.

Members

- prof. Ing. Tomáš Hruška, CSc.
- prof. Ing. Jiří Burša, Ph.D.
- prof. RNDr. Miroslav Doupovec, CSc., dr. h. c.
- prof. Ing. Eva Gescheidtová, CSc.
- prof. Ing. Lubomír Grmela, CSc.
- doc. Dr. Ing. Petr Hanáček
- doc. Ing. Jan Jandora, Ph.D.
- Ing. Anna Kruljacová, M.Sc.
- prof. Ing. Alois Materna, CSc., MBA
- prof. Ing. Jindřich Petruška, CSc.
- prof. Ing. Mária Režňáková, CSc.
- prof. Ing. et Ing. Stanislav Škapa, Ph.D.
- prof. Ing. arch. Vladimír Šlapeta, DrSc.
- prof. Ing. Josef Štětina, Ph.D.

BUT Academic Senate – term of office – from June 2021 to June 2024

Chairman

- doc. Dr. Ing. Petr Hanáček

Vice-Chairpersons

- doc. Ing. Tomáš Opravil, Ph.D.
- Ing. Anna Kruljacová, MSc.

Chamber of Academic Staff of AS BUT

Chairperson of the Chamber

- doc. Ing. Tomáš Opravil, Ph.D.

Members

- doc. Mgr. Tomáš Apeltauer, Ph.D. (until 01/02/2022)
- Ing. Petr Beneš, CSc.
- doc. Ing. arch. Ivo Boháč, Ph.D.
- doc. Ing. Pavel Diviš, Ph.D.
- Ing. arch. Nicol Galeová
- doc. Dr. Ing. Petr Hanáček
- MgA. Ondřej Homola
- MgA. Tomáš Hrůza
- doc. Ing. Jiří Jaroš, Ph.D.
- prof. Ing. Alena Kocmanová, Ph.D.
- Ing. Pavel Krečmer, Ph.D.
- Mgr. Bc. Helena Musilová
- RNDr. Pavel Popela, Ph.D.
- doc. Ing. Vlasta Sedláková, Ph.D.
- doc. Ing. Miloslav Steinbauer, Ph.D.
- prof. Ing. Josef Štětina, Ph.D.
- prof. Ing. Jiří Vala, CSc. (since 15/02/2022)
- prof. Ing. Martin Trunec, Dr.

Student Chamber of AS BUT

Chairperson of the Chamber

- Ing. Anna Kruljacová, MSc.

Members

- Lukáš Brázdil (since 08/11/2022)
- Bc. Diana Hodulíková (until 08/06/2022)
- Ing. Daniel Janík
- Viktor Konupčík (until 24/08/2022)
- Ing. Petra Kosová
- Ing. Katarína Rovenská – Vice-Chairwoman
- Ing. Daniel Skřek
- Ing. arch. Adéla Šoborová (since 30/06/2022)
- Bc. Veronika Špundová (until 07/09/2022)
- Ing. Jan Zahrádka
- Mgr. et MgA. Martin Žák (since 13/09/2022)

Permanent guests of AS BUT

- Ing. Albert Bradáč, Ph.D. – IFE BUT
- PaedDr. Milan Slezáček – CESA BUT

Working Committee of AS BUT

Legislative Committee

Chairperson

- Mgr. Bc. Helena Musilová

Members

- doc. Ing. arch. Ivo Boháč, Ph.D.
- RNDr. Pavel Popela, Ph.D.
- doc. Ing. Miloslav Steinbauer, Ph.D.
- prof. Ing. Jiří Vala, CSc. (since 15/02/2022)

Students

- Bc. Diana Hodulíková (until 08/06/2022)
- Viktor Konupčík (until 24/08/2022)
- Ing. Petra Kosová
- Ing. Anna Kruljacová, MSc.
- Ing. Jan Zahrádka

Economic Committee

Chairman

- RNDr. Pavel Popela, Ph.D.

Members

- doc. Mgr. Tomáš Apeltauer, Ph.D. (until 01/02/2022)
- Ing. Petr Beneš, CSc.
- doc. Ing. arch. Ivo Boháč, Ph.D. (since 30/06/2022)
- doc. Ing. Pavel Diviš, Ph.D.
- Ing. arch. Nicol Galeová – Vice-Chairwoman
- MgA. Ondřej Homola
- MgA. Tomáš Hrůza
- doc. Ing. Jiří Jaroš, Ph.D.
- prof. Ing. Alena Kocmanová, Ph.D.
- Ing. Pavel Krečmer, Ph.D.
- doc. Ing. Tomáš Opravil, Ph.D.
- doc. Ing. Vlasta Sedláková, Ph.D.
- doc. Ing. Miloslav Steinbauer, Ph.D.
- prof. Ing. Josef Štětina, Ph.D.
- prof. Ing. Martin Trunec, Dr.
- prof. Ing. Jiří Vala, CSc. (since 15/03/2022)

Students

- Bc. Diana Hodulíková (until 08/06/2022)
- Ing. Daniel Janík
- Viktor Konupčík (until 24/08/2022)
- Ing. Anna Kruljacová, MSc.
- Ing. Katarína Rovenská
- Ing. Daniel Skřek
- Ing. arch. Adéla Šoborová (since 13/09/2022)
- Ing. Jan Zahrádka

Pedagogical Committee

Chairman

- doc. Ing. Miloslav Steinbauer, Ph.D.

Members

- Ing. Petr Beneš, CSc.
- doc. Ing. arch. Ivo Boháč, Ph.D.
- MgA. Ondřej Homola
- Mgr. Bc. Helena Musilová

Students

- Ing. Daniel Janík
- Viktor Konupčík (until 24/08/2022)
- Ing. Petra Kosová
- Ing. Katarína Rovenská
- Ing. Daniel Skřek
- Ing. Jan Zahrádka

Committee for Creative Activities

Chairman

- prof. Ing. Josef Štětina, Ph.D.

Members

- doc. Mgr. Tomáš Apeltauer, Ph.D. – Vice-Chairman (until 01/02/2022)
- doc. Ing. arch. Ivo Boháč, Ph.D.
- Ing. arch. Nicol Galeová
- MgA. Tomáš Hrůza
- doc. Ing. Jiří Jaroš, Ph.D.
- Ing. Pavel Krečmer, Ph.D.
- doc. Ing. Tomáš Opravil, Ph.D.
- doc. Ing. Vlasta Sedláková, Ph.D. – Vice-Chairwoman (since 30/06/2022)
- doc. Ing. Miloslav Steinbauer, Ph.D.
- prof. Ing. Jiří Vala, CSc. (since 15/03/2022)

Students

- Ing. Petra Kosová
- Ing. Anna Kruljacová, MSc.
- Ing. Katarína Rovenská

2.4 Representation of BUT in the Representation of Universities

Czech Rectors' Conference

- prof. RNDr. Ing. Petr Štěpánek, CSc., dr. h. c. (until 31/01/2022)
- doc. Ing. Ladislav Janíček, Ph.D., MBA, LL.M. (since 01/02/2022)

Council of Higher Education Institutions (RVŠ)

BUT representatives in the Council of Higher Education Institutions

- RNDr. Pavel Popela, Ph.D.

Member of the Council of Higher Education Institutions Assembly for BUT

- Mgr. Bc. Helena Musilová

Members of the Council of Higher Education Institutions Assembly for BUT faculties

- Ing. arch. Nicol Galeová (FA)
- Ing. Ivana Jakubová (FEEC)
- doc. Mgr. Richard Fajnor (FFA)
- Ing. Radek Kočí, Ph.D. (FIT)
- doc. Ing. Jana Korytárová, Ph.D. (FCE)
- Ing. Pavel Mráček, Ph.D. (FBM)
- doc. Ing. Tomáš Opravil, Ph.D. (FCH)
- doc. Ing. Jan Roupec, Ph.D. (FME)

Members of the Student Chamber of the Council of Higher Education Institutions

- Bc. Martin Horváth – delegate
- Bc. Diana Hodulíková – alternate (until 08/06/2022)
- Ing. Katarína Rovenská – alternate (since 30/06/2022)

2.5 Changes to internal regulations in 2022

Rules of Procedure of the BUT Internal Evaluation Board

- amended by Appendix No. 3 effective as of 14 October 2022

BUT Rules of Procedure

- have been issued completely new with effect as of 25 November 2022

3 Study programmes, study organisation and educational activities

3.1 Total number of accredited study programmes described by the learning outcomes methodology

In 2022, the BUT used the learning outcomes methodology in the development of newly accredited programmes. Within the framework of institutional accreditation, six programmes were newly approved for implementation in 2022, and one additional programme was granted accreditation by the National Accreditation Bureau for Higher Education.

In total, the BUT has 333 study programmes.

3.2 The role of the application sphere in the design and implementation of study programmes

In a number of the study programmes at BUT, experts from practice participate in teaching: for example, in all study programmes at FME and FA, in all professionally oriented programmes at FBM and also in a number of programmes at FCH, FEEC, FCE and FIT. Experts from practice are often members of committees for state final examinations and thesis defences, for example, at FA and FFA the participation of external experts in committees is quite common.

At FCH, the patrons of study programmes are also appointed from among the representatives of the application sphere. Cooperation with patrons from the application sphere is used in the implementation of practical training and internships and the listing of topics of final theses. The faculty organises a traditional event promoting cooperation with the application sphere – Chemistry Day, which is attended by representatives of major industrial partners collaborating with the faculty. The event is intended for both students of the faculty and the general public, especially secondary school students who are faced with a choice of future profession. In 2022, the event focused on a discussion with representatives of companies on the alignment of the requirements of practical training with the composition of special subjects in study programmes and the profiles of graduates. Representatives of collaborating companies and enterprises are now also present on the boards of both bachelor's and master's degree study programmes.

Selected study programmes at BUT have professional practical training incorporated directly into their curriculum, with specific companies participating in the implementation of such practical training. For example, at FA, students of follow-up study programmes are required to complete an internship in an architectural office.

Students' final theses are also often based on themes drawn from their internship or the results of their theses can be incorporated in practice in the future. For example, at FBM, students' work often results in a real business plan, and the faculty also organises consulting workshops during which students solve the problems of real companies. The companies are involved in the teaching of professional study programmes, but also, for example, in the development of the Business Process Management Laboratory used in teaching (especially within the professional study programme Process Management – cooperation with OR-CZ, spol. s r. o.). Furthermore, in cooperation with companies, student internships are organised directly in companies and in workshops for students. There is also a multimedia laboratory Studio, which was created in cooperation with 6eye studio, s. r. o., to support the digitisation of teaching activities, the implementation of online workshops, conferences and seminars and the creation of multimedia materials in marketing-oriented courses. Experts from practice are also members of the study programme boards and are members of the annual examination boards for the state final exam.

The Institute of Forensic Engineering also provides a wide space for connecting students with practice. In 2022, educational tours to DB Schenker and IDS JmK were carried out, accompanied by expert lectures. Experts from practice (RCE systems s. r. o., Cross Zlín, a.s., Ramet, a. s., and others)

are involved in teaching selected professional subjects, other experts also act a. s.pervisors or opponents of diploma theses.

The prestigious bachelor's professional study programme Professional Pilot, sponsored by the Aeronautical Institute, is held at FME, and its students routinely meet a number of experts from practice.

The Centre of Sports Activities is involved in the implementation of the Sports Technology study programme, and there are a number of contracts with the application sphere for the implementation of practical training and experts from practice participate in the teaching of compulsory and compulsory elective courses.

FFA regularly cooperates with companies from the creative industries (especially from the games and design industries) in the form of student internships and practical training.

FIT organises the traditional ŽijemeIT conference, where partners present professional papers in IT areas they deal with in the industry.

At FCE, the intention to implement a study programme is under discussion by the FCE Industrial Council, which ensures the inclusion of practical subjects and the involvement of experts from practice in teaching. The same goal is pursued by FCE's cooperation with the Czech Chamber of Authorised Engineers and Technicians in Construction. At the same time, the faculty cooperates with the Czech Association of Civil Engineers and major institutions in the field of civil engineering.

Each new study programme at BUT is subject to approval by the scientific board of the relevant faculty, with representatives of practice being external members of the boards. An obligatory part of the subsequent discussion of a study programme in the BUT Internal Evaluation Board are opinions from external evaluators – for professionally oriented study programmes it is directly required that at least one opinion be prepared by a representative from practice. The representatives of the commercial sphere also participate on study programme boards.

Each study programme is subject to periodic evaluation (at least once during the validity of the accreditation), and the programme guarantor must prepare an evaluation report. The involvement of representatives from practice in educational activities is specifically described in these evaluation reports.

3.3 Other significant educational activities (apart from the implementation of accredited study programmes)

BUT offers education, for example, in the form of a University of the Third Age – seniors are actively involved in courses such as Technology in a Nutshell, Take Good Pictures with a Mobile Phone, Chemistry in Everyday Life and Interesting Facts about Water Structures. The Lifelong Learning Institute and a number of faculties and departments offer lifelong learning courses.

In 2022, FA hosted an international workshop within the RES URBANAE project of the Creative Europe programme focusing on urban reconversion and renewal; an international summer school in cooperation with the European Humanities University; an international summer school on Tampered Clay and Columbarium Construction; the 11th Annual Conference on Architecture and Urbanism 2022: New Research Directions in the Volatile World); the online conference FA BUT Czech Republic and the International Design Colloquium 2022 Brno University Technology and UTM Architecture.

At its studios, FFA offered for example, afternoon courses in drawing, sculpture, digital illustration and drawing nudes and the figure. During the holidays, interested students could take part in summer schools in sculpture, game design, electronic music, painting, body design, lithography, permaculture and botany and art. FFA also actively tries to promote interest in visual arts through its exhibitions held throughout the year in the faculty gallery on the ground floor of the building and the possibility of long-term loans of students' works to other BUT premises.

The Institute of Forensic Engineering, as in previous years, organised the annual international conference of experts in technical and technical-economic fields ExFoS (Expert Forensic Science). In addition to the traditional long-term courses aimed at preparing candidates for obtaining an expert's qualification, in 2022 IFE also focused on developing the knowledge and skills of experts who are already carrying out activities and adapting to the new conditions in the field of expert services. For these trainees, the Institute prepared two courses in total, which served to clarify the procedures for dealing with expert opinions so that they meet the demanding requirements of the new expert law. The other two courses focused on the application of new requirements in the area of property valuation and the assessment of property damage.

FBM organised, among other things, a Qualitative Research Workshop within the Inprofo Consulting programme focused on the strategic development of Art, s. r. o., with a focus on the SaaS product Eventee.

Every year FIT BUT organises a Summer Computer School for Girls. It is intended for female secondary school students, who have the opportunity to get acquainted with various areas of information technology and its latest trends. Furthermore, this faculty organises what are known as VGS-IT lectures with foreign experts. The BISSIT International Summer School regularly presents current IT topics for international students.

The Juniorstav conference organised at FCE presents the most interesting doctoral theses not only from the Faculty of Civil Engineering of BUT, but also from other universities, and thanks to its overlapping scope it may also attract young researchers from other universities. In 2022, FCH organised the International Student Science Popularisation Conference titled Chemistry and Life. Attracting public interest in technology is also the aim of the Science & Technology Club, which has been active at FME for many years.

In June, the BUT Centre of Sports Activities participated in the organisation of the Measurement Week with the University of Applied Sciences Technikum Vienna, which took place in Brno. As part of their year-long projects, the Austrian students measured the technical aspects of sports technologies they designed themselves.

Furthermore, in 2022, CESA hosted the Summer School of Sports Technologies. It was a three-day hands-on training course for interested secondary school students. The capacity of the summer school was twenty people and the interest from students was double that. The summer school was attended by students from all over the Czech Republic. CESA also offers the U3V Fit Senior programme (currently 40 participants).

In 2022, the Lifelong Learning Institute ran 19 courses for the public, which were attended by 240 participants. In internal staff training, 1,154 people were trained and 119 courses were organised. 1,988 students were educated at U3V on 67 courses.

4 Students

4.1 Measures applied to reduce academic failure rate

In order to reduce the academic failure rate, BUT is already taking steps in relation to potential applicants. All faculties provide detailed information about their study programmes and inform applicants about what awaits them when studying, not only on their websites containing detailed information, but also at higher education trade fairs and in campaigns a. s.condary schools and open door days. Information, often provided by the BUT students themselves, will enable applicants to choose the right study programme with regard to their individual abilities and interests, which is the first prerequisite for successful future studies.

BUT individual faculties offer preparatory courses for their entrance exams and also courses for first-year students before the start of the first semester. Virtually all faculties of Brno University of Technology offer preparatory courses. At FA they organise Talentovky nanečisto, preparatory courses testing talent, which are of great interest. A preparatory talent testing course is also organised by FCE.

As a highly selective school, several times a year FFA allows those interested in studying to meet with the heads of individual studios, where it is possible to have a consultation on their own work and to choose a suitable field of study. This is done in an organised open day (Enter FFA), but candidates are also invited by teachers for individual consultations throughout the academic year. FFA also organises targeted visits to selected secondary schools and organises a series of summer courses for those interested in studying.

Sometimes it is also necessary to balance the initial knowledge of newly admitted students. Students of grammar schools, whose proportion in some faculties is very high, usually have only very marginal technical knowledge. On the contrary, they have a solid knowledge of mathematics and physics, which gives them an advantage in theoretical subjects. The situation is the opposite for technical graduates. At FEEC, first-year students traditionally have the opportunity to supplement any missing knowledge in optional seminars in mathematics, physics and electrical engineering. At FME, first-year students can also enrol in elective courses, such as Selected Chapters in Fundamentals of Design, Selected Chapters in Mathematics, Selected Chapters in Descriptive Geometry and Selected Chapters in Elasticity and Strength. FIT and FBM also organise a seminar on balancing knowledge of mathematics for students beginning their studies. At FCH, they organise preparatory and catch-up courses for students coming from secondary schools. Specifically, they are a Preparatory Course for the Study of Chemistry, Repetition of the Basics of Secondary School Chemistry and Repetition of the Basics of Secondary School Mathematics. FCE regularly organises Spring Preparatory Courses in Mathematics and Physics and a Summer Technical School for their future students.

Teachers in the school-wide follow-up master's degree programmes organised by the Institute of Forensic Engineering also face different levels of initial knowledge in their students. There are interdisciplinary programmes in which students acquire not only technical, but also economic and legal competences. Special attention was paid to the development of the Expert Engineering in Transport study programme in 2022. In the context of the preparation of the application for renewal of accreditation, the findings of the evaluation of teaching by students as well as the findings of academic staff from the implementation of the programme to date were evaluated. These findings have been used to modify the study programme so that students are properly supported, especially in terms of the continuity of teaching, and successfully complete their studies.

At FME and CEITEC BUT, first-year students can address their problems to ambassadors, which are senior students who help their fellow students deal with potential and actual problems related to their studies. At FIT, they have study advisors, FIT staff who advise students on how to comply with all the rules for smooth study, and thus prevent some students from dropping out of school due to ignorance of regulations and rules. The institute of study advisors has also been working at FCH, where every institute has its own advisor. At FA and FCE, they organise an introductory lecture for first-year students, where they acquaint them with the most important rules of study. At FFA, the course Respect at University, was introduced and taught for the first time in the academic year 2021/2022. It was a practically oriented interactive workshop, the aim of which was to provide students with information and tools for solving ethical problems that could lead to the termination of their studies. In the academic year 2022/2023, the new course Orientation is taught at FFA, the structure of which is based on a gradual familiarisation with the school building and all its workplaces. The aim is to inform students about the structure of their studies; for example, about assessment, how to apply, scholarship opportunities and student grant competitions, and about intra-faculty and national internships and study placements abroad. A separate section covers the basics of writing academic texts, methodology and how to work with sources and citation standards. It is also important to attend the sexual violence prevention workshop and the following session with the school ombudsman.

At some faculties, such as FME, the streaming of lectures was introduced during the COVID-19 pandemic, which proved to be a successful way of teaching. Students have the opportunity to participate in this form of teaching in case of health or other disabilities, and they can return to the recorded lectures later.

CEITEC BUT focuses on an individual approach to doctoral students. Students receive all the necessary information regarding their studies during the enrolment process and are given space to ask any questions they may have, which are answered at the enrolment.

The Alfons Counselling Centre, where students can take advantage of individual consultations, also helps to identify the causes of academic failure rate. In addition, Alfons offers the possibility of further support if a student has specific needs, for example the use of EEG Biofeedback equipment to help students increase their ability to concentrate. Students with special needs receive special attention and care at the Alfons Counselling Centre and are provided with various services to help them successfully complete their studies.

The Student Chamber of the BUT Academic Senate has prepared a well-arranged Freshman's Handbook for new students this year. The handbook is available online at www.prirucka.vut.cz and first-year students will find a range of useful information that will make it easier for them to start and continue their studies at BUT.

4.2 Final decisions on the declaration of the invalidity of the performance of the state examination or its part or the defence of the dissertation

No such proceedings took place at BUT in 2022.

4.3 Measures applied to limit the extension of studies

The threat of fees associated with exceeding the standard period of study by one year remains one of the significant negative motivations. The study departments of all BUT units try to inform students as much as possible about the conditions of the fee obligation from the very beginning of their studies, so that they can adapt their study strategy in time and avoid the potential threat of fees. While this fee is relatively low for the first year after the standard period of study has been extended by one year, for longer periods of study it is a significant financial sum. Students who were forced to extend their studies due to the hardship caused by the COVID-19 pandemic continued to have their fees reduced in 2022 as part of the appeals process. Students from Ukraine were also treated individually in this respect.

In specific study programmes, the faculties also advise students on the organisation of their studies to avoid having to extend them.

In 2022, the faculties and departments of BUT sought to make it easier for their students to cope with the difficulties associated with entering university, which may still have been affected to some extent by the pandemic restrictions at the end of their secondary school studies. In this respect, preparatory courses at faculties are very useful in helping students to make the transition from secondary school to university so that they have a better chance of graduating within a set time (see previous Chapter 4.1.).

Some faculties regularly use the extended examination period after the end of the summer semester, when students can take the missing examinations for both the winter and summer semesters, thereby increasing their chances of advancing to the next year of study without having to repeat some subjects.

At some faculties, they also allow students to enrol in courses more flexibly so that they can plan their studies better and, for example, when repeating a course, simultaneously study subjects from the next year, so as not to unnecessarily extend their studies.

At FIT, the most common reason for extending studies is the simultaneous employment of students. Because students most often work in the field they are currently studying, the faculty tries to work directly with companies on a system of student internships, which, compared to traditional employment, will allow students to better fulfil their study obligations. They also face the same problem in the follow-up master's degree programme at FBM. Here, too, they try to cooperate with companies in organising the studies of their students.

The FCE sees ways to reduce academic failure rate, for example, in increasing the proportion of practical teaching and in an individual approach to students. The difficulty in studying is due to the complexity of specific subjects, but at the same time the content of the subjects can often be unimagined by the students, so it is necessary to inform applicants and new students correctly and thoroughly about the content of their studies.

4.4 Own and specific scholarship programmes

In 2022, as in previous years, 500 of the best matriculants, who became first-year students at any BUT faculty, received special financial support. This is a one-off contribution to motivate the best secondary school students to enter university.

At most faculties, merit scholarships are paid, which are intended for excellent students according to the achieved study average and the number of obtained credits. At some faculties, they support gifted students already in their first year with an extraordinary scholarship, taking into account the study results in the first semester of study. These include for example FCE and FBM. FCE has merit scholarships in five categories and takes into account a grade point average of up to 1.5.

At all faculties, students can receive a scholarship if they engage in scientific or creative activities beyond the standard study obligations. Students are rewarded with the Dean's Award or the Rector's Award for extraordinary study or creative performances.

The BUT scholarship also supports important school representation in sports. The specific conditions for obtaining these scholarships are set by the Sport project at BUT; in 2022, 269 such scholarships were paid out. BUT is also involved in the UNIS Ministry of Education scholarship programme for students with exceptional sports performance. In 2022, following a selection procedure, 29 students were enrolled in the Victoria University Sports Centre scholarship programme. A further 46 extraordinary scholarships were paid from the project to support talented students.

The faculties also support their active students with one-off extraordinary scholarships for representing the school in the field of science or other creative activities. For example, FA regularly awards scholarships for outstanding work by students who have also been successful away from BUT.

At FIT, outstanding doctoral students are motivated by extraordinary scholarships that match their income up to the average wage, so that they can be fully engaged in their studies and are not forced to work outside the university at the same time. FCH and other faculties also try to support doctoral students with incentive scholarships for research and publication results. CEITEC BUT supports doctoral students with excellent results in the form of an extraordinary scholarship during the entire regular period of their study, which is four years. Several supporting scholarship programmes are also provided by FFA in the form of the following scholarship programmes: Support for the Completion of Diploma Thesis, Support for Artistic and Creative Activities of Students, Support for Artistic Activities of Doctoral Students, Dean's Award for Diploma and Bachelor Thesis, and the Scholarship for Loan of Works of Art (Artotheque).

The Rector of the University may award an extraordinary social scholarship to a student in the event of a sudden deteriorating social situation. The purpose of this one-off scholarship is to help the student to get through a difficult period and increase their chances of continuing their studies. Students of FFA, FA and FCE can also receive an extraordinary social scholarship at their faculty.

In 2022, a scholarship was awarded to students who have contributed in an extraordinary way and beyond their study obligations to work with students and applicants from Ukraine, especially in the spring months of 2022, when the highest increase in refugees interested in studying at BUT occurred, and when many current students and their families also needed support from BUT.

The Student Chamber of the BUT Academic Senate offers active students the opportunity to get funding for their initiatives through the Internal Student Support Fund of BUT. The projects are judged by a committee that can allocate up to several tens of thousands of crowns for selected student activities.

4.5 Counselling services provided to students and their scope

Two psychologists worked at the Lifelong Learning Institute BUT in 2022. They provide professional psychological help to students at Brno University of Technology who find themselves in a difficult life situation, or want to better orient themselves, or are trying to develop their personality and their abilities.

The following services are provided:
- psychological counselling of up to seven sessions,
- career counselling,
- coaching,
- development of a professional-personality profile (counselling using psychodiagnostic methods),
- a link page to psychological services (crisis help) has been set up on the LLI website for students.

A total of 695 consultations were provided, of which the majority (634) were psychological consultations.

4.6 Support for students with special needs and their identification

The ALFONS Counselling Centre is part of the Lifelong Learning Institute at Brno University of Technology. Its task is to provide counselling and support services to applicants and students with specific needs.

By specific needs (hereinafter referred to as SN) we mean specific learning disabilities, physical and sensory disabilities, chronic somatic diseases, autism spectrum disorders, mental illnesses or impaired communication skills.

Basic support for students with SN:

Adaptation of the admission procedure – this is a change/adaptation of the admission procedure so that students with SN can prove their skills and knowledge in the same way a. s. udents without SN.

Identification takes place when filling in the e-application form, in which the applicant indicates their specific needs. They are then asked by the Alfons Counselling Centre employee to provide the admissible documents necessary to assess the impact of the disadvantage on the admission procedure.

Students apply for adaptation directly or are advised to do so through the study departments or the Vice-Dean for Student Affairs. Students are regularly informed about activities and support opportunities on the Alfons Counselling Centre website and on social media (Instagram and FB).

Adaptation of study – this is a change/adaptation of the study regime so that students with specific needs can acquire and demonstrate their skills and knowledge to the same extent as other students. The adaptation itself takes the form of proposed direct measures. These include, for example, increasing the time allowance for exams, providing study materials, interpreting into Czech sign language, enlarged assignments, permitting hygienic breaks, and a transcription service. There is also now the possibility to use content transcriptions of teaching materials. This content transcription is intended for students who have difficulty with writing notes. The centre also offers personal assistance, software rental and additional English language instruction newly extended to conversation and online teaching, proofreading of final theses and Czech/English language counselling.

S-kompas – social and legal counselling.

The ALFONS Consulting Centre has been working on the **Dictionary of Selected Technical Terms of Czech Sign Language** for a long time. Currently, the dictionary contains 743 terms translated into Czech sign language.

4.7 Support and work with exceptionally gifted students and those interested in studying

BUT faculties provide gifted students with merit or extraordinary scholarships and can nominate them for the Dean's Award or the Rector's Award. Specific corporate partners also donate some of the funds for the award of exceptionally talented students. Gifted students can present themselves in established external competitions such as the Josef Hlávka Prize, the Werner von Siemens Prize or the Brno Ph.D. Talent competition. In 2022, the prestigious Werner von Siemens Prize was awarded to two BUT graduates, Tomáš Zbavitel in the category Award for Overcoming Obstacles and Robin Filip in the category Best Thesis. In the traditional Brno Ph.D. Talent competition for doctoral students, eleven BUT Ph.D. students were honoured in 2022. Among the internal competitions, we can mention, for example, the presentation competition 8 of BUT, which is organised annually by BUT and in which the best eight graduates of bachelor's degree programmes compete in rhetoric and popularisation of their bachelor's theses.

A teacher at FFA can obtain information about a prospective student's extraordinary talent before the start of the admissions procedure. The prospective student usually contacts the teacher and discusses their wishes or artistic intentions with them. After meeting all the basic conditions for admission to study, such a student is given individual attention in a specific studio.

At FIT, exceptionally talented applicants are supported with priority admission based on outstanding results in prestigious competitions, and a. s.udents they are further supported to engage in research through project internship. At FBM, gifted students are provided with individual space to participate in the faculty's professional activities as an auxiliary or within the programme of support for the development of student start-ups, which is mainly linked to professional study programmes. Another form of support is the programme of consulting students' individual business projects.

At the Institute of Forensic Engineering, talented students are involved in solving interesting problems related to the creative activities of the Institute, especially through being offered a choice of suitable thesis topics so that they are motivated to continue their doctoral studies.

In 2022, BUT again awarded the 500 best graduates of Czech secondary schools enrolled in the first years of bachelor's degree programmes with a one-off amount of CZK 6,000. The algorithm is set up so that students who choose mathematics and English language in the compulsory part of the matriculation exam will receive a bonus. Those who choose the more demanding version of the Mathematics+ exam in the optional section also have an advantage.

Applicants are also worked with at the secondary school level or through competitions (e.g. STAVOKS at FCE, Business Point at FBM, Merkur PerFEKT Challenge at FEEC and Roboti@ FSI at FME). Thanks to the CEITEC Student Talent project, selected candidates from secondary schools can also try working at the CEITEC BUT Science Centre – the best of them will join renowned scientific teams.

In addition to working in student organisations (e.g. BEST Brno, IAESTE, ESN BUT Brno), active students can also find employment in specific scientific projects run at their home institutes. Doctoral students are usually involved in specific research, participate in foreign conferences, etc.

Every semester, FFA offers gifted students the opportunity to study in a special studio, belonging to a guest teacher, who is usually a prominent foreign artist invited by the faculty. Teaching is in English. Since last year, there has also been the possibility of a year's free studio in the Kraví hora area. Since 2021, the Dean's Award for FFA graduates has included a new opportunity for a month-long artistic residency at Nová Perla in Vrané nad Vltavou.

In 2022, FCH significantly expanded the opportunity for gifted secondary school students to develop Students` Professional Activities (SPA) and practical training in its laboratories. Under the guidance of academic staff, secondary school students have the opportunity to work on topics which they can then continue to study if admitted. As part of the popularisation of chemistry, FCH prepared a series of workshops and popularisation lectures for secondary school students to practice practical skills in a laboratory environment focused on current topics. Another important activity was the organisation of the regional round of the Chemical Olympiad.

4.8 Support for students with socio-economic disadvantages and their identification

BUT does not have its own tool to identify students with socio-economic disadvantages, but these students can themselves apply for, for example, a social scholarship. In 2022, a one-off scholarship was paid to all BUT students from Ukraine to help solve the most acute problems of students and their families as a result of the war in Ukraine.

Both students and employees of BUT have access to the S-Kompas counselling centre within the LLI BUT, which offers assistance mainly in the legal and social fields. Support is provided by email, telephone, or personal consultation. S-Compass services are linked to other government and non-profit organisations to help students navigate the help and support they are eligible for.

4.9 Support for student-parents

Each student-parent can request an individual study plan from their faculty. This applies especially to student mothers during the period when they would otherwise be on maternity leave. These students can also request a postponement of the review of the fulfilment of study obligations in the period around their due date. FA allows Ph.D. students with young children to substitute a foreign internship with another form of international activity. At the Institute of Forensic Engineering, both parents of a child under three years of age may request individual adjustments to attendance requirements in courses in which attendance is compulsory. FME allows student-parents to take exams outside the exam period or to set up an individual study plan.

FFA caters to student-parents as much as possible by enabling them to fulfil their study obligations in extraordinary terms and during the entire academic year, or over several years. Some studios have even adapted the equipment of the studio to such an extent that student-parents can bring their young children to the studio and devote themselves to artistic creation.

Students who are parents of a child under the age of three may interrupt their studies. The Dean will always comply with such requests, and the period of interruption due to parenthood does not count towards the maximum period of study. The time when a student studies in the legally defined "recognised period of parenthood" does not count toward the total period of study, from which the fee obligation is later calculated. At FCH, parent students can apply for financial support in the form of a scholarship.

The Edisonka mini-school has also been operating at BUT for seven years. It is located on the FEEC premises, but is intended for children of employees of all BUT faculties. It is not a traditional nursery school, but provides a regular babysitting service in the form of a children's corner, for children under 6 years of age. At FCH, a special room was established as a rest area for student-parents who take turns caring for their child between the individual teaching blocks, while some women's toilets at BUT are also equipped with changing tables.

5 Graduates

5.1 Cooperation and contact with graduates

Every year, BUT expands its database of electronic contacts to graduates (at the end of 2022 there were more than 26 thousand contacts, which means an increase of more than 2 thousand contacts compared to 2021). Brno University of Technology presents its successful graduates mainly through articles on the website for graduates and on www.zVUT.cz. More than two dozen of them were published during 2022. They are also popular on social networks, the strongest of which is LinkedIn (more than 54,000 followers).

In 2022, BUT also continued to publish the VUTARIUM newsletter for graduates. During the year, four issues of the Czech version and two issues of the English version were published with interesting articles, interviews, invitations and information about current events at the university.

The next edition of the successful Golden Graduation event is planned for 2024 as part of the communication plan in connection with the celebration of the 125th anniversary of the university.

Cooperation with graduates at the professional level took place in the form of their involvement in the design and creation of BUT representative promotional items.

In 2022, BUT also continued to communicate with other universities within the grouping of University Graduate Centres in the Czech Republic under the auspices of the Prague University of Economics and Business with the aim of sharing current needs, know-how, data, research and good practice in working with graduates.

5.2 Monitoring the employment of graduates, measures to increase it, own surveys and reflection of results in the content of study programmes

In 2022, a regular internal survey was conducted by BUT, in which graduates of follow-up master's studies from 2019 and 2020 were addressed. Some of these graduates were already entering a labour market affected by the pandemic crisis. This was reflected in the data, but not significantly. 69% of the 2019 graduates and 65% of the 2020 graduates had a job arranged before graduation. Overall, 67% of graduates had a job secured before graduation and another 26% within three months of graduating. Despite this, a third of the graduates said that the situation on the labour market in connection with the pandemic had affected them in some way, most often mentioning the reluctance of employers to increase their salaries. Nevertheless, starting salaries mostly increased, on average by 19% at BUT, while stagnation was recorded at two (smaller) faculties. Salary growth continued even after the induction period. The average gross salary of graduates one to two years after graduation was CZK 47,857. It is still true that the most frequent employers of BUT graduates are Czech private companies, accounting for 38%, while 32% of graduates are employed by foreign or multinational companies. BUT activities (mostly cooperation during studies and presentations to employers) helped 36% of graduates to find a job.

The proportion of graduates who, if they had their choice now, would study at BUT again has increased to the level of four years ago, namely 88%. The proportion of graduates who would go to the same faculty they graduated from rose from 70% to 79%. As the biggest shortcomings in their preparedness for work, graduates repeatedly cited practical knowledge, managerial knowledge and skills, and economic and financial knowledge.

In addition, in the graduate research area, BUT was involved in two other projects, the development project Graduate 2022 coordinated by the Czech University of Life Sciences, which aimed to map the monitoring of feedback at individual universities and to design a central methodology for data collection, and the international survey of graduates Eurograduate 2022 for the Czech Republic coordinated by the Centre for Higher Education Studies.

Some questions on employment, job searches and readiness for work were also explored in questionnaires aimed at graduating Bachelor and Master degree students. However, these two surveys more intensively address satisfaction with studying or its perceived difficulty. There is repeatedly high satisfaction with the expertise of the teachers or the activities of the study departments, but also with the range of sports activities. The results are available to the management of individual faculties, who reflect them in marketing and in the design of study programmes.

5.3 Cooperation with students' future employers

In 2022, cooperation with students' future employers was the focus of the Career Centre BUT (hereafter referred to as the CC), which offered students development programmes in the field of career development and entrepreneurship.

The main pillar of the offer to the partners from practice was a programme of paid advertising of job offers on the CC website and social networks, followed by free posting of paid and unpaid student internships.

In the service area, the CC offered activities and information resources to students in two areas, career development and entrepreneurship development. As in previous years, the topics of the training events were selected based on the results of student questionnaires. The activities were accompanied by articles on the CC website and a long-term offer of e-books and educational posts on social media. Students liked the Career Development Library, where they could access titles recommended by career counsellors.

In 2022, the CC organised 32 lectures, seminars and workshops with a total attendance of 626 students. In terms of attendance, the most attractive events were focused on the themes of taxes, financial literacy and related agenda. Workshops on the use of social networks in career building were second in popularity, and activities related to improving soft skills and personal development were also widely used.

In 2022, two surveys were conducted among employers of BUT graduates. The first part focused on the readiness of graduates for practice, the second (preferred) on cooperation with universities. Only 44% of the companies surveyed require a degree in the relevant field, a large proportion of the others are satisfied with a related field or the situation is specific to individual positions. However, more than nine out of ten companies and organisations surveyed at least sometimes require a university degree for expert positions. Although a bachelor's degree is sufficient for more than half of employers (often conditional on work experience), most employers still value the completion of a follow-up degree, and a large number are prepared to provide their employees with various concessions to supplement their education. A key reason for the preference for follow-up studies is that employers believe these graduates have deeper and more specific knowledge. However, for more than half of employers, it is also evidence of the higher ambitions of the student/graduate.

According to three quarters of employers, BUT graduates have a good level of professional knowledge; on a scale of 1 to 5 , with an assessment like that a. s.hool, they marked them 1 or 2. Right behind (70%) is readiness in terms of the ability to work with information, with the majority also praising knowledge of the necessary software (61%), working with devices, tools and technologies (53%) and the ability to apply professional knowledge in practice (52%). On the other hand, graduates are less well placed when it comes to widely required skills, for example in project management, economic and financial areas or the ability to lead a team.

It is still true that according to employers, there is a shortage of graduates in the fields in which BUT provides education. Companies would be interested in intensifying contact with BUT, offering internships or educational trips, or participating in shorter presentations for students at the faculties. Employers expect to be able to attract young talent in ways other than traditional recruitment marketing. However, they also appreciate the fact that they will be able to present a real working environment to prospective students or influence the future direction of students who are still undecided. Seven out of ten admit that it is (definitely or rather) an important employer branding tool for them.

6 Interest in studies

6.1 Nature of the entrance examination

Entrance examinations are held by individual BUT faculties, unless they use the Scio services, which regularly organises National Comparative Exams. Otherwise, the entrance examinations consist mostly of secondary school mathematics and physics, but in some faculties biology or computer science is also included, it always depends on the specific study programme.

At most faculties, there is an extensive system of possibilities for waiving entrance exams, based on achievement, participation in various competitions (especially in Students` Professional Activities, various Olympiads, etc.). For example, at FIT, they try to find active candidates who are already involved in activities a. s.condary school in addition to their study duties. FA, FFA and the architectural study programmes within FCE have a talent component in the entrance exam. FEEC also has a talent exam for the study programme Audio Engineering and FME has one for the programme Industrial Design in Mechanical Engineering.

For study programmes conducted in English, the entrance examinations are most often conducted in the form of oral interviews, and applicants' motivation to study and language readiness are also assessed. Entrance examinations to doctoral study programmes are of a specific nature, conducted in the form of an expert debate on the intended topic of the dissertation, where it is necessary to verify not only the knowledge necessary but also the applicant's readiness for subsequent scientific work.

6.2 Cooperation with secondary schools

As part of the Roadshow project, BUT continuously visits secondary schools to present its faculties and departments. The selection of secondary schools is based on the relevance of their focus, the region, the results of admitted graduates and other criteria. Secondary schools interested in the Roadshow will be visited by an employee of the Marketing and External Relations Department and, along with BUT student representatives, will present study programmes and other information about studying at BUT. In the subsequent discussion, BUT representatives answer specific questions from applicants. The principle of ambassadorship and the involvement of BUT students directly in the Roadshow programme has a great resonance among secondary school students; the students making the presentations are very close in age to the applicants and this contributes to the positive perception of BUT. After two years of hybrid forms of BUT presentations, the face-to-face form of the Roadshow prevailed again in 2022.

BUT also evaluated the schools which provide the best candidates for studying at the university. In the BUT TOP 500 programme, 500 of the best secondary school graduates in the Czech Republic enrolled in the first year of bachelor's degree programmes at BUT were rewarded with a one-off financial contribution.

The traditional meeting with the heads of the secondary schools, who provide most applicants to BUT, took place at FFA in 2022 after a one-year break caused by the COVID-19 pandemic. Eighteen heads of secondary schools, mostly focusing on art and design, took the opportunity to visit one of the faculties of Brno University of Technology. In addition to the presentation of the university as a whole, there was also a presentation of FFA's procedures and strategies, as well as a facilitated discussion on the issue of awareness of art university education and its nature a. s.condary schools, the biggest obstacles in the transition of students from secondary to university level studies and the possibilities of closer cooperation between secondary schools and FFA. The meeting concluded with a tour of the FFA building and a visit to the FFA Gallery.

The BUT exhibition stand is traditionally part of the largest fair of post-secondary education in the country, Gaudeamus Brno, which takes place at the turn of October and November. The university also supports communication with visitors by participating in the accompanying programmes. Lectures for students and teachers and the Science for Life programme, with interactive science exhibits, are supplemented by information about the admissions procedure, study programmes, faculties and departments and the university's facilities. BUT also participates in the Gaudeamus trade fairs in Prague, Nitra and Bratislava every year.

In 2022, BUT again built on its previous partnership with FabLab University. Through a shared workshop, it enables practical training in digital production technologies for students of partner and special-interest secondary and primary schools, and not just in the South Moravian Region. It offers not only the opportunity to learn the latest information about advanced manufacturing and prototyping, but also the opportunity to try out all the machines, such as 3D printers, milling machines and electron microscopes, and to produce something on them.

Close cooperation with secondary schools is also ensured by individual faculties, depending on their focus. For example, FCE cooperates with secondary technical schools, FBM with business academies. Organising tours for secondary

schools is also an integral part of life at FME. I don't know what we are doing here, that was the name of the team of students from the Grammar School Chotěboř and the Secondary school of Applied Cybernetics Hradec Králové. As it turned out, they definitely knew what to do, otherwise the team would not have taken gold in the Robots@FSI competition. This traditional competition, in which students are tasked with creating and programming a robot from the LEGO Mindstorms NXT kit, was held for the sixth time at FME in 2022.

Record participation was also achieved in the online mathematics competition MATHING. Grammar School Poštová 9 from Košice, Slovakia, can be proud of its first place in the Internet Mathematics Competition MATHING 2022. This competition was organised for the fifteenth year by the Institute of Mathematics of FME. In 2022, there was a record high participation, with 221 teams from the Czech Republic and Slovakia, a total of 1,487 secondary school students from 114 schools.

FIT regularly organises a summer computer school exclusively for girls. Last year, secondary school girls interested in IT were offered the opportunity to program their own robot, try out virtual reality, design a mobile application, create a prototype on a 3D printer, or perhaps learn more about the dark web. The week-long course aimed to show that there are many attractive areas in IT that interest and entertain both girls and women. FIT aims to eradicate the prejudice that IT is an exclusively male field.

BUT Junior is a project for primary school pupils and students in the lower years of multi-year grammar schools. Its aim is to familiarise students with the environment of Brno University of Technology, the study areas of the university, modern technologies and the latest knowledge resulting from scientific activities at BUT. The knowledge is conveyed in an understandable form and is intended, in addition to expanding knowledge, especially in the field of chemistry and physics, to positively develop students' interest in technical sciences. The project activities are carried out at the BUT faculties and departments. They take turns in organising lectures so that BUT Junior participants visit as many BUT workplaces as possible during the academic year. The topics of the lectures always correspond to their focus. Meetings are held on a monthly basis and take place on Saturdays. Participants will meet a total of ten times during the academic year. A matriculation ceremony is held at the beginning of the programme and upon graduation, with participants receiving a diploma of completion of the programme, which is presented to them at the graduation ceremony. In the academic year 2022/2023, the project was reopened for 50 students after a two-year hiatus due to the restrictions caused by the COVID-19 pandemic.

7 Employees

7.1 Career Code for academic staff and motivators for employee remuneration

BUT is aware of the importance of providing motivation for work performance and supporting the career growth of employees. The requirement for a Career Code was included in several strategic documents. In the area of evaluation, the SHAP system was tested as a full-fledged tool for evaluating academic staff, and a pilot system for evaluating non-academic staff was implemented at the BUT Rector's office in 2022. These evaluations will continue to be carried out in the upcoming years and measures will continue to be taken to strengthen staff motivation and support their career development.

7.2 Developing pedagogical skills of the academic staff

Staff development is systematically implemented within the system of quality assurance and internal evaluation of educational, creative and other activities. The Lifelong Learning Institute (LLI BUT) provides training according to current needs and in accordance with the strategic goals of the university. In the area of pedagogical skills, courses were implemented mainly on communication, presentation and lecturing skills. The development of the pedagogical skills of academic employees and Ph.D. students was supported by seminars on other forms of education (distance, hybrid) including the introduction of communication platforms. Feedback (evaluation) is provided to the academic staff in the form of making the results of student surveys available to the heads of institutes, guarantors of study programmes and the Vice-Rector for Student Affairs.

7.3 Gender equality

Measures are taken at BUT to promote gender equality according to the principles of non-discrimination and gender mainstreaming. BUT recognises that employees are not just men and women in the work context, but individuals with different roles, experience and education. BUT respects the diversity of its employees and values their different perspectives and competencies.

BUT is gradually implementing the goals it has set in the BUT Gender Equality Plan 2022–2024. It has established cooperation with several organisations dealing with this issue. Training of staff at different levels of management in this area has been initiated, also in view of the many projects the university is working on, where the gender dimension needs to be taken into account in research.

7.4 Issues of sexual and gender-based harassment

The university considers the area of social safety and, along with it, the addressing of negative phenomena and gender-based violence to be a priority. For this reason, it joined the CRP 18+ project Social Security in the Context of Academic Ethics. During the year, the Social Security website was created and a Rector's Statement on Intolerance of Unwanted Behaviour at the University was issued. BUT has started to work on a systematic solution in this area. This includes the training of staff, proposals for adjusting internal standards, gradual adjustment of the network of recipients of notifications, etc. All forms of discrimination, harassment or bullying are unacceptable at BUT, both in the school environment and in other related environments (practical training, internships, etc.). In 2022, in line with the HR Award and other needs, the university revised the BUT Code of Ethics and appointed a new Ethics Committee. The Ethics Committee has been expanded to include student representatives and a contact person for social security at BUT.

8 Internationalisation

8.1 Support for participation of students and staff in mobility programmes abroad

Motivation and support of students' trips abroad for study stays, practical internships, summer/winter school, short-term stays or other types of mobility is one of the important activities of the development of internationalisation at BUT. For students themselves, gaining experience abroad is an important factor in getting a job. In addition to physical mobility, students and staff can undertake new types of mobility, such as virtual mobility or hybrid mobility (part of the mobility is physical and part virtual). These types of mobility were of great interest during the COVID-19 pandemic.

Currently, virtual and hybrid mobility is more often used by students who are employed while studying and do not want to lose their jobs, or students who have already started a family and for whom mobility abroad would be very complicated. Hybrid mobility is strongly supported by the Erasmus+ programme, which offers participation in the Blended Intensive Programme. The aim of this programme is to encourage international links between university education institutions to jointly develop programmes for training, studying and teaching groups of students, academic and administrative staff using innovative approaches and digital tools.

In terms of the use of programme schemes that allow students to undertake study stays, practical internships, summer/winter schools or short-term stays, the Erasmus+ programme is still the most used. This programme has undergone some changes – it is now possible to implement combined mobility (the aforementioned Blended Intensive Programme). The Erasmus+ programme also offers international mobility, where students and staff have the opportunity to travel to countries outside Europe. It is thus possible to gain international experience all over the world.

Other opportunities that students and employees can take advantage of include the CEEPUS (Central European Exchange Programme for University Studies) and AKTION (mobility between the Czech Republic and Austria) programmes, and Academic Information Agency scholarships. BUT students and employees use the Free Mover mobility format for trips abroad. This type of mobility allows you to travel abroad to any foreign university and is funded by MEYS, specifically from the Programme for the Support of Strategic Management of Higher Education Institutions. Students also have the opportunity to gain international experience by going on practical internships through the International Association for the Exchange of Students for Technical Experience (IAESTE). Other opportunities are offered by the international student organisation BEST (Board of European Students of Technology), which offers BUT students participation in foreign courses focused on technical skills.

An important organisation that looks after international students before they arrive and throughout the semester is the Erasmus Student Network (ESN). The Department of Internationalisation, in cooperation with ESN, offers an indispensable welcoming service to international students coming for a short stay.

For international students, in cooperation with ESN, BUT organises a Welcome Week every year before the beginning of each semester. The aim is to familiarise foreign students with the environment of Brno University of Technology and Brno, to inform them about cultural customs, and to prepare them for possible cultural differences.

BUT tries to motivate students to gain study experience abroad through various activities. One of these is the organisation of events such as International Mobility Day, Move in Europe, and faculty events. The pandemic has shown that some types of events can be presented online – these events have a much greater reach than those that are physically organised. Regular Facebook live sessions are organised during which BUT students who have completed a study stay, practical internship or summer school abroad share their experience. It is not only the experience that students gain during their time abroad that can be valuable, but also the experience of preparing for the stay, which is typically the administrative work involved in arranging the stay and other practical matters. In order to motivate students to go on study trips abroad, a monthly newsletter is also published, through which students are informed about offers of educational programmes abroad, about sharing the experiences of students who have been abroad and about the deadlines of individual educational programmes abroad and offers. Instagram and an ambassador network made up of BUT students who have experience with the trips abroad are also used for the same purpose.

BUT also tries to attract foreign students who are studying long-term to the study programme, the full degree students. One of the tools used by BUT in 2022 to recruit foreign students was the Study in Brno project. This project is primarily aimed at promoting the offer of BUT fields of study and its project partners, which in 2022 were MU and MENDELU, as well as promoting the Brno region abroad. The Study in Brno project has shown that studying at Brno University of Technology is very attractive for foreign students. The interest in studying at BUT on the part of foreign students who have submitted an application for study at the university through the Study in Brno platform is also confirmed by the fact that the number of applications submitted amounts to 22% of the total number of applications submitted by foreign students for full degree studies.

To attract foreign self-paying students, BUT is also actively involved in the Study in Czechia platform, which not only promotes the university's study offer to potential foreign students, but is also active in other marketing activities aimed at international cooperation. This platform is managed by the House of Foreign Cooperation. BUT also cooperates with the South Moravian Centre for International Mobility (JCMM), which arranges for other foreign students studying in the Czech language for BUT. The South Moravian Centre for International Mobility also offers scholarships in certain fields for international students studying in English programmes. Implementation of the SoMoPro project, thanks to which BUT is gaining top scientists is also part of the cooperation with the South Moravian Centre for International Mobility. Unfortunately, in 2022 this cooperation was not implemented.

One of the important factors for the recruitment of foreign students is the establishment of the Admissions Office at BUT. The aim of the Admissions Office is to communicate more effectively and actively with foreign applicants, not only up to the moment of submitting an application to study at BUT, but also during their studies at the university. The Admissions Office will assist students with visa issues, accommodation, nostrification and other practical matters related to studying at BUT and staying in the Czech Republic.

A first draft of the Admissons Office concept was created in December 2022, with a test run in the first half of 2023 and full operation of the office planned for September 2023.

An ambassador network involving foreign students studying at BUT is used to communicate with foreign students or to recruit them to study at the university. An update of the ambassador network was launched in 2022 and further development is planned in the future.

BUT is committed to the constant improvement of conditions for the recognition of subjects that students have completed during their stays abroad. The Rector's directive, which sets the recognition of subjects completed abroad, is used for this purpose. In general, there is an effort to ensure that students do not extend their studies, but complete them on time despite the time spent abroad.

The Department of Internationalisation is continuously implementing its goal of reducing the administrative burden, both for students and staff, as well as for faculties/departments. The Department of Internationalisation is involved in the Erasmus Without Paper initiative, one of the European Commission's main initiatives to digitise the administrative procedure for processing Erasmus+ mobility.

8.2 Support for further mobility of employees abroad

BUT is involved in the call of the OP RDE International Mobility of Researchers I and II. This project enables the bilateral long-term mobility of researchers. The project is beneficial not only for the researchers themselves, but especially for BUT in terms of sharing much needed know-how. The project rules also allow for bilateral mobility of administrative staff.

The Department of Internationalisation regularly organises International Staff Week, which is intended for colleagues from foreign universities in order to share good practice in the areas of the Erasmus agenda, the two-way mobility of students and staff under other programmes, internationalisation at universities, and introducing BUT faculties and departments to increase two-way mobility of students and staff and scientific cooperation between the university and its foreign partners.

8.3 Integration of foreign members of the academic community

The aim of BUT is to develop excellence at the university through the presence of foreign scientists and academic staff. The integration of foreign members of the academic community into the life of the university is one of BUT's priorities in the field of internationalisation.

The Central Welcome Service is one of the integration processes for foreign research and academic staff at BUT. Welcome Service offers comprehensive care to foreign employees, from assistance with visa processing, arranging accommodation, dealing with administrative matters at the Czech authorities, including accompanying them to the Department of Foreign Police or the Department of Asylum and Migration Policy. Foreign employees often come with their families. Welcome Service is also prepared for this situation and is able to provide assistance in these areas as well. The Welcome Service Office also cooperates closely with EURAXESS, the Centre for Foreigners of the South Moravian Region and the Brno Expat Centre. The university's goal is to smoothly and actively include foreign members in the BUT academic community.

8.4 Activities strengthening internationalisation

One of the main activities strengthening internationalisation at BUT is membership in international networks and alliances. BUT is a member of international university networks, including the prestigious network of technical universities CESAER (Conference of European Schools of Advanced Engineering Education and Research) and the European Universities Linking Society and Technology (EULiST). EULiST is a consortium of ten universities that is geographically balanced. BUT sees the University Alliance as an advanced stage of the internationalisation of European universities in the European Higher Education Area. By linking the individual universities into an alliance, a single platform is created that contributes to achieving synergies in the professional know-how of the partner universities.

International cooperation with partner foreign universities is, among other things, implemented on the basis of international agreements (Memorandum of Understanding). Currently, BUT has 147 university-wide international agreements and 113 international agreements concluded by faculties and departments. There are 600 inter-institutional agreements within the framework of Erasmus cooperation.

One of the other aspects of internationalisation is the implementation of the Internationalisation Action Plan for the period 2021 to 2023 in cooperation with the faculties and departments. The outcome of the Action Plan is the Strategy for Internationalisation in the BUT Internal Environment.

Several foreign visitors came to BUT in 2022, for example from Ariel University (Israel), TU Wien (Austria), Kepco International Nuclear Graduate School (South Korea) and Lappeenranta-Lathi University of Technology (Finland).

BUT also actively participates in professional fairs abroad, where it promotes its study offers for foreign students, opportunities for cooperation with university staff and opportunities for cooperation in science and research. In 2022, BUT participated in the EAIE (European Association for International Education) career fair.

8.5 Virtual and combined mobility

Virtual and combined mobility are among the new types of mobility that have become part of university studies.

Virtual mobility allows students to study virtually. Students remain at BUT for the duration of their mobility and participate in educational activities online in the country of the host institution.

This type of mobility was mainly used by BUT students during the COVID-19 pandemic. Virtual mobility can be interesting for students who have already started their family or have an interesting job they do not want to lose, but are also interested in gaining experience and information from a foreign environment.

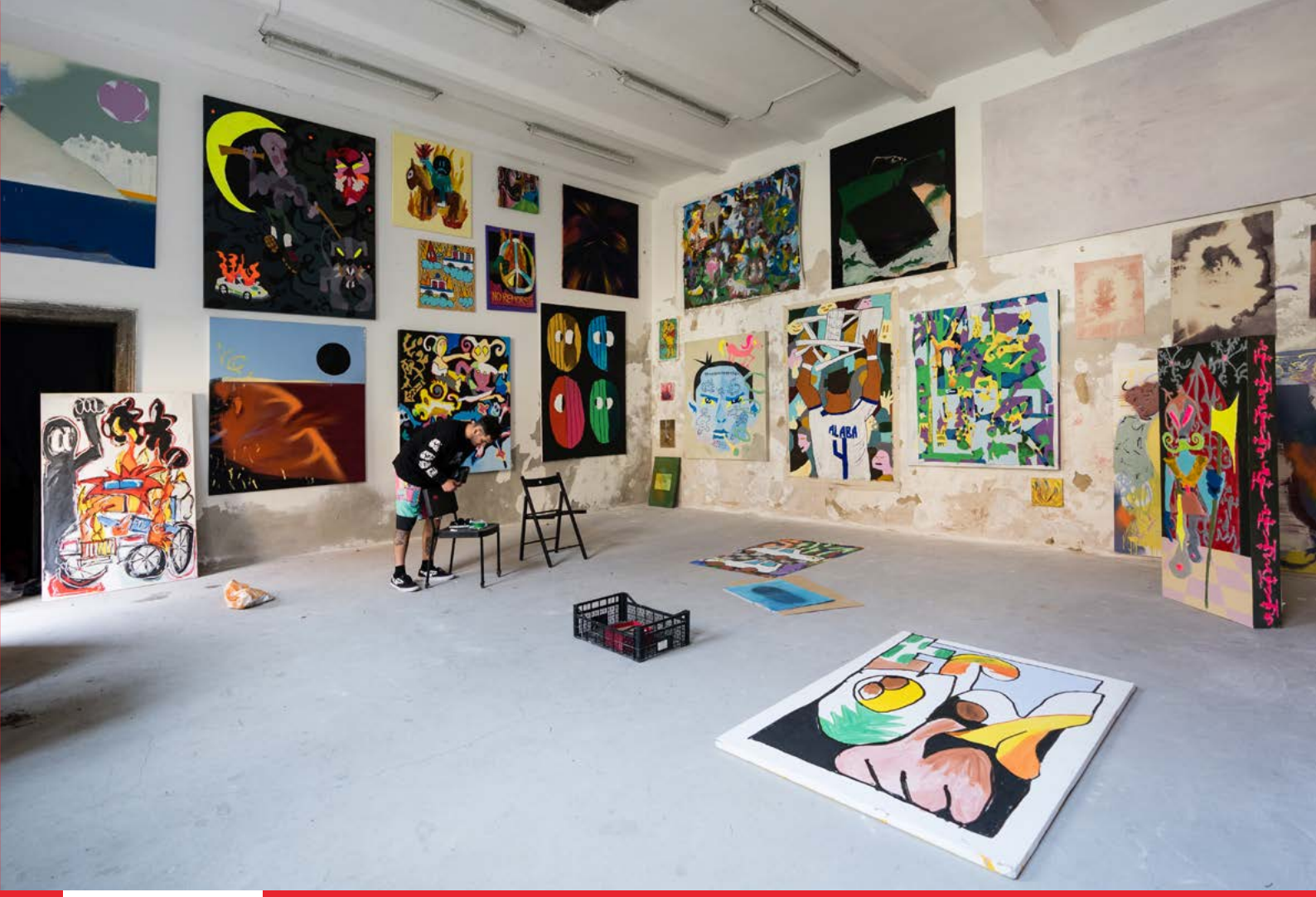
Another type of mobility that students can take advantage of is Blended Mobility, i.e. combined mobility. This mobility, as the name suggests, allows for both physical and virtual mobility. Combined mobility is supported by the European Commission through the Erasmus+ programme under the Blended Intensive Programme. In 2022, BUT has so far joined one such programme. Its aim is to encourage international links between university education institutions to jointly develop programmes for training, studying and teaching groups of students, and academic and administrative staff using innovative approaches and digital tools.

Administrative, academic and scientific staff also have the opportunity to use virtual or combined mobility, which was particularly popular during the COVID-19 pandemic.

Virtual and combined mobility allows for rapid sharing of teaching experience, improvements in presentation skills and certain savings in time and money.

In 2022, BUT participated in a centralised development project, the main theme of which was the sustainability and further development of virtual and combined mobility at universities. The project focused mainly on the variability of requirements and needs in cooperation with foreign universities in the development of virtual and combined mobility. Among other things, BUT is currently addressing this topic within the European Universities Linking Society and Technology (EULiST) network, which includes nine other foreign partners.

We perceive that these relatively new types of mobility hold great potential for connecting students, academic, research and administrative staff with foreign countries at different levels.



9 Scientific, research, artistic and other creative activities

9.1 Strengthening the link between creative and educational activities

Academic and research staff at BUT strive to participate in research that will lead to significant new findings and research that will have high application potential. One of the tools to achieve this goal is to engage in prestigious international and national projects of the basic research, applied research or collaborative and contractual cooperation with industrial partners. The results from creative activities are quickly incorporated into lectures, tutorials and seminars for students in all accredited fields.

Each faculty has exclusive research directions in the creative activities linked to the projects they are currently working on, directly involving students in their solution and thus innovating individual forms of teaching. The direct connection of the results of all forms of creative activity with teaching enables future BUT graduates to obtain adequate education with a high potential for employment on the international labour market, in virtually all areas of advanced technology. BUT faculties and departments collaborate significantly with companies, which enables their participation in teaching in the form of lectures, short seminars and full-time workshops. Students thus have the opportunity to obtain the most up-to-date information from practice, including information on research topics for which there is the greatest social demand.

9.2 Involvement of bachelor's and follow-up master's degree students in creative activities

Všichni studenti bakaAll students of bachelor's, and especially master's and doctoral study programmes are involved in creative activities within the framework of their bachelor's, diploma or dissertation work and can also be involved in research, development and artistic projects of all types at individual faculties and departments of BUT.

Students of follow-up master's and doctoral programmes have the opportunity to apply to the Student Grant Competition within the framework of specific university research at BUT. This competition emphasises the strengthening of students' independent creative activity in cooperation with academic staff in the field of research and development. The projects enable the intensive involvement of students in the issues addressed, especially in team research and development activities at faculties and departments.
The grants, awarded annually as part of student-specific research, contribute to increasing the quality and efficiency of scientific research and artistic work, the development of interdisciplinary fields in doctoral and follow-up master's studies, international cooperation, and support for the publication of results, which is in line with BUT's Strategic Intent. Grants are financed from targeted support by MEYS. In 2022, a total of CZK 86,026,435 supported 191 projects, of which 116 were junior projects (including 13 interfaculty projects) and 75 standard projects. The main objective of interfaculty projects is to promote interdisciplinary cooperation at BUT and to make optimal use of new equipment, technology and infrastructure. The results of the solutions are defended at each faculty or department at a student conference organised at least once a year. Assessors are from the ranks of BUT professors and associate professors, but experts from practice are also represented on the committees. These are mainly from companies with which BUT has established long-term cooperation or with which BUT graduates find employment. Student conferences are an opportunity for students to present their level of knowledge, creativity and research teamwork. In 2022, the faculties and departments organised or participated in the organisation of seven student conferences. These included the Juniorstav conference designed for all civil engineering students; Student EEICT, focused on electrical engineering, information and communication technologies; Excel@FIT 2022 in the field of information technology; Chemistry is Life 2022 in the field of chemistry; the multidisciplinary focused Ph.D. Retreat 2022; Faculty Doctoral Conference for the presentation of artistic outcomes at the Faculty of Fine Arts, and Junior Forensic Science (JuFoS) 2022 for forensic engineering students.

Furthermore, students are involved in research activities within various projects announced by TA CR. These include projects in the Zéta programme (aimed a. s.pporting early-stage researchers), Gama and the National Centres of Competence. The National Centres of Competence 1 programme focuses on supporting long-term collaboration between the research and application spheres and strengthening the institutional base of applied research for the period 2018 to 2022. BUT is the main beneficiary of two projects (National Centre of Competence for Aeronautics

and Astronautics, National Centre of Competence for Mechatronics and Smart Technologies for Engineering) and co-investigator in seven other projects.

A great advantage of studying at BUT is the opportunity to participate in research on the most current topics through collaboration with companies. The companies that are interested in developing a new process, product or idea can suggest a topic for a bachelor's or master's thesis and provide an expert supervisor who will consult on the thesis with the student.

As part of the Let's Do Business! Project, the Faculty of Business and Management, along with the South Moravian Innovation Centre, prepared the university-wide course Development and Implementation of a Business Idea. This course is offered in both the winter and summer semesters. At the same time, the BUT Student Entrepreneurship Award competition, focused on student ideas, took place for a third year. The overall winner of the ten finalists was Pavel Šafl, a student of the Faculty of Electrical Engineering and Communication.

The high professional quality of the creative activities of BUT students is evidenced by various other awards. Eva Truncová from the Faculty of Architecture was awarded the best diploma thesis in the field of architecture, urban planning and landscape architecture by the Czech Chamber of Architects. She was successful with her diploma thesis in the evaluation by the expert jury in the competition involving more than eighty projects from all over the country. The award for overcoming obstacles in studying, awarded as part of the Werner von Siemens Prize, went to a recent BUT graduate, Tomáš Zbavitel. He was the very first in the history of BUT to take the state final exam in Czech sign language. Another Werner von Siemens Prize, for second place in the Best Diploma Thesis category, was awarded to Robin Filip, a graduate of the Faculty of Electrical Engineering and Communication at BUT, for his thesis entitled Smart Charging of Electric Vehicles and Battery Storage for Increasing Photovoltaic Hosting Capacity of Distribution Networks. Martin Vrána, a student of the Faculty of Electrical Engineering and Communication, won the award of the Deputy Governor of the South Moravian Region for the Environment for his bachelor thesis Design of a Photovoltaic Power Plant with Battery Storage for a Household in the Brno-Město Locality. Ing. Vojtěch Havlena from the Faculty of Information Technology was awarded 3rd place in the Joseph Fourier Prize competition. In his work, he dealt with the development of efficient automated techniques in terms of programme verification and network security. He has succeeded in developing new approaches that further advance the practical applicability of finite automata in real-world applications and enable, for example, more effective detection of network attacks and anomalies. Ing. Son Hai Nguyen, a student of the Faculty of Information Technology, received the Zdena Rábová Prize for his excellent diploma thesis Approximation of Ultrasound Propagation Using Neural Networks (under the supervision of prof. Adam Herout). A comprehensive list of our award-winning students can be found in the Achievements and Awards section at the beginning of the Annual Report.

9.3 Dedicated funding for research, development and innovation received in 2022

In 2022, BUT received a total of CZK 2 billion in R&D support, including CZK 0.6 billion in institutional R&D support and CZK 1.4 billion in earmarked support for R&D projects in current and capital funds. Out of the total amount of earmarked subsidy for R&D projects, 823 million was obtained as principal investigator and 593 million as co-investigator.

As part of the cooperation on the project, BUT transferred CZK 168 million to its partners. The largest share is accounted for by subsidies obtained within the framework of projects of MEYS, TA CR, GA CR and the Ministry of the Interior.

9.4 Support for doctoral students and staff in post-doctoral positions

BUT organises internal grant competitions for doctoral students and staff in post-doctoral positions, providing them with project support and technology transfer support; they can choose from further education, career counselling or mobility programmes, or they can take advantage of measures enabling the reconciliation of personal and professional life. Further specific support for students of doctoral study programmes and post-doctoral students at BUT is implemented at the level of individual faculties and departments. This is mainly due to the specificity and financial demands of the training programmes for these students and young researchers.

Students of doctoral programmes are most often involved in projects organised within the framework of student grant competitions funded from the MEYS funds allocated to BUT for specific university research. This grant competition is described in Chapter 9.2.

Offering further education is a very important part of the support for doctoral students and staff in post-doctoral positions. The Lifelong Learning Institute (LLI) BUT offers a wide range of courses aimed at acquiring knowledge and skills important for future careers, whether in the academic and research sphere, in industry, in managerial positions, or in setting up and running your own business. In addition to courses focused on soft skills (e.g. stress management, time management, teamwork, assertiveness and conflict management, various self-development courses, etc.), there are also courses for developing knowledge of working with various software, the legal minimum and other practical skills (presentation skills, effective learning, stylistics of contemporary Czech, etc.). Doctoral students at BUT have the opportunity to extend their qualifications by additional pedagogical studies. This is a one-year course provided by LLI, and upon proper completion of the course, the person concerned will receive a certificate of completion. We offer language courses including Czech for foreigners. LLI also offers career counselling.

Some BUT faculties cooperate in the implementation of doctoral studies with selected institutes of the Academy of Sciences of the Czech Republic, such as the Institute of Analytical Chemistry, the Institute of Materials Physics and the Institute of Instrumentation, based on the Agreement on Cooperation in the Education of Doctoral Students.

BUT supports the mobility of doctoral students and staff in post-doctoral positions. Doctoral students are required to spend at least one month while studying abroad in order to gain the necessary experience. During their stay abroad, they are financially supported from institutional support projects, within which the university has set up a special project for the mobility of doctoral students. BUT also allocated a contribution to support international cooperation from MEYS for the stays of doctoral students and academic staff abroad. BUT's key priority is also to attract doctoral and post-doctoral students from abroad.

The quality of the work of doctoral and post-doctoral students is also evident from the fact that many of them received awards for their work in 2022. For example, students from the Brno University of Technology won eleven out of the twenty-five places awarded in the Ph.D. Talent scholarship programme, which represents the greatest success by BUT in the history of the competition. The young scientists managed to excel in the competition of 145 applicants and they were awarded not only by Czech scientists but also by top experts from abroad. More information about the awardees can be found in the introductory section of the Annual Report.

In the area of reconciling work and personal life, BUT offers its employees flexible working hours, holidays over and above those legally required, the offer of sports activities, discounted meals, recreational accommodation and other benefits. BUT also has a mini-kindergarten designed for irregular short-term care of the children of parents employed at the university which is open from 7 am to 5 pm.

9.5 Cooperation with the application sphere on the creation and transfer of innovations and their commercialisation

During the year 2022, the main priorities of the BUT Technology Transfer Office (hereinafter referred to as TTO) focused on the protection of intellectual property and legal support for the preparation of individual collaboration projects with the commercial sphere. In the field of intellectual property, a total of 51 findings were registered during 2022. At the end of the year, a total of 793 registered findings were recorded. These numbers involve 117 authors. Following the exercise of the right by the BUT Rector, thirteen international patent applications, eleven patent applications in the Czech Republic and 28 utility model applications were filed out of the given notifications. In 2022, the university was granted a total of two foreign patents, six Czech patents and 22 utility models.

As in previous years, most of the inventions in 2022 were the result of grant projects, mainly under the auspices of the Technology Agency of the Czech Republic. These projects were carried out in collaboration with partners from the commercial sphere. The number of submitted projects has increased year-on-year to 257 (122 in 2021) and of these, 48 have been approved for funding to date, although for 82 submitted projects it has not been made public yet whether they have been approved or not. During 2022, a total of thirteen IPR licensing agreements were concluded. The total number of licensing agreements in force in 2022 amounted to 83.

Financial income from the commercialisation of industrial protection rights reached a total of CZK 2,032 thousand in 2022. The highest income is recorded from the Licensing Agreement for the Rescue of Unmanned Aerial Vehicles – approximately CZK 730 thousand. The following is the sale of rights to UV 3D printable photopolymer resin from renewable sources, especially for low-intensity irradiation technologies – CZK 300 thousand. Interesting revenue was obtained from the Licensing Agreement for Mechanical Mounting of the Measuring Head for Microscopy with a Raster Probe – CZK 215 thousand. The fourth highest revenue was generated by the licensing agreement for the project Under Sleeper Pads for Switches – CZK 114 thousand.

Support for the establishment and subsequent activities of spin-off and start-up companies is one of the basic tools for creating the potential for commercialisation at BUT. Their number did not increase during 2022. As of 31 December 2022, there were a total of seven companies registered at the university that use the BUT spin-off designation. These are:

- NetX Networks, a. s., ConWe, s. r. o., NenoVision s. r. o. and RehiveTech, spol. s r. o., which is a BUT spin-off. However, ConWe, s. r. o., and NetX Networks, a. s., had their agreements extended in 2021, i.e., the situation will have to be reviewed during 2023. The other agreements were concluded without any time limit.
- TriCera s. r. o. is a BUT spin-off, the agreement was signed in May 2021. Due to the expiry of the protection of the invention in question, it was agreed in November 2022 to terminate the agreement on the use of the BUT spin-off designation and to conclude a BUT Start-up Agreement.
- Brnologic, spol. s r. o., is a spin-off with the participation of BUT. The company was established on 1 October 2021 and FIT is involved in the project.
- 3Deposition s. r. o. became a quasi spin-off company of BUT in June 2021. The company does not yet use BUT intellectual property and thus the essence of the BUT spin-off designation is not fulfilled. Negotiations on the agreements are currently in progress.

At present, five projects of new BUT spin-off and start-up companies are under development. Three of them are at FCE, one at FEEC and one at CEITEC BUT.

9.6 Support for horizontal (cross-sectoral) mobility and education aimed at developing competencies for innovative entrepreneurship

In 2022, the 3rd year of the BUT Student Entrepreneurship Award took place. The competition is intended for all students of BUT bachelor, master and doctoral programmes and its aim is to support students in the development and implementation of their business ideas. In view of the priority of the development of entrepreneurship at BUT, its entrepreneurial ecosystem and the development of student activities, the amount of money distributed by the expert jury to support entrepreneurship among the competing teams has been increased to a total of CZK 1 million. As in previous years, the South Moravian Innovation Centre participated in the implementation of the competition. The competing teams were newly offered the opportunity to acquire and improve their communication skills and a Mentoring Day was organised in cooperation with the South Moravian Innovation Centre. It has already been a matter of course that students from all BUT faculties can enrol in the semester-long course Business Idea Development and Implementation.

Ing. Pavel Šafl, a student at the Faculty of Electrical Engineering and Communication, demonstrated incredible progress and was judged the winner of the competition. He was able to develop his idea of creating educational tools in the IT field extremely well during the competition. He founded a limited liability company (OMG Robotics s. r. o.), established cooperation with large Czech e-shops and launched a subscription service for the B2B market. He took full advantage of the support offered by BUT and the South Moravian Innovation Centre. The huge contribution of OMG Robotics lies primarily in its efforts to develop interest in programming, 3D printing, electrical engineering and other fields not only among future engineering students, but also among the general public. His kits are appreciated not only by science teachers at primary and secondary schools, but also by anyone who wants to build working robots.

Second place went to Monika Wikarská, a student at the Faculty of Chemistry, who designs and produces effective cosmetics Wikarska in symbiosis with nature. The evaluation committee, consisting of representatives of BUT and the South Moravian Innovation Centre, appreciated the concept itself and its potential, and praised the turnover and real sales data for the previous period.

Third place was claimed by the most technically demanding project by Tomáš Němec, a student of the Faculty of Mechanical Engineering, who decided to modify the forest machine (harvester) with a special part to simplify the process of treating trunks infected by bark beetle, when during felling and pruning there is also spraying (treatment) of the trunk itself.

Another event aimed at promoting entrepreneurship at BUT was the Velvet Innovation Meet up conference organised in cooperation with the South Moravian Innovation Centre. It was a meeting connecting members of the innovation ecosystem of the Brno region, during which the participants shared the successes of the existing projects, but also looked for opportunities for new cooperation. Thanks to the conference, students and academic and research staff had the opportunity to be inspired by entrepreneurial stories, research projects and innovation initiatives that are current in the South Moravian innovation ecosystem. During the event, selected student teams and BUT employees were given the opportunity to present their ideas and projects through short presentations.

The topic of support for cross-sectoral mobility and the development of education aimed at developing competences for innovative entrepreneurship was also regularly discussed by BUT representatives at the Council for Innovation of the South Moravian Region, which is also a working group of the Regional Innovation Strategy of the South Moravian Region (RIS SMR), which aims to develop economic competitiveness and value creation through the introduction of innovation, and contributes to the growth of living standards in the region. During the meeting, there was discussion on the BUT strategic projects focused on cutting-edge research within the Operational Programme Jan Amos Komenský (OP JAK), which have a significant impact on the field specialisation, and which, after the discussion were included among the projects of the RIS SMR 2021–2027 Action Plan.

10 Significant events related to the quality and evaluation of implemented activities in the year 2022

As part of the organisational changes, the university management completely reconstructed the quality management system in order to anchor analytics as a supporting entity for decision-making in the following areas:

- education,
- research and creative activities,
- service to society,
- internationalisation,
- governance.

An integral part of quality management and assurance is the measurement and collection of data and its evaluation, which is why the Quality Department with analytical capacities and the Strategic Management Department were merged and a new Department of Development and Analysis was established. The intention of this reorganisation is to strengthen the quality of activities in terms of an attribute that is inherent in all processes at the university. It is based on the thesis that quality is a characteristic, not an organisational setting.

The perception of quality and quality assurance is undergoing a "transformation", especially in the area of understanding quality as a whole (the emergence of a systemic area), which raises the need to create an environment of quality culture and its cultivation at all levels of the university.

At the same time, work was started on strengthening quality management with the aim of increasing the usefulness and necessity of input data to support the strategic management of BUT and individual faculties, which provokes a change in the concept of the quality management system and at the same time the role of the Internal Evaluation Board is being clarified, where in the context of institutional accreditation the Internal Evaluation Board is focused in particular on the creation and quality of study programmes and the educational process.

In order to strengthen the quality of scientific and creative activities, BUT has implemented a disciplinary division in the context of the Methodology 17+ methodology and also the establishment of the International Scientific Board. With regard to the combination of technical and artistic disciplines at BUT, the qualitative outputs in the area of budget measures were also significantly strengthened to align the Register of Artistic Outputs (RUV) and Information Register of R&D results (RIV) approaches. BUT also succeeded in filling important positions in grant programme providers (TA CR and GA CR) and on the Research, Development and Innovation Board, which will undoubtedly contribute to better quality outputs in the scientific and creative fields.

Last but not least, BUT has taken systemic steps to emphasise those activities that serve the public and are the third role of the university. These activities were also analysed in terms of quality or perception of quality. The biggest changes will take place in the area of BUT institutional international marketing, where a qualitative shift should be reflected in BUT's position in individual foreign rankings.

Considerable attention was paid to the preparation and discussion of the Appendix to the Report on Quality Assurance and Internal Quality Assessment at BUT for 2021. The Appendix reflects the quality improvement measures taken in the previous year with regard to the continuous development of the internal quality management system, taking into account the European Standards and Guidelines.

In 2022, a proposal of the Methodology of Quality Assurance and Evaluation at BUT was completed. This proposal is the result of the activity A8 RE 01 Development of a System for Internal Quality Assurance and Evaluation of the MOST (Modern and Open Study of Technology) project. On the basis of the proposal Methodology of Quality Assurance and Evaluation at BUT, a system of quality indicators was completed, which were tested at the BUT Faculty of Business and Management and subsequently adjusted and fine-tuned by the staff of the Department of Development and Analysis on the basis of the results obtained. The specific output of this activity was an evaluation report, which consists of three basic parts: evaluation and quality assurance of the pedagogical process, the scientific research process at BUT FBM, and indicators of quality assessment of the third role of BUT FBM. Employees of the Department of Development and Analysis cooperated with employees of other universities (especially VSB – Technical University of Ostrava) on the above tests of specific indicators, using specific data obtained from the faculty management system.

We took a very important step in the area of quality by analysing the position of BUT within European universities as well as domestic universities (especially technical universities), while at the same time analysing the needs and specifics of education at technical universities in the Czech Republic. For this reason, the BUT management held a meeting with representatives of the Times Higher Education ranking in Brno, and preparations are underway for a meeting with representatives of the QS ranking. Analytical materials were developed on the issue of evaluation criteria in international rankings (THE, QS Ranking). On the basis of this material, areas in which BUT has weaknesses are being strengthened. Selected specific criteria identified in the analyses of selected international rankings were also used to prepare the BUT Budget Rules for 2023.

In 2022, partial cooperation continued on the preparation of the international quality assessment in the framework of the U-Map and U-Multirank projects. However, the main activity on the international field included organisation of the visit of the evaluators from the European University Association (EUA) and the preparation of the self-assessment report, in which BUT emphasised the progress made since the last EUA evaluation in 2018. The self-assessment report was a key background document for the EUA external evaluators. The actual visit of the evaluators took place in November 2022. The evaluation assesses progress since the completion of the initial evaluation, making suggestions and recommendations for improvement in each area of the institution's activities, as well as the risks arising from the findings. Suggestions and recommendations made by EUA will be incorporated into the BUT conceptual and strategic documents.

11 National and international excellence of the university

11.1 International and significant national research, development and creative activities, integration of research infrastructure into international networks and involvement of BUT in professional and artistic networks

BUT is a member of a number of important institutions, scientific and artistic networks, organisations and associations. Below are listed selected international organisations in which BUT representatives are active:

Association of European Schools of Planning, The American Ceramic Society, Conference of European Schools of Advanced Engineering Education and Research (CESAEER), CISCO Networking Academy, European League of Institutes of the Arts, European Quality Association for Recycling, European Universities Public Relations and Information Officers, European Association for Accident Research and Analysis, European Structural Integrity Society, European University Association, European Association for International Education, European Universities Linking Society and Technology, Global Business and Technology Association, Gesellschaft für Informatik, International Council of the Aeronautical Sciences, International Federation for the Promotion of Mechanism and Machine Science, The International Federation for Structural Concrete, The International Union for Vacuum Science, Technique and Applications, Federation of European Heating, Ventilation and Air Conditioning Associations, Transformation in Business and Economics, Die Wissenschaftlich-Technische Arbeitsgemeinschaft für Bauwerkserhaltung und Denkmalpflege and many others.

In addition, BUT staff are active in a number of professional associations, organisations and societies. Among those may be mentioned:

Association of Libraries of Czech Universities, Association of Mechanical Engineers, Association of Experts and Appraisers of the Czech Republic, Czech Education and Scientific NETwork (CESNET), Czech and Slovak Society for Soil Mechanics and Geotechnical Engineering, Czech Concrete Society, Czech Physical Society, Czech Chamber of Chartered Engineers and Technicians Engaged in Construction, Czech Foundrymen Society, Czech Chemical Society, Czech Society for Mechanics, Czech Society for Non-Destructive Testing, Czech Welding Society, Czech Vacuum Society, Czech Society for New Materials and Technologies, Czech National Hydrology Committee, Czech-Moravian Association of Businesswomen and Managers, Electrical and Electronic Association of the Czech Republic, European Association for Biometrics, Institute of Electrical and Electronics Engineers, International Society for Optics and Photonics, International Society of Electrochemistry, International Union of Radio Science, Union of Czech Mathematicians and Physicists, National platform Transfera, Association for Railway Infrastructure, Concrete Structures Repair Association, Society for Radio Electronics Engineering, Society for Environmental Engineering, Association of Czech Booksellers and Publishers, Technical Standardization Committee of the Czech Standardization Agency, Energy Safety Technology Platform, Scientific and Technical Society for Building Rehabilitation and Preservation, etc.

11.2 BUT national and international awards in 2022

An extensive list of awards can be found in the introductory part of the Annual Report under Achievements and awards at BUT. We can briefly mention, for example, the Werner von Siemens Prize, the Josef Hlávka Prize, the Brno City Prize, the Brno Ph.D. Talent awards, the National Award for Student Design, the Red Dot Awards, the Jan Kotěra Award, the title School Recommended by Employers, the Gold Medal of the International Engineering Fair and an award from the Czechoslovak Microscopy Society.

11.3 BUT international evaluation, including foreign accreditations

On 30 July 2022, BUT joined the Association of Research Universities (AVU), which aims to bring together Czech universities that build their competitive advantage on cutting-edge research and thus create opportunities for the development of quality education. Brno University of Technology will thus complement the existing members: Charles University, Masaryk University, Palacký University Olomouc, Czech Technical University in Prague and the University of Chemistry and Technology Prague.

In 2022, BUT filed registration for re-evaluation by the European University Association (EUA) within its Institutional Evaluation Programme. The re-evaluation follows the 2018 international assessment. According to EUA experts, the university has successfully fulfilled the recommendations of the 2018 institutional evaluation. In the context of recent and current external challenges, the team noted that the university is generally doing very well. It has a good understanding of the external environment, is fully aware of competitiveness, including the importance of excellence in research and increasing internationalisation. The evaluators appreciated the improvements in the area of management, specifically in the centralisation of support processes, and praised the division of powers between the faculties and university institutes of BUT and the central BUT bodies. In this context, progress has been made in the centralisation of BUT IS and in the systematic use of analytical tools for objective decision-making.

In the QS World University Rankings, BUT ranks 701st–750th, the same as in the previous year. The strongest criteria are traditionally the degree of student internationalisation and the university's reputation among employers. However, changes to the methodology for the next edition suggest a strong position in the newly introduced International Research Network criterion. This has already been shown by the evaluation in the QS Subject Rankings, where (thanks to this top-ranked criterion) BUT appeared for the first time in the three hundred best universities in the world in the category of Engineering and Technology, namely in 247th place. The university was successful in seven sub-disciplines, and in the Architecture / Built Environment category the university was evaluated for the first time, and immediately as the best of the Czech institutions, in 201st–230th place. A similar ranking (201st–250th) was also awarded to the Brno University of Technology in the Electrical & Electronic Engineering category, in which it moved into the top 50 year-on-year. Success was also achieved in Mechanical, Aeronautical & Manufacturing Engineering (251st–300th), Materials Science (301st–350th), Computer Science & Information Systems (351st–400th), Mathematics (351st–400th) and Chemistry (451st–500th).

In the overall ranking of Times Higher Education, BUT is now in the category 1,201st–1,500th, as is the Czech Technical University. Of the five areas that contribute to the overall score, BUT performs best in the internationalisation criteria and also in the assessment of its funding, receiving a large proportion of its income from industry. In the ranking of the Engineering & Technology category, BUT ranks 801st–1,000th, and one category higher (601st–800th) in Business & Economics and Computer Science.

In the ARWU International Ranking of Universities, known as the Shanghai Ranking, announced in August 2022, BUT shared 901st–1000th position. It achieves the best results in the twin fields of Electrical & Electronic Engineering and Nanoscience & Nanotechnology, where it ranks 301st–400th. The methodology of the ranking is based primarily on the scientific and research level of individual institutions, and uses six indicators for the evaluation, including the number of articles published in the journals Nature and Science. The ranking has traditionally been dominated by American universities, with Harvard University repeatedly taking the lead. Eight universities were ranked in the overall ranking for the Czech Republic, but others scored at least in the subject categories.

12 Third role

12.1 Transfer of knowledge into practice

At Brno University of Technology, the transfer of knowledge into practice takes place within the framework of active and long-term cooperation between individual participants from the university and representatives of external companies. This transfer also includes facilitating the creation of spin-off and start-up companies in the BUT internal environment as one of the elements of active support for the commercial use of intellectual property. The administrative and registration part and the university-wide support of the processes of intellectual property protection fall within the agenda of the BUT Technology Transfer Office. As a modern university with high scientific potential, BUT concentrates on all areas of human activity and participates in research in areas of social importance, whether it is the development of new technologies, human safety or environmental protection.

A topic that often resonates today is the issue of clean and quality water. In 2021, a new technology from FME for water purification by cavitation scored points at the International Engineering Fair in Brno, and in 2022, the first test licensing agreements for the CaviPlasma technology, which provides quaternary water purification, i.e. the fourth stage of purification, were concluded. This treatment is designed to remove chemicals, microplastics, oestrogens and pathogenic microorganisms from water. Indications are that in the future quaternary treatment will be a requirement of every wastewater treatment plant. The first licensed collaborations with industrial partners should carry out large-scale tests directly in non-stop mode at a real wastewater treatment plant. In addition, the technology produces very small amounts of hydrogen peroxide in its operation, but its concentration can be increased in a repeated process and can be used as a disinfectant. This can be used, for example, in the disinfection of medical premises. Water treated in this way is also currently being tested in hydroponics, a modern way of growing plants in solution. By the end of the first test runs, the appropriate foreign patents should have been granted and a suitable partner for the foreign market will be selected.

BUT is proud to cooperate with Prusa Polymers a. s., the fastest growing technology company in Central Europe. This is a collaboration in which scientists from CEITEC invented a 3D printable photopolymer resin based on natural materials, monomers, whose composition suppresses the unsuitable properties of these monomers. The resin is usable for 3D printing and Prusa Polymers a. s. plans to use it in the future, to further investigate and possibly improve its properties. For these reasons, the rights to the solution were transferred to Prusa Polymers a. s.

In the area of ensuring the safety of life and health of our citizens, BUT cooperated with AŽD Praha s. r. o., a major supplier of security and signalling technology for rail transport, which focuses mainly on railway transport. In 2022, BUT sold the rights to the utility model of the Detection Device to this company. The utility model, which was developed by scientists from FEEC, is an autonomous system for detecting risky situations at level crossings. The proposed camera system evaluates the trajectory of the vehicles and is thus able to assess whether there is a risky situation, for example, vehicles turning in the crossing area, prohibited overtaking or blocking the crossing. In addition to improving safety at level crossings, the system can statistically evaluate the traffic load, traffic density, and also assess the frequency of vehicle type, i.e. distinguish between passenger car, truck or bus.

At FCE, our scientists have found a technical solution in the field of automated flushing of water supply networks protected by a patent and utility model. At the beginning of the year, a licensing agreement was signed with VODA Brno, s. r. o., and subsequently mutual negotiations began on granting the status of a spin-off company to BUT and on the possible signing of another licensing agreement.

12.2 Operating in the region, cooperation with regional governments and major institutions in the region

In 2022, BUT signed an agreement with representatives of the South Moravian Region on the concept of development of regional education with a focus on mathematics and physics. The university addresses primary school pupils and students in the lower years of multi-year grammar schools with an offer to participate in the university project BUT Junior, a project thanks to which pupils and students have the opportunity to gradually get acquainted with all BUT faculties and university institutes. Classes are taught in person; if necessary, the project can be implemented online.

BUT Roadshow is organised for students of secondary schools with the offer of all BUT study programmes and with the participation of "ambassadors" from individual faculties and higher education institutes of BUT; the individual events are tailored to the focus of the hosting secondary school.

In 2022, the BUT Rector signed a memorandum of cooperation on the development of electromobility in cooperation with the City of Brno. The aim is to work more closely together to accelerate the development of electromobility and to create conditions for its use by the general public. The memorandum also envisages an opportunity for students who can focus on electromobility topics in their bachelor's and master's theses; students will also be able to participate in the trainee programme of the Brno heating plant, which is the guarantor of electromobility development for the City.

In the long term context, BUT supports close links between academic research at the university and businesses, and in this area considerable progress can be noted in recent years. Strengthening the links between BUT and the application sphere will lead to further project opportunities, collaborative projects, accelerating contract research and objectively measured applicability of results such as licensing agreements, the creation of spin-off companies, the provision of consultancy and the resulting financial profit and further increasing the competitiveness of BUT as a major technical university on a national and international scale.

Students of the Faculty of Fine Arts of the BUT participated in the interior modification of the new pavilions of the Masaryk Memorial Cancer Institute, which was built in 2022. The psychological state of the patient is an unforgettable aspect in the treatment of cancer patients, and for this reason the Masaryk Memorial Cancer Institute has continued its cooperation with FFA BUT to modify the interior.

Scientists from Brno University of Technology are actively involved in popularising scientific or artistic events organised in the region, such as the Days of Electron Microscopy, Open House Brno, Open Studios Brno and the Festival of Science of the South Moravian Region held by the Brno Observatory and Planetarium.

BUT cooperates with institutes of the Czech Academy of Sciences mainly at the level of basic research and doctoral studies. Experts from the CAS institutes are supervisors of theses and thus able to improve the quality of teaching of Ph.D. students in areas where the institutes have world-renowned experts and quality technical background.

12.3 Super-regional activities and importance of BUT

BUT is not only an educational and research institution, but also a cultural institution. It covers not only technical disciplines, but its complexity and originality is also ensured through its competences in art, design and architecture.

BUT reflects current social developments and contributes significantly to the dissemination of the latest scientific and artistic knowledge and values in many different ways. Its aim is to be in close and mutually open contact with society at national and international levels.

One of the results, which also has a very strong social impact, is the exhibition by the authors of 99 Brno Brickyards Historical development of building materials from fired clay and their production in the city of Brno, doc. Ing. Ondřej Anton, Ph.D., and Mgr. Petr Holub. The exhibition was also accompanied by a comprehensive catalogue. The exhibition was installed on the premises of FCE and presented the results of research in the field of locating and identifying the owners and operators of brickyards in the City of Brno, including a clear map, archival materials and contemporary artifacts. The exhibition also described the historical development of bricks, their dimensions, surface marks, markings, etc. All the information was then presented with an extension from the Brno region to the whole Czech Republic and partly to Slovakia and Austria.

The impact of ongoing climate change and related requirements for building efficiency is illustrated in the article entitled Overview and future Challenges of Nearly Zero Energy Building (nZEB) Design in Eastern Europe recently published in Energy and Buildings, co-authored by Ing. Roman Brzoň, Ph.D., and Ing. Karel Struhala, Ph.D., from the Institute of Civil Engineering FCE. The article presents the results of a study focused on the implementation of zero energy buildings (nZEB) in Eastern European countries, namely Bulgaria, Croatia, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Romania and Slovakia.

FFA prepared a symposium entitled Communities of the Future: Ecology and Institutions of Creative Practice, which took place on 21 June. The symposium focused on creative practice that attempts to co-create more just communities. In doing so, it critically defines itself against the unjust systems of power that structure how we relate to ourselves, to others, and to the world around us. These possible communities, the communities of the future, are understood in both an institutional and ecological sense, and their thinking is informed by feminist, anti-colonial and environmental art and thought, which focuses primarily on issues related to education, collective organising and the relationship between humans and nature. The aim of the symposium was to provide a platform for developing together the sensitivity that is necessary to transform the current unsustainable status quo defined by the climate crisis, the precariousness of work and the rise of inequalities both locally and globally.

FCH hosted world-leading experts in bio-organic electronics at the Bio and Sustainable Organic Electronics workshop on 5 and 6 October 2022. The workshop was attended by prof. Niyazi Serdar Sariciftci, Director of the Institute of Organic Solar Cells (LIOS) and the Institute of Physical Chemistry at

JKU Linz. He is one of the world's most respected personalities and one of the most cited scientists in his field of research. Another esteemed participant was prof. Gianluca Maria Farinola, Vice President of the Italian Chemical Society, President of the Organic Chemistry Division (European Society of Chemistry) and Vice Rector for Science and Research at the University of Bari.

Research in the field of water purification at FME, for example, purification of water from microorganisms and chemical residues using low-temperature plasma, or theses focused on environmentally friendly energy management, etc., have also contributed to the increased awareness of BUT students. These themes are also reflected in the study programmes guaranteed by FME. The SPIL (Sustainable processes integrated laboratory) team at the FME deals with the technical aspect of sustainability.

It should be emphasised that also on the basis of the students' initiative a systematic waste sorting at the university was initiated.

In 2022, BUT joined the University Leaders in SDG (UNILEAD), a centralised development project that maps and supports activities to meet the Sustainable Development Goals at various universities.

Public lectures for the wider public are seen by BUT as one of the main activities in its third role of the university, i.e. service to society. These lectures are implemented at BUT mainly through the BUT University of the Third Age (U3V), which is designed for the elderly. The BUT Junior University targets primary and secondary school students. Some employees of BUT faculties and university institutes also organise professional popularisation lectures according to the focus of their research activities. BUT faculties organise summer schools for secondary school students. Lectures for the general public were moved online during the pandemic, but the general public (especially seniors) see online courses only as an emergency solution and mostly require traditional face-to-face lectures, which also have a social dimension for them.

13 University activities in connection with the effects of the state of war in Ukraine

At the time of the outbreak of the war in Ukraine, approximately 290 students from Ukraine, almost 600 students from Russia and 100 students from Belarus were studying at BUT. All of these students were assured by the BUT management from the beginning that the school would continue to treat them fairly and without any discrimination, in compliance with all regulations and standards. An information section for students and applicants from Ukraine has been set up on the BUT website with the intention of publishing up-to-date information in Czech, English and often also in Ukrainian.

Since the beginning of the conflict, BUT students have also been actively involved in helping Ukrainian refugees. Through social networks, students informed people about the possibility of helping, for example, through volunteer collections in Brno and across the country, and organised or helped organise charity collections at their faculties or in student organisations and associations.

Especially in the first months of the war, spontaneous expressions of support occurred at individual faculties. Students at FA initiated the tying of ribbons in Ukrainian colours on the fence of the faculty, where they also placed a sign referring to interviews with foreign students on the topic of the war. A student-initiated collection point for material aid was set up in the MINI gallery at FA, which was quickly filled thanks to students and faculty staff. Collections in support of Ukraine were also held at other faculties. 89 sorted and packed boxes were taken from CEITEC BUT to the collection point of the Expedition Clubhouse on Palackého třída, from where the material was transported to trains bound for Ukrainian cities. At FIT, a fundraiser to support Ukraine was organised by the FIT BUT Student Union, which held a special event in its club U Kachničky and donated the collected membership fees to the Red Cross to help Ukraine. FCE students were actively involved in the activities of the Assistance Centre at the Brno Exhibition Centre.

FFA has chosen a creative form of assistance by repeatedly holding charity auctions of artworks by its students and teachers, the proceeds of which have been donated to humanitarian support in Ukraine. Participants of the FFA Books for Ukraine event could support Ukrainian students at FFA and BUT by purchasing books published by the faculty. In the spring months of 2022, the faculty held a series of art workshops for Ukrainian children.

FFA student Barbora Bažantová, along with students from AVU (Academy of Fine Arts) and FAMU (Film and TV School), organised an event called Camp Solidarity, which was a several-day occupation of the space in front of the Embassy of the Russian Federation in Prague with a cultural programme and cook-out – a spontaneous reaction to the beginning of the war, a meeting of people from the Czech Republic and Ukraine – an open gathering place. Documentation of the event is available on FB and IG Camp Solidarity. Out of this occupation the Ukrainian kindergarten project, Tábor Solidarity Klubovna, subsequently emerged. The kindergarten is run by FFA student Tadeáš Polák along with two colleagues.

The first actions that the BUT as an institution tried to actively engage in helping Ukrainian students were the payment of a one-off scholarship of CZK 5,000 to all students from Ukraine and the provision of accommodation in the halls of residence for family members of our students who came to Brno and for whom an issue counter with meals from the university canteen was set up. A total of around two hundred people were accommodated in the BUT halls of residence, with the accommodation initially fully paid for. Later, as a result of coordination within the South Moravian Region, it was decided that BUT would accept deaf refugees for whom it could provide a sign language interpreter from its Alfons Counselling Centre. At the end of 2022, 94 refugees were accommodated in the BUT halls of residence, 25 of whom were deaf.

At the same time as the influx of refugees from Ukraine to the Czech Republic, the number of applicants from that country has also increased, especially among students in their final year of secondary school. BUT accepted applications for bachelor's degree programmes until 31 March in 2022, so some applicants managed to submit their applications in due course after their arrival in Brno. Some BUT faculties and departments then accepted applications in accordance with Act No.67/2022 Coll., even on the newly announced deadlines intended only for Ukrainian refugees. At the same time, the Rector waived the fee associated with the admission procedure for Ukrainian refugees, as well as the fee for the assessment of previous foreign education.

BUT offered mainly study programmes in Czech to Ukrainian applicants, provided that applicants were able to achieve a sufficient level of proficiency in Czech by the beginning of the academic year. In a number of cases, the applicants were exempted from the Czech language entrance exam or the exam was postponed until the end of the holidays to give the applicants more time to master the language. All faculties agree that Ukrainian students still have the greatest problems with mastering the Czech language, especially with professional terminology. But as of September 2022, they are showing significant progress. Students appreciate both the help of the faculty administration and the individual approach of many teachers who devote time to Ukrainian students beyond their regular teaching. Although BUT as a technical school did not have the opportunity to provide Czech language courses for all future students, from June to mid-September 2022, a total of seven Czech language courses were held at the Lifelong Learning Institute, with eleven lecturers rotating on a continuous basis. The lessons were held every day for five hours and the courses ended with a final written and oral exam, after which the students received a certificate of their achieved language level. BUT also purchased a two-semester online Czech language

course for foreigners from a language school in 2022 to help all foreign students in Czech study programmes improve their Czech language competences. FIT and FCE also provided Czech language courses for their applicants.

For applicants who came from Ukraine in their last year of secondary school and completed their secondary education in Ukraine from the Czech Republic, the fact that they were often minors was also a formal problem. A lawyer had to act on their behalf, especially for the enrolment process. Proving previous education in a situation where the applicant did not have the necessary documents was another formal problem that BUT had to deal with in relation to newly admitted students. All of this was dealt with in accordance with Act No. 67/2022 Coll.

BUT also had to deal with regulations on the application of sanctions against Russian and Belarusian students. First, it was necessary to carefully determine whether BUT had study programmes that had to be identified as critical and Russian and Belarusian students could no longer study there. Decision No. 11/2022 – Study of Students from the Russian Federation and Belarus in the Context of the War of Aggression against Ukraine was issued, setting out the procedure for cases where a Russian or Belarusian student is currently studying or has applied for a critical study programme. Only FCE and FEEC run critical study programmes at BUT. These faculties did not accept new Russian and Belarusian students into critical programmes, and existing students were suspended or offered to study in another programme that was not assessed as critical.

At the end of 2022, approximately 460 Ukrainian students, 580 Russian students and approximately 100 Belarusian students were studying at BUT.

BUT individual faculties also had to deal with the problems of Ukrainian students. For example, FCH did not primarily distinguish between students directly from Ukraine when providing assistance to students, a. s.udents from other countries were also significantly affected by the current political situation. The faculty was able to offer several students a job opportunity and thus provide them with at least limited funds to cover their living costs while studying. Some students were involved in MEYS scholarship programmes.

In 2022, the largest number of students from Ukraine studied at FIT, 157 in total (before the outbreak of the war in Ukraine there were 42). After the winter semester, the success rate in the first year of Bachelor studies is around 68%. Free Czech language courses were provided to first-year students prior to the start of classes, which may account for the relatively high success rate of these students. If a student was just a few credits short of the required credits to advance to the next semester, they could request an exception to advance to the next semester, and in many cases the exception was granted.

The success rate of Ukrainian students in the first year at FEEC is as high as 76%, which can be attributed to the teachers' efforts to devote maximum attention to these students.

FFA has accommodated the students by organising an extraordinary admission procedure for Bachelor's studies and the successful students have integrated very well into the faculty.

There are currently 39 students from Ukraine studying at FME, whereas before the outbreak of the war there were ten fewer. They are treated the same as all other students in fulfilling their study obligations, and individual needs are addressed through the standard procedure of submitting an application. Since the beginning of the war, the faculty has financially supported students with extraordinary scholarships. Students' biggest problem is the Czech language, but there is improvement and an effort to improve their knowledge.

Applicants with temporary protection on the territory of the Czech Republic were exempted from the entrance exam at FBM. Existing students were awarded scholarships to support their studies after the assessment of their individual application, and all Ukrainian students were given an extended exam period until 31 July to give them a chance to complete their requirements.

CEITEC BUT supported its current Ukrainian students with an extraordinary scholarship.

TABULAR PART

OF THE BUT ANNUAL REPORT FOR 2022

Tab. 2.1: Accredited study programmes (numbers)

Brno University of Technology		Bachelor's studies		Master's studies		Follow-up Master's studies		Ph.D. studies		Total
		F	C/D	F	C/D	F	C/D	F	C/D	
Faculty of Civil Engineering										
Broadly defined ISCED-F fields	code									
Natural sciences, mathematics and statistics	05	1	0	0	0	1	0	2	2	6
Technology, production and construction	07	10	3	0	0	14	2	10	10	49
Faculty total	**X**	**11**	**3**	**0**	**0**	**15**	**2**	**12**	**12**	**55**
Faculty of Mechanical Engineering										
Broadly defined ISCED-F fields	code									
Arts and humanities	02	1	0	0	0	1	0	0	0	2
Natural sciences, mathematics and statistics	05	1	0	0	0	4	0	2	2	9
Technology, production and construction	07	9	2	0	0	20	5	17	17	70
Services	10	1	0	0	0	0	0	0	0	1
Faculty total	**X**	**12**	**2**	**0**	**0**	**25**	**5**	**19**	**19**	**82**
Faculty of Electrical Engineering and Communication Technologies										
Broadly defined ISCED-F fields	code									
Arts and humanities	02	1	0	0	0	0	0	0	0	1
Information and communication technologies	06	2	0	0	0	2	0	5	5	14
Technology, production and construction	07	7	4	0	0	20	5	12	12	60
Faculty total	**X**	**10**	**4**	**0**	**0**	**22**	**5**	**17**	**17**	**75**
Faculty of Architecture										
Broadly defined ISCED-F fields	code									
Technology, production and construction	07	2	0	0	0	4	0	2	2	10
Faculty total	**X**	**2**	**0**	**0**	**0**	**4**	**0**	**2**	**2**	**10**
Faculty of Chemistry										
Broadly defined ISCED-F fields	code									
Natural sciences, mathematics and statistics	05	3	2	0	0	4	2	8	8	27
Technology, production and construction	07	6	6	0	0	7	6	5	5	35
Faculty total	**X**	**9**	**8**	**0**	**0**	**11**	**8**	**13**	**13**	**62**
Faculty of Business and Management										
Broadly defined ISCED-F fields	code									
Social sciences, journalism and information sciences	03	0	0	0	0	2	0	0	0	2
Business, administration and law	04	5	0	0	0	4	3	2	2	16
Faculty total	**X**	**5**	**0**	**0**	**0**	**6**	**3**	**2**	**2**	**18**
Faculty of Fine Arts										
Broadly defined ISCED-F fields	code									
Arts and humanities	02	1	0	0	0	2	0	1	2	6
Faculty total	**X**	**1**	**0**	**0**	**0**	**2**	**0**	**1**	**2**	**6**
Faculty of Information Technology										
Broadly defined ISCED-F fields	code									
Information and communication technologies	06	3	0	0	0	4	0	4	4	15
Faculty total	**X**	**3**	**0**	**0**	**0**	**4**	**0**	**4**	**4**	**15**

Brno University of Technology		Bachelor's studies		Master's studies		Follow-up Master's studies		Ph.D. studies		Total
		F	C/D	F	C/D	F	C/D	F	C/D	
Institute of Forensic Engineering										
Broadly defined ISCED-F fields	code									
Technology, production and construction	07	0	0	0	0	2	0	1	1	4
Services	10	0	0	0	0	1	0	0	0	1
Department total	**X**	**0**	**0**	**0**	**0**	**3**	**0**	**1**	**1**	**5**
Centre of Sports Activities										
Broadly defined ISCED-F fields	code									
Technology, production and construction	07	1	0	0	0	0	0	0	0	1
Department total	**X**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**
CEITEC BUT										
Broadly defined ISCED-F fields	code									
Natural sciences, mathematics and statistics	05	0	0	0	0	0	0	2	2	4
Department total	**X**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**2**	**4**
Brno University of Technology										
Broadly defined ISCED-F fields	code									
Arts and humanities	02	3	0	0	0	3	0	1	2	9
Social sciences, journalism and information sciences	03	0	0	0	0	2	0	0	0	2
Business, administration and law	04	5	0	0	0	4	3	2	2	16
Natural sciences, mathematics and statistics	05	5	2	0	0	9	2	14	14	46
Information and communication technologies	06	5	0	0	0	6	0	9	9	29
Technology, production and construction	07	35	15	0	0	67	18	47	47	229
Services	10	1	0	0	0	1	0	0	0	2
University TOTAL	**X**	**54**	**17**	**0**	**0**	**92**	**23**	**73**	**74**	**333**

Tab. 2.2: Study programmes in a foreign language (numbers)

Brno University of Technology		Bachelor's studies		Master's studies		Follow-up Master's studies		Ph.D. studies		Total
		F	C/D	F	C/D	F	C/D	F	C/D	
Faculty of Civil Engineering										
Broadly defined ISCED-F fields	code									
Natural sciences, mathematics and statistics	05	0	0	0	0	0	0	1	1	2
Technology, production and construction	07	2	0	0	0	2	0	5	5	14
Faculty total	**X**	**2**	**0**	**0**	**0**	**2**	**0**	**6**	**6**	**16**
Faculty of Mechanical Engineering										
Broadly defined ISCED-F fields	code									
Natural sciences, mathematics and statistics	05	0	0	0	0	2	0	1	1	4
Technology, production and construction	07	1	0	0	0	3	0	6	6	16
Faculty total	**X**	**1**	**0**	**0**	**0**	**5**	**0**	**7**	**7**	**20**

Brno University of Technology		Bachelor's studies		Master's studies		Follow-up Master's studies		Ph.D. studies		Total
		F	C/D	F	C/D	F	C/D	F	C/D	
Faculty of Electrical Engineering and Communication Technologies										
Broadly defined ISCED-F fields	code									
Information and communication technologies	06	0	0	0	0	0	0	3	3	6
Technology, production and construction	07	1	0	0	0	10	0	6	6	23
Faculty total	**X**	**1**	**0**	**0**	**0**	**10**	**0**	**9**	**9**	**29**
Faculty of Architecture										
Broadly defined ISCED-F fields	code									
Technology, production and construction	07	0	0	0	0	2	0	0	0	2
Faculty total	**X**	**0**	**0**	**0**	**0**	**2**	**0**	**0**	**0**	**2**
Faculty of Chemistry										
Broadly defined ISCED-F fields	code									
Natural sciences, mathematics and statistics	05	0	0	0	0	0	0	3	3	6
Technology, production and construction	07	0	0	0	0	1	0	1	1	3
Faculty total	**X**	**0**	**0**	**0**	**0**	**1**	**0**	**4**	**4**	**9**
Faculty of Business and Management										
Broadly defined ISCED-F fields	code									
Social sciences, journalism and information sciences	03	0	0	0	0	1	0	0	0	1
Business, administration and law	04	1	0	0	0	1	0	1	1	4
Faculty total	**X**	**1**	**0**	**0**	**0**	**2**	**0**	**1**	**1**	**5**
Faculty of Fine Arts										
Broadly defined ISCED-F fields	code									
Arts and humanities	02	0	0	0	0	1	0	0	0	1
Faculty total	**X**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**1**
Faculty of Information Technology										
Broadly defined ISCED-F fields	code									
Information and communication technologies	06	1	0	0	0	2	0	2	2	7
Faculty total	**X**	**1**	**0**	**0**	**0**	**2**	**0**	**2**	**2**	**7**
CEITEC BUT										
Broadly defined ISCED-F fields	code									
Natural sciences, mathematics and statistics	05	0	0	0	0	0	0	1	1	2
Department total	**X**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**1**	**2**
Brno University of Technology										
Broadly defined ISCED-F fields	code									
Arts and humanities	02	0	0	0	0	1	0	0	0	1
Social sciences, journalism and information sciences	03	0	0	0	0	1	0	0	0	1
Business, administration and law	04	1	0	0	0	1	0	1	1	4
Natural sciences, mathematics and statistics	05	0	0	0	0	2	0	6	6	14
Information and communication technologies	06	1	0	0	0	2	0	5	5	13
Technology, production and construction	07	4	0	0	0	18	0	18	18	58
University TOTAL	**X**	**6**	**0**	**0**	**0**	**25**	**0**	**30**	**30**	**91**

Tab. 2.3: Joint/Double/Multiple Degree study programmes implemented with a university abroad

Brno University of Technology	Faculty of Mechanical Engineering
Name of the programme 1	**Production Technology**
Partner organizations	Technische Universität Chemnitz (Germany)
Affiliated organizations	None
Kind of programme (Joint/Double/Multiple Degree)	Double Degree
Type of programme (bachelor, follow-up master, master, doctoral)	Bachelor
Number of active studies as of December 31	3

Name of the programme 2	**Industrial Engineering**
Partner organizations	Art et Métiers ParisTech (Cluny, France)
Affiliated organizations	None
Kind of programme (Joint/Double/Multiple Degree)	Double Degree
Type of programme (bachelor, follow-up master, master, doctoral)	Follow-up master
Number of active studies as of December 31	0

Name of the programme 3	**Production Systems**
Partner organizations	Technische Universität Chemnitz (Germany)
Affiliated organizations	None
Kind of programme (Joint/Double/Multiple Degree)	Double Degree
Type of programme (bachelor, follow-up master, master, doctoral)	Follow-up master
Number of active studies as of December 31	1

Name of the programme 4	**Applied and Interdisciplinary Mathematics**
Partner organizations	University of L'Aquila, Italy
Affiliated organizations	None
Kind of programme (Joint/Double/Multiple Degree)	Double Degree
Type of programme (bachelor, follow-up master, master, doctoral)	Follow-up master
Number of active studies as of December 31	5

	Faculty of Electrical Engineering and Communication Technologies
Name of the programme 1	**Telecommunications**
Partner organizations	Technische Universitat Wien
Affiliated organizations	
Kind of programme (Joint/Double/Multiple Degree)	Joint Degree
Type of programme (bachelor, follow-up master, master, doctoral)	Follow-up master
Number of active studies as of December 31	2

Name of the programme 2	**Communications and Networking (Double-Degree)**
Partner organizations	Universita Tampere, Finland
Affiliated organizations	
Kind of programme (Joint/Double/Multiple Degree)	Double Degree
Type of programme (bachelor, follow-up master, master, doctoral)	Follow-up master
Number of active studies as of December 31	9

Name of the programme 3	**Microelectronics (Double-Degree)**
Partner organizations	Northern Illinois University
Affiliated organizations	
Kind of programme (Joint/Double/Multiple Degree)	Double Degree
Type of programme (bachelor, follow-up master, master, doctoral)	Follow-up master
Number of active studies as of December 31	0

Name of the programme 4	**Bioengineering (Double-Degree)**
Partner organizations	The University of Applied Sciences, Technikum Wien
Affiliated organizations	
Kind of programme (Joint/Double/Multiple Degree)	Double Degree
Type of programme (bachelor, follow-up master, master, doctoral)	Follow-up master
Number of active studies as of December 31	8

Name of the programme 5	**Electronics and Information Technologies (Double-Degree)**
Partner organizations	TU Tampere
Affiliated organizations	
Kind of programme (Joint/Double/Multiple Degree)	Double Degree
Type of programme (bachelor, follow-up master, master, doctoral)	Doctoral
Number of active studies as of December 31	10

	Faculty of Chemistry
Name of the programme 1	**Environmental Sciences and Engineering**
Partner organizations	University Koblenz-Landau (Germany)
Affiliated organizations	
Kind of programme (Joint/Double/Multiple Degree)	Double Degree
Type of programme (bachelor, follow-up master, master, doctoral)	Follow-up master
Number of active studies as of December 31	7

Name of the programme 2	**Biophysical Chemistry**
Partner organizations	University of Huelva, Spain
Affiliated organizations	
Kind of programme (Joint/Double/Multiple Degree)	Double Degree
Type of programme (bachelor, follow-up master, master, doctoral)	Doctoral
Number of active studies as of December 31	0

	Faculty of Business and Management
Name of the programme 1	**European Business and Finance**
Partner organizations	Nottingham Trent University (GB), Karol Adamiecky University of Economics in Katowice (PL)
Affiliated organizations	
Kind of programme (Joint/Double/Multiple Degree)	Joint Degree
Type of programme (bachelor, follow-up master, master, doctoral)	Follow-up master
Number of active studies as of December 31	0

	Faculty of Information Technology
Name of the programme 1	
Partner organizations	Lappeenranta–Lahti University of Technology LUT, Finland
Affiliated organizations	
Kind of programme (Joint/Double/Multiple Degree)	Double Degree
Type of programme (bachelor, follow-up master, master, doctoral)	Follow-up master
Number of active studies as of December 31	0

	CEITEC BUT
Name of the programme 1	**Advanced Materials and Nanosciences**
Partner organizations	Université Grenoble Alpes
Affiliated organizations	None
Kind of programme (Joint/Double/Multiple Degree)	Double degree
Type of programme (bachelor, follow-up master, master, doctoral)	Doctoral
Number of active studies as of December 31	1

Name of the programme 2	
Partner organizations	University of Bari Aldo Moro
Affiliated organizations	None
Kind of programme (Joint/Double/Multiple Degree)	Double degree
Type of programme (bachelor, follow-up master, master, doctoral)	Doctoral
Number of active studies as of December 31	0

Summary information on tab. 2.3

Brno University of Technology	Bachelor's studies	Master's studies	Follow-up Master's studies	Ph.D. studies	Total
Number of study programmes	1	0	9	4	14
Number of active studies in these programmes	3	0	32	11	46

Tab. 2.4: Accredited study programmes carried out jointly with another university or with a public research institution based in the Czech Republic

Brno University of Technology	Faculty of Mechanical Engineering
Name of the programme 1	**Engineering Mechanics**
Broadly defined ISCED-F field	0715
Partner university/institution	Institute of Physics of Materials AS CR
Type of programme (bachelor, follow-up master, master, doctoral)	Doctoral
Number of active studies as of December 31	19

Name of the programme 2	**Material Sciences**
Broadly defined ISCED-F field	0719
Partner university/institution	Institute of Physics of Materials AS CR
Type of programme (bachelor, follow-up master, master, doctoral)	Doctoral
Number of active studies as of December 31	3

Name of the programme 3	Physical Engineering and Nanotechnology
Broadly defined ISCED-F field	0533
Partner university/institution	Institute of Instrumentation AS CR
Type of programme (bachelor, follow-up master, master, doctoral)	Doctoral
Number of active studies as of December 31	7

Name of the programme 4	Materials Sciences
Broadly defined ISCED-F field	0719
Partner university/institution	Institute of Physics of Materials AS CR
Type of programme (bachelor, follow-up master, master, doctoral)	Doctoral
Number of active studies as of December 31	0

Name of the programme 5	Applied Mechanics
Broadly defined ISCED-F field	0715
Partner university/institution	Institute of Physics of Materials AS CR
Type of programme (bachelor, follow-up master, master, doctoral)	Doctoral
Number of active studies as of December 31	0

Name of the programme 6	Physical Engineering and Nanotechnology
Broadly defined ISCED-F field	0533
Partner university/institution	Institute of Instrumentation AS CR
Type of programme (bachelor, follow-up master, master, doctoral)	Doctoral
Number of active studies as of December 31	0

Faculty of Electrical Engineering and Communication Technologies

Name of the programme 1	Biomedical Engineering and Bioinformatics
Broadly defined ISCED-F field	688
Partner university/institution	Faculty of Medicine MU
Type of programme (bachelor, follow-up master, master, doctoral)	Bachelor
Number of active studies as of December 31	235

Name of the programme 2	Audio Engineering
Broadly defined ISCED-F field	714
Partner university/institution	JAMU Faculty of Music
Type of programme (bachelor, follow-up master, master, doctoral)	Bachelor
Number of active studies as of December 31	189

Name of the programme 3	Audio Engineering
Broadly defined ISCED-F field	714
Partner university/institution	JAMU Faculty of Music
Type of programme (bachelor, follow-up master, master, doctoral)	Follow-up master
Number of active studies as of December 31	56

	CEITEC BUT
Name of the programme 1	**Advanced Materials and Nanosciences**
Broadly defined ISCED-F field	0719-Engineering and Mechanical Engineering (Nanotechnology)
Partner university/institution	Institute of Physics of Materials AS CR
Type of programme (bachelor, follow-up master, master, doctoral)	Doctoral
Number of active studies as of December 31	143

Summary information on tab. 2.4

Brno University of Technology	Bachelor's studies	Master's studies	Follow-up Master's studies	Ph.D. studies	Total
Number of study programmes	2	0	1	7	10
Number of active studies in these programmes	424	0	56	172	652

Tab. 2.5 Accredited study programmes carried out together with a higher vocational school

BUT does not have such study programmes.

Tab. 2.6: Lifelong learning courses (LL) at the university (number of courses)

Brno University of Technology		Profession-oriented courses			Interest courses			U3V	Total
Broadly defined ISCED-F fields	code	up to 15 h	from 16 to 100 h	more than 100 h	up to 15 h	from 16 to 100 h	more than 100 h		
Programmes and qualifications – general education	00	0	0	1	0	0	0	0	1
Education and upbringing	01	1	9	8	0	0	0	0	18
Arts and humanities	02	0	0	0	0	0	0	19	19
Social sciences, journalism and information sciences	03	0	0	17	0	0	0	12	29
Business, administration and law	04	0	2	2	0	0	0	4	8
Natural sciences, mathematics and statistics	05	0	0	0	4	3	1	4	12
Information and communication technologies	06	0	2	0	0	0	0	13	15
Technology, production and construction	07	17	23	15	0	0	0	16	71
Agriculture, forestry, fishing and veterinary medicine	08	0	0	0	0	0	0	0	0
Health and social care, care for favourable living conditions	09	0	0	0	0	0	0	4	4
Services	10	0	0	0	0	0	0	0	0
TOTAL	**X**	**18**	**36**	**43**	**4**	**3**	**1**	**72**	**177**

Tab. 2.7: Lifelong learning courses (LL) at the university (number of participants)

Brno University of Technology		Profession-oriented courses			Interest courses			U3V	Total	Of which number of participants who were admitted to accredited study programmes according to § 60 of the Act on Universities
Broadly defined ISCED-F fields	code	up to 15 h	from 16 to 100 h	more than 100 h	up to 15 h	from 16 to 100 h	more than 100 h			
Programmes and qualifications – general education	00	0	0	13	0	0	0	0	13	13
Education and upbringing	01	2	249	77	0	0	0	0	328	0
Arts and humanities	02	0	0	0	0	0	0	870	870	0
Social sciences, journalism and information sciences	03	0	0	196	0	0	0	147	343	0
Business, administration and law	04	0	28	19	0	0	0	106	153	0
Natural sciences, mathematics and statistics	05	0	0	0	23	88	1	50	162	39
Information and communication technologies	06	0	2	0	0	0	0	126	128	0
Technology, production and construction	07	789	903	117	0	0	0	616	2,425	0
Agriculture, forestry, fishing and veterinary medicine	08	0	0	0	0	0	0	0	0	0
Health and social care, care for favourable living conditions	09	0	0	0	0	0	0	147	147	0
Services	10	0	0	0	0	0	0	0	0	0
TOTAL	**X**	**791**	**1,182**	**422**	**23**	**88**	**1**	**2,062**	**4,569**	**52**

Tab. 2.8: Lifelong learning courses (LL) at the university (number of participants) – microcredentials

Brno University of Technology	code	Number of courses			Total	Number of participants			Total
Broadly defined ISCED-F fields		Profession-oriented	Inte-rest	U3V		Profession-oriented	Inte-rest	U3V	
Natural sciences, mathematics and statistics	05		8		8		112		112
TOTAL	**X**		**8**		**8**		**112**		**112**

Tab. 3.1: Students in accredited study programmes (number of studies)

Brno University of Technology		Bachelor's studies		Master's studies		Follow-up Master's studies		Ph.D. studies		Total
Broadly defined ISCED-F fields	**code**	**F**	**C/D**	**F**	**C/D**	**F**	**C/D**	**F**	**C/D**	
Faculty of Civil Engineering										
Natural sciences, mathematics and statistics	05	100	0	0	0	22	0	2	0	124
Technology, production and construction	07	2,137	101	0	0	788	44	130	138	3,338
Faculty total	**X**	**2,237**	**101**	**0**	**0**	**810**	**44**	**132**	**138**	**3,462**
Of which number of women at FCE	X	903	37	0	0	343	15	36	55	1,389
Of which number of foreigners at FCE	X	525	16	0	0	165	12	20	16	754
Faculty of Mechanical Engineering										
Arts and humanities	02	71	0	0	0	24	0	0	0	95
Natural sciences, mathematics and statistics	05	65	0	0	0	51	0	3	0	119
Technology, production and construction	07	1,961	57	0	0	908	80	230	72	3,308
Services	10	49	0	0	0	0	0	0	0	49
Faculty total	**X**	**2,146**	**57**	**0**	**0**	**983**	**80**	**233**	**72**	**3,571**
Of which number of women at FME	X	195	5	0	0	128	9	40	6	383
Of which number of foreigners at FME	X	368	2	0	0	181	8	43	9	611
Faculty of Electrical Engineering and Communication Technologies										
Arts and humanities	02	68	0	0	0	0	0	0	0	68
Information and communication technologies	06	430	0	0	0	165	0	38	21	654
Technology, production and construction	07	1,460	66	0	0	587	64	140	96	2,413
Faculty total	**X**	**1,958**	**66**	**0**	**0**	**752**	**64**	**178**	**117**	**3,135**
Of which number of women at FEEC	X	229	5	0	0	109	4	32	18	397
Of which number of foreigners at FEEC	X	543	9	0	0	208	19	47	18	844
Faculty of Architecture										
Technology, production and construction	07	362	0	0	0	136	0	38	11	547
Faculty total	**X**	**362**	**0**	**0**	**0**	**136**	**0**	**38**	**11**	**547**
Of which number of women at FA	X	226	0	0	0	85	0	19	3	333
Of which number of foreigners at FA	X	99	0	0	0	52	0	5	1	157
Faculty of Chemistry										
Natural sciences, mathematics and statistics	05	334	15	0	0	183	16	75	5	628
Technology, production and construction	07	314	28	0	0	72	10	47	10	481
Faculty total	**X**	**648**	**43**	**0**	**0**	**255**	**26**	**122**	**15**	**1,109**
Of which number of women at FCH	X	404	30	0	0	174	20	66	7	701
Of which number of foreigners at FCH	X	186	7	0	0	62	5	28	3	291
Faculty of Business and Management										
Social sciences, journalism and information sciences	03	0	0	0	0	130	0	0	0	130
Business, administration and law	04	1,430	0	0	0	498	160	31	22	2,141
Information and communication technologies	06	0	0	0	0	1	0	0	0	1
Faculty total	**X**	**1,430**	**0**	**0**	**0**	**629**	**160**	**31**	**22**	**2,272**
Of which number of women at FBM	X	621	0	0	0	292	83	14	8	1,018
Of which number of foreigners at FBM	X	341	0	0	0	134	30	5	4	514

Brno University of Technology		Bachelor's studies		Master's studies		Follow-up Master's studies		Ph.D. studies		Total
Broadly defined ISCED-F fields	**code**	**F**	**C/D**	**F**	**C/D**	**F**	**C/D**	**F**	**C/D**	
Faculty of Fine Arts										
Arts and humanities	02	216	0	0	0	96	0	49	5	366
Faculty total	**X**	**216**	**0**	**0**	**0**	**96**	**0**	**49**	**5**	**366**
Of which number of women at FFA	X	144	0	0	0	65	0	23	4	236
Of which number of foreigners at FFA	X	49	0	0	0	19	0	11	2	81
Faculty of Information Technology										
Information and communication technologies	06	2,057	0	0	0	501	0	79	63	2,700
Faculty total	**X**	**2,057**	**0**	**0**	**0**	**501**	**0**	**79**	**63**	**2,700**
Of which number of women at FIT	X	237	0	0	0	41	0	6	8	292
Of which number of foreigners at FIT	X	897	0	0	0	205	0	31	25	1,158
Institute of Forensic Engineering										
Technology, production and construction	07	0	0	0	0	83	0	14	17	114
Services	10	0	0	0	0	30	0	0	0	30
Department total	**X**	**0**	**0**	**0**	**0**	**113**	**0**	**14**	**17**	**144**
Of which number of women at IFE	X	0	0	0	0	51	0	3	8	62
Of which number of foreigners at IFE	X	0	0	0	0	13	0	0	1	14
Centre of Sports Activities										
Technology, production and construction	07	52	0	0	0	0	0	0	0	52
Department total	**X**	**52**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**52**
Of which number of women at CESA	X	15	0	0	0	0	0	0	0	15
Of which number of foreigners at CESA	X	12	0	0	0	0	0	0	0	12
CEITEC BUT										
Natural sciences, mathematics and statistics	05	0	0	0	0	0	0	134	13	147
Department total	**X**	**0**	**0**	**0**	**0**	**0**	**0**	**134**	**13**	**147**
Of which number of women at CEITEC BUT	X	0	0	0	0	0	0	58	3	61
Of which number of foreigners at CEITEC BUT	X	0	0	0	0	0	0	76	5	81
Brno University of Technology										
Arts and humanities	02	355	0	0	0	120	0	49	5	529
Social sciences, journalism and information sciences	03	0	0	0	0	130	0	0	0	130
Business, administration and law	04	1,430	0	0	0	498	160	31	22	2,141
Natural sciences, mathematics and statistics	05	499	15	0	0	256	16	214	18	1,018
Information and communication technologies	06	2,487	0	0	0	667	0	117	84	3,355
Technology, production and construction	07	6,286	252	0	0	2,574	198	599	344	10,253
Services	10	49	0	0	0	30	0	0	0	79
University TOTAL	**X**	**11,106**	**267**	**0**	**0**	**4,275**	**374**	**1,010**	**473**	**17,505**
Of which number of women total	X	2,974	77	0	0	1,288	131	297	120	4,887
Of which number of foreigners total	X	3,020	34	0	0	1,039	74	266	84	4,517

Tab. 3.2: Self-paying students (number of studies)

Brno University of Technology		Bachelor's studies		Master's studies		Follow-up Master's studies		Ph.D. studies		Total
Broadly defined ISCED-F fields	**code**	**F**	**C/D**	**F**	**C/D**	**F**	**C/D**	**F**	**C/D**	
Faculty of Civil Engineering										
Technology, production and construction	07	3	0	0	0	5	0	0	5	13
Faculty total	**X**	**3**	**0**	**0**	**0**	**5**	**0**	**0**	**5**	**13**
Faculty of Mechanical Engineering										
Technology, production and construction	07	18	0	0	0	10	0	2	0	30
Faculty total	**X**	**18**	**0**	**0**	**0**	**10**	**0**	**2**	**0**	**30**
Faculty of Electrical Engineering and Communication Technologies										
Information and communication technologies	06	0	0	0	0	0	0	10	2	12
Technology, production and construction	07	12	0	0	0	35	0	1	3	51
Faculty total	**X**	**12**	**0**	**0**	**0**	**35**	**0**	**11**	**5**	**63**
Faculty of Architecture										
Technology, production and construction	07	0	0	0	0	6	0	0	0	6
Faculty total	**X**	**0**	**0**	**0**	**0**	**6**	**0**	**0**	**0**	**6**
Faculty of Chemistry										
Technology, production and construction	07	0	0	0	0	7	0	0	1	8
Faculty total	**X**	**0**	**0**	**0**	**0**	**7**	**0**	**0**	**1**	**8**
Faculty of Business and Management										
Business, administration and law	04	57	0	0	0	24	0	1	1	83
Faculty total	**X**	**57**	**0**	**0**	**0**	**24**	**0**	**1**	**1**	**83**
Faculty of Fine Arts										
Arts and humanities	02	0	0	0	0	2	0	0	0	2
Faculty total	**X**	**0**	**0**	**0**	**0**	**2**	**0**	**0**	**0**	**2**
Faculty of Information Technology										
Information and communication technologies	06	0	0	0	0	7	0	2	0	9
Faculty total	**X**	**0**	**0**	**0**	**0**	**7**	**0**	**2**	**0**	**9**
Brno University of Technology										
Arts and humanities	02	0	0	0	0	2	0	0	0	2
Business, administration and law	04	57	0	0	0	24	0	1	1	83
Information and communication technologies	06	0	0	0	0	7	0	12	2	21
Technology, production and construction	07	33	0	0	0	63	0	3	9	108
University TOTAL	**X**	**90**	**0**	**0**	**0**	**96**	**0**	**16**	**12**	**214**

Tab. 3.3: Study failure in the 1st year of study (in %)

Brno University of Technology	Bachelor's studies			Master's studies			Follow-up Master's studies			Ph.D. studies			Total
	F	C/D	Total	F	C/D	Total	F	C/D	Total	F	C/D	Total	
Centre of Sports Activities	45.45		45.45										45.45
Faculty of Architecture	19.17		19.17				9.09		9.09	18.18		18.18	15.74
Faculty of Electrical Engineering and Communication Technologies	42.72	59.57	43.96				16.34	35.71	18.48	10.53	15.38	11.76	35.54
Faculty of Chemistry	42.69	66.67	45.42				4.23	57.14	9.03	16.67	66.67	22.58	31.59
Faculty of Information Technology	38.08		38.08				19.62		19.62	4.17	18.18	9.09	33.78
Faculty of Business and Management	42.98		42.98				22.61	32.00	26.06	18.18	60.00	33.33	35.73
Faculty of Civil Engineering	41.88	56.96	43.42				7.85	60.00	12.12	20.93	20.00	22.00	33.17
Faculty of Mechanical Engineering	44.85	63.64	45.95				6.68	26.92	8.74	18.64	16.67	19.40	33.16
Faculty of Fine Arts	9.52		9.52				9.76		9.76	0.00		0.00	8.62
CEITEC BUT										8.33	25.00	10.71	10.71
Institute of Forensic Engineering							48.78		48.78	66.67	50.00	75.00	50.00
BUT TOTAL	**41.19**	**60.49**	**42.18**				**14.07**	**37.04**	**16.67**	**14.90**	**25.00**	**17.55**	**33.27**

Tab. 3.4: Scholarships to students according to the purpose of the scholarship (numbers of natural persons)

Brno University of Technology Purose of the scholarship	Number of students	The average amount of the scholarship (CZK)
for excellent study results according to § 91 par. 2 let. a)	1,326	9,647
for excellent scientific, research, development, artistic or other creative results according to § 91 par. 2 let. b)	696	12,192
for research, development and innovation activities pursuant to a special legal regulation, § 91 par. 2 let. c)	931	44,614
in the case of a difficult social situation of the student according to § 91 par. 2 let. d)	9	3,278
in the case of a difficult social situation of the student according to § 91 par. 3	38	28,776
in cases worthy of special consideration according to § 91 par. 2 let. e)	14,747	6,942
of which accommodation scholarship	13,726	5,112
to support study abroad according to § 91 par. 4 let. a)	713	53,259
to support study in the Czech Republic according to § 91 par. 4 let. b)	38	307,589
students of doctoral study programmes according to § 91 par. 4 let. c)	1,162	101,190
other scholarships	39	0
TOTAL	**15,455**	**21,582**

Tab. 4.1: Graduates of accredited study programmes (number of completed studies)

Brno University of Technology		Bachelor's studies		Master's studies		Follow-up Master's studies		Ph.D. studies		Total
Broadly defined ISCED-F fields	**code**	**F**	**C/D**	**F**	**C/D**	**F**	**C/D**	**F**	**C/D**	
Faculty of Civil Engineering										
Natural sciences, mathematics and statistics	05	0	0	0	0	11	0	0	0	11
Technology, production and construction	07	370	12	0	0	356	16	2	31	787
Faculty total	**X**	**370**	**12**	**0**	**0**	**367**	**16**	**2**	**31**	**798**
Of which number of women at FCE	X	168	6	0	0	156	10	0	8	348
Of which number of foreigners at FCE	X	52	2	0	0	55	4	0	4	117
Faculty of Mechanical Engineering										
Arts and humanities	02	7	0	0	0	0	0	0	0	7
Natural sciences, mathematics and statistics	05	19	0	0	0	5	0	0	0	24
Technology, production and construction	07	367	11	0	0	421	46	10	27	882
Faculty total	**X**	**393**	**11**	**0**	**0**	**426**	**46**	**10**	**27**	**913**
Of which number of women at FME	X	43	1	0	0	80	7	1	4	136
Of which number of foreigners at FME	X	69	1	0	0	71	3	3	3	150
Faculty of Electrical Engineering and Communication Technologies										
Arts and humanities	02	21	0	0	0	0	0	0	0	21
Information and communication technologies	06	72	0	0	0	44	0	0	5	121
Technology, production and construction	07	271	6	0	0	211	15	2	24	529
Faculty total	**X**	**364**	**6**	**0**	**0**	**255**	**15**	**2**	**29**	**671**
Of which number of women at FEEC	X	40	0	0	0	31	3	0	5	79
Of which number of foreigners at FEEC	X	92	1	0	0	46	4	1	2	146
Faculty of Architecture										
Technology, production and construction	07	56	0	0	0	62	0	2	1	121
Faculty total	**X**	**56**	**0**	**0**	**0**	**62**	**0**	**2**	**1**	**121**
Of which number of women at FA	X	34	0	0	0	35	0	2	0	71
Of which number of foreigners at FA	X	20	0	0	0	16	0	0	0	36
Faculty of Chemistry										
Natural sciences, mathematics and statistics	05	0	0	0	0	40	0	2	1	43
Technology, production and construction	07	104	6	0	0	94	11	12	2	229
Faculty total	**X**	**104**	**6**	**0**	**0**	**134**	**11**	**14**	**3**	**272**
Of which number of women at FCH	X	67	2	0	0	94	8	9	2	182
Of which number of foreigners at FCH	X	22	1	0	0	34	2	2	0	61
Faculty of Business and Management										
Social sciences, journalism and information sciences	03	0	0	0	0	85	0	0	0	85
Business, administration and law	04	374	0	0	0	180	51	0	3	608
Information and communication technologies	06	11	0	0	0	7	0	0	0	18
Faculty total	**X**	**385**	**0**	**0**	**0**	**272**	**51**	**0**	**3**	**711**
Of which number of women at FBM	X	182	0	0	0	122	27	0	0	331
Of which number of foreigners at FBM	X	77	0	0	0	51	2	0	0	130

Brno University of Technology		Bachelor's studies		Master's studies		Follow-up Master's studies		Ph.D. studies		Total
Broadly defined ISCED-F fields	**code**	**F**	**C/D**	**F**	**C/D**	**F**	**C/D**	**F**	**C/D**	
Faculty of Fine Arts										
Arts and humanities	02	39	0	0	0	32	0	1	5	77
Faculty total	**X**	**39**	**0**	**0**	**0**	**32**	**0**	**1**	**5**	**77**
Of which number of women at FFA	X	29	0	0	0	18	0	0	4	51
Of which number of foreigners at FFA	X	6	0	0	0	3	0	0	2	11
Faculty of Information Technology										
Information and communication technologies	06	289	0	0	0	119	0	0	15	423
Faculty total	**X**	**289**	**0**	**0**	**0**	**119**	**0**	**0**	**15**	**423**
Of which number of women at FIT	X	19	0	0	0	6	0	0	5	30
Of which number of foreigners at FIT	X	114	0	0	0	42	0	0	4	160
Institute of Forensic Engineering										
Technology, production and construction	07	0	0	0	0	40	0	0	4	44
Services	10	0	0	0	0	9	0	0	0	9
Department total	**X**	**0**	**0**	**0**	**0**	**49**	**0**	**0**	**4**	**53**
Of which number of women at IFE	X	0	0	0	0	15	0	0	1	16
Of which number of foreigners at IFE	X	0	0	0	0	4	0	0	0	4
Centre of Sports Activities										
Technology, production and construction	07	14	0	0	0	0	0	0	0	14
Department total	**X**	**14**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**14**
Of which number of women at CESA	X	3	0	0	0	0	0	0	0	3
Of which number of foreigners at CESA	X	4	0	0	0	0	0	0	0	4
CEITEC BUT										
Natural sciences, mathematics and statistics	05	0	0	0	0	0	0	10	3	13
Department total	**X**	**0**	**0**	**0**	**0**	**0**	**0**	**10**	**3**	**13**
Of which number of women at CEITEC BUT	X	0	0	0	0	0	0	4	1	5
Of which number of foreigners at CEITEC BUT	X	0	0	0	0	0	0	3	2	5
Brno University of Technology										
Arts and humanities	02	67	0	0	0	32	0	1	5	105
Social sciences, journalism and information sciences	03	0	0	0	0	85	0	0	0	85
Business, administration and law	04	374	0	0	0	180	51	0	3	608
Natural sciences, mathematics and statistics	05	19	0	0	0	56	0	12	4	91
Information and communication technologies	06	372	0	0	0	170	0	0	20	562
Technology, production and construction	07	1,182	35	0	0	1,184	88	28	89	2,606
Services	10	0	0	0	0	9	0	0	0	9
University TOTAL	**X**	**2,014**	**35**	**0**	**0**	**1,716**	**139**	**41**	**121**	**4,066**
Of which number of women total	X	585	9	0	0	557	55	16	30	1,252
Of which number of foreigners total	X	456	5	0	0	322	15	9	17	824

Tab. 5.1: Interest in studying at university

Brno University of Technology		Bachelor's studies				Master's studies				Follow-up Master's studies				Ph.D. studies			
Broadly defined ISCED-F fields	code	Number of applicants (natural persons)	Number of applications	Number of admissions	Number of enrolments for the study	Number of applicants (natural persons)	Number of applications	Number of admissions	Number of enrolments for the study	Number of applicants (natural persons)	Number of applications	Number of admissions	Number of enrolments for the study	Number of applicants (natural persons)	Number of applications	Number of admissions	Number of enrolments for the study
Faculty of Civil Engineering																	
Natural sciences, mathematics and statistics	05	150	150	125	66	0	0	0	0	16	16	15	14	1	1	1	1
Technology, production and construction	07	1,734	1,749	1,402	874	0	0	0	0	520	520	439	366	66	67	45	41
Faculty total	**X**	**1,882**	**1,899**	**1,527**	**940**	**0**	**0**	**0**	**0**	**536**	**536**	**454**	**380**	**67**	**68**	**46**	**42**
Faculty of Mechanical Engineering																	
Arts and humanities	02	64	64	23	22	0	0	0	0	14	14	6	6	0	0	0	0
Natural sciences, mathematics and statistics	05	53	53	30	26	0	0	0	0	32	32	26	26	1	1	1	1
Technology, production and construction	07	1,675	1,675	1,010	841	0	0	0	0	741	744	509	390	67	67	56	55
Services	10	64	64	30	27	0	0	0	0	0	0	0	0	0	0	0	0
Faculty total	**X**	**1,855**	**1,856**	**1,093**	**916**	**0**	**0**	**0**	**0**	**787**	**790**	**541**	**422**	**68**	**68**	**57**	**56**
Faculty of Electrical Engineering and Communication Technologies																	
Information and communication technologies	06	426	426	232	198	0	0	0	0	103	103	69	69	14	14	10	7
Technology, production and construction	07	1,543	1,549	849	802	0	0	0	0	611	614	392	377	60	60	47	44
Faculty total	**X**	**1,969**	**1,975**	**1,081**	**1,000**	**0**	**0**	**0**	**0**	**714**	**717**	**461**	**446**	**74**	**74**	**57**	**51**
Faculty of Architecture																	
Technology, production and construction	07	430	430	183	130	0	0	0	0	102	102	83	71	10	10	6	6
Faculty total	**X**	**430**	**430**	**183**	**130**	**0**	**0**	**0**	**0**	**102**	**102**	**83**	**71**	**10**	**10**	**6**	**6**
Faculty of Chemistry																	
Natural sciences, mathematics and statistics	05	540	540	396	226	0	0	0	0	134	134	110	99	32	32	31	30
Technology, production and construction	07	457	457	339	204	0	0	0	0	67	67	37	34	11	11	11	11
Faculty total	**X**	**997**	**997**	**735**	**430**	**0**	**0**	**0**	**0**	**201**	**201**	**147**	**133**	**43**	**43**	**42**	**41**
Faculty of Business and Management																	
Social sciences, journalism and information sciences	03	0	0	0	0	0	0	0	0	143	143	65	65	0	0	0	0
Business, administration and law	04	1,738	1,738	587	587	0	0	0	0	706	706	358	339	21	21	17	14
Faculty total	**X**	**1,738**	**1,738**	**587**	**587**	**0**	**0**	**0**	**0**	**849**	**849**	**423**	**404**	**21**	**21**	**17**	**14**

Brno University of Technology		Bachelor's studies				Master's studies				Follow-up Master's studies				Ph.D. studies			
Broadly defined ISCED-F fields	code	Number of applicants (natural persons)	Number of applications	Number of admissions	Number of enrolments for the study	Number of applicants (natural persons)	Number of applications	Number of admissions	Number of enrolments for the study	Number of applicants (natural persons)	Number of applications	Number of admissions	Number of enrolments for the study	Number of applicants (natural persons)	Number of applications	Number of admissions	Number of enrolments for the study
Faculty of Fine Arts																	
Arts and humanities	02	643	643	76	71	0	0	0	0	83	86	51	49	21	21	11	11
Faculty total	**X**	**643**	**643**	**76**	**71**	**0**	**0**	**0**	**0**	**83**	**86**	**51**	**49**	**21**	**21**	**11**	**11**
Faculty of Information Technology																	
Information and communication technologies	06	2,090	2,090	863	842	0	0	0	0	411	411	333	234	43	43	21	21
Faculty total	**X**	**2,090**	**2,090**	**863**	**842**	**0**	**0**	**0**	**0**	**411**	**411**	**333**	**234**	**43**	**43**	**21**	**21**
Institute of Forensic Engineering																	
Technology, production and construction	07	0	0	0	0	0	0	0	0	84	84	66	56	11	11	8	8
Services	10	0	0	0	0	0	0	0	0	22	22	18	15	0	0	0	0
Department total	**X**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**106**	**106**	**84**	**71**	**11**	**11**	**8**	**8**
Centre of Sports Activities																	
Technology, production and construction	07	78	78	27	23	0	0	0	0	0	0	0	0	0	0	0	0
Department total	**X**	**78**	**78**	**27**	**23**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
CEITEC BUT																	
Natural sciences, mathematics and statistics	05	0	0	0	0	0	0	0	0	0	0	0	0	68	68	36	26
Department total	**X**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**68**	**68**	**36**	**26**
Brno University of Technology																	
Arts and humanities	02	707	707	99	93	0	0	0	0	97	100	57	55	21	21	11	11
Social sciences, journalism and information sciences	03	0	0	0	0	0	0	0	0	143	143	65	65	0	0	0	0
Business, administration and law	04	1,738	1,738	587	587	0	0	0	0	706	706	358	339	21	21	17	14
Natural sciences, mathematics and statistics	05	743	743	551	318	0	0	0	0	182	182	151	139	102	102	69	58
Information and communication technologies	06	2,516	2,516	1,095	1,040	0	0	0	0	514	514	402	303	57	57	31	28
Technology, production and construction	07	5,917	5,938	3,810	2,874	0	0	0	0	2,125	2,131	1,526	1,294	225	226	173	165
Agriculture, forestry, fishing and veterinary medicine	08	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Health and social care, care for favourable living conditions	09	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Services	10	64	64	30	27	0	0	0	0	22	22	18	15	0	0	0	0
University TOTAL	**X**	**11,630**	**11,706**	**6,172**	**4,939**	**0**	**0**	**0**	**0**	**3,789**	**3,798**	**2,577**	**2,210**	**426**	**427**	**301**	**276**

Tab. 6.1: Academic and research staff and other staff, total (average numbers)

Brno University of Technology	Academic staff								Scientific and professional staff			Other employees	Total employees
	Total academic staff	Professors	Associate Professors	Assistant Professors	Assistants	Lecturers	Scientific, research and development workers involved in pedagogical activities	Extraordinary professors	Postdoctoral researchers ("postdoc")	Researchers not falling into other categories	Other scientific, research and development workers		
Faculty of Civil Engineering	298.592	34.063	73.571	154.534	35.141	1.283			4.890	26.538		183.988	514.008
of which women	78.337	3.525	7.522	53.336	13.937	0.017			1.738	4.879		104.493	189.447
Faculty of Mechanical Engineering	325.035	35.311	81.698	157.362	41.672	2.394	6.598		14.129	71.862		175.153	586.179
of which women	33.659	0.237	3.200	19.421	8.801	1.000	1.000		2.745	7.215		95.395	139.014
Faculty of Electrical Engineering and Communication Technologies	213.866	28.916	70.022	102.164	11.513	1.251			10.125	108.661		93.570	426.222
of which women	39.801	1.649	10.824	19.277	7.152	0.899			2.987	15.183		55.741	113.712
Faculty of Architecture	40.193	4.500	9.082	15.778	10.833					1.096		31.544	72.833
of which women	10.589	2.100	1.191	3.601	3.697					0.496		21.613	32.698
Faculty of Chemistry	66.411	13.608	16.288	30.938	0.167	0.524	4.886		4.623	28.222		68.277	167.533
of which women	23.367	2.086	6.614	11.257	0.000	0.524	2.886		1.201	15.325		50.344	90.237
Faculty of Business and Management	67.128	9.115	19.115	29.777	5.999	2.519	0.603		0.250	1.364		38.001	106.743
of which women	26.501	2.833	6.178	11.638	4.199	1.302	0.351			0.714		27.830	55.045
Faculty of Fine Arts	45.327	3.184	12.445	10.016	19.682					1.654		22.425	69.406
of which women	15.272	0.000	2.000	5.016	8.256					1.274		15.351	31.897
Faculty of Information Technology	60.181	8.750	19.265	29.510	2.100	0.143	0.413		7.113	57.290		89.529	214.113
of which women	2.592	0.000	1.000	1.592	0.000	0.000	0.000		0.768	5.589		56.665	65.614
Institute of Forensic Engineering	14.085	1.300	3.547	8.207	1.031					1.251		12.890	28.226
of which women	2.390	0.000	0.000	2.390	0.000							10.235	12.625
Centre of Sports Activities	16.415		2.100	7.099	7.216							15.352	31.767
of which women	8.115		1.000	3.899	3.216							10.851	18.966
CEITEC BUT	35.354		0.251	1.616			33.487		29.430	149.775		63.684	278.243
of which women	4.317		0.251	0.699			3.367		5.634	40.196		40.131	90.278
Other workplaces total	1.000			1.000								493.563	494.563
Number of women in other workplaces	0.000											315.144	315.144
TOTAL	1,183.587	138.747	307.384	548.001	135.354	8.114	45.987	0.000	70.560	447.713	0.000	1,287.976	2,989.836
Total of women	244.940	12.430	39.780	132.126	49.258	3.742	7.604	0.000	15.073	90.871	0.000	803.793	1,154.677

Tab. 6.2: The age structure of academic, scientific and other staff (numbers of natural persons)

Brno University of Technology	Academic staff														Scientific and professional staff						Other employees		Total	Of which women
	Professors		Associate professors		Assistant professors		Assistants		Lecturers		Scientific, research and development staff involved in pedagogical activities		Extra-ordinary professors		Postdoctoral researchers ("postdoc")		Researchers not falling into other categories		Other researchers, researchers and developers					
	total	women	total	women	total	women	total	women	total	women	total	women	total	women	total	women	total	women	total	women	total	women		
Up to 29 years					8	1	57	9	2	2	2	1			26	8	263	56			136	50	494	127
30–39 years			30	1	253	47	64	17	7	4	28	6			86	19	233	44			236	116	937	254
40–49 years	26	1	160	17	282	69	41	21	3	2	17	1					111	25			447	311	1,087	447
50–59 years	30	3	76	13	47	23	18	7	2		2						29	7			354	260	558	313
60–69 years	68	7	47	8	44	20	8	7	1		1						13	1			201	110	383	153
More than 70 years	52	6	41	3	15	5	1				1						14	0			37	21	161	35
TOTAL	**176**	**17**	**354**	**42**	**649**	**165**	**189**	**61**	**15**	**8**	**51**	**8**	**0**	**0**	**112**	**27**	**663**	**133**	**0**	**0**	**1,411**	**868**	**3,620**	**1,329**

Tab. 6.3: Numbers of academic and scientific staff according to the range of work load and the highest achieved qualification (numbers of natural persons according to the range of work load)

Brno University of Technology	Academic staff								Scientific staff		Total	Of whom women
Faculty of Civil Engineering												
Range of work load	**prof.**		**assoc. prof.**		**DrSc., CSc., Dr., Ph.D., Th.D.**		**others**					
	total	**women**	**total**	**women**	**total**	**women**	**total**	**women**	**total**	**women**		
Up to 0,3	1		5	1	19	10	11	4	8	5	44	20
0,31–0,5	8	1	5		25	13	7	5	15	2	60	21
0,51–0,7	5	1	9	2	19	9	6	3	12	1	51	16
0,71–1	29	3	68	8	127	26	13	7	13	3	250	47
More than 1											0	0
TOTAL	**43**	**5**	**87**	**11**	**190**	**58**	**37**	**19**	**48**	**11**	**405**	**104**
Faculty of Mechanical Engineering												
Range of work load	**prof.**		**assoc. prof.**		**DrSc., CSc., Dr., Ph.D., Th.D.**		**others**					
	total	**women**	**total**	**women**	**total**	**women**	**total**	**women**	**total**	**women**		
Up to 0,3	10	1	18	1	20	7	9	1	10	2	67	12
0,31–0,5	3		6		21	3	16	6	28	3	74	12
0,51–0,7	5		13		12	3	16	3	18	2	64	8
0,71–1	29		70	3	140	14	22	5	38	2	299	24
More than 1											0	0
TOTAL	**47**	**1**	**107**	**4**	**193**	**27**	**63**	**15**	**94**	**9**	**504**	**56**
Faculty of Electrical Engineering and Communication Technologies												
Range of work load	**prof.**		**assoc. prof.**		**DrSc., CSc., Dr., Ph.D., Th.D.**		**others**					
	total	**women**	**total**	**women**	**total**	**women**	**total**	**women**	**total**	**women**		
Up to 0,3	4		7		12	3	4	2	30	4	57	9
0,31–0,5	5		4		9	1	3	2	35	5	56	8
0,51–0,7	5	1	7	1	17	2	3	2	24	4	56	10
0,71–1	22	1	64	10	84	16	12	4	68	9	250	40
More than 1							1		5		6	0
TOTAL	**36**	**2**	**82**	**11**	**122**	**22**	**23**	**10**	**162**	**22**	**425**	**67**
Faculty of Architecture												
Range of work load	**prof.**		**assoc. prof.**		**DrSc., CSc., Dr., Ph.D., Th.D.**		**others**					
	total	**women**	**total**	**women**	**total**	**women**	**total**	**women**	**total**	**women**		
Up to 0,3			3	1	2	1	3				8	2
0,31–0,5	2	1	2		3	1	7	2			14	4
0,51–0,7	1	1			2		1		1		5	1
0,71–1	3	1	8	1	12	4	4	2			27	8
More than 1											0	0
TOTAL	**6**	**3**	**13**	**2**	**19**	**6**	**15**	**4**	**1**	**0**	**54**	**15**

Brno University of Technology	Academic staff								Scientific staff		Total	Of whom women
Faculty of Chemistry												
Range of work load	prof.		assoc. prof.		DrSc., CSc., Dr., Ph.D., Th.D.		others					
	total	women	total	women	total	women	total	women	total	women		
Up to 0,3	2				4	2	2		19	10	27	12
0,31–0,5	4		2	1	4	2			10	4	20	7
0,51–0,7	2				2	2			6	2	10	4
0,71–1	12	3	10	6	34	13			13	7	69	29
More than 1			1						1		2	0
TOTAL	**20**	**3**	**13**	**7**	**44**	**19**	**2**	**0**	**49**	**23**	**128**	**52**
Faculty of Business and Management												
Range of work load	prof.		assoc. prof.		DrSc., CSc., Dr., Ph.D., Th.D.		others					
	total	women	total	women	total	women	total	women	total	women		
Up to 0,3	2				7	4	1	1	1		11	5
0,31–0,5	3				5	3	3	1			11	4
0,51–0,7	1		2				2	1			5	1
0,71–1	7	3	18	6	27	10	3	2			55	21
More than 1											0	0
TOTAL	**13**	**3**	**20**	**6**	**39**	**17**	**9**	**5**	**1**	**0**	**82**	**31**
Faculty of Fine Arts												
Range of work load	prof.		assoc. prof.		DrSc., CSc., Dr., Ph.D., Th.D.		others					
	total	women	total	women	total	women	total	women	total	women		
Up to 0,3			1		1	1	4	2	7	3	13	6
0,31–0,5			1		3	1			1	1	5	2
0,51–0,7	2				3	3	1				6	3
0,71–1	2		13	2	7	2	12	5			34	9
More than 1											0	0
TOTAL	**4**	**0**	**15**	**2**	**14**	**7**	**17**	**7**	**8**	**4**	**58**	**20**
Faculty of Information Technology												
Range of work load	prof.		assoc. prof.		DrSc., CSc., Dr., Ph.D., Th.D.		others					
	total	women	total	women	total	women	total	women	total	women		
Up to 0,3					3	1	1		46	4	50	5
0,31–0,5	1		4		7	1			25	2	37	3
0,51–0,7	1		6		5				13	1	25	1
0,71–1	8		15	1	25	1	2		36	4	86	6
More than 1											0	0
TOTAL	**10**	**0**	**25**	**1**	**40**	**3**	**3**	**0**	**120**	**11**	**198**	**15**

Brno University of Technology	Academic staff								Scientific staff		Total	Of whom women
Institute of Forensic Engineering												
Range of work load	prof.		assoc. prof.		DrSc., CSc., Dr., Ph.D., Th.D.		others					
	total	women	total	women	total	women	total	women	total	women		
Up to 0,3	1		2		3	2					6	2
0,31–0,5					1				2		3	0
0,51–0,7					2	1					2	1
0,71–1	1		3		5	1	1				10	1
More than 1											0	0
TOTAL	**2**	**0**	**5**	**0**	**11**	**4**	**1**	**0**	**2**	**0**	**21**	**4**
Centre of Sports Activities												
Range of work load	prof.		assoc. prof.		DrSc., CSc., Dr., Ph.D., Th.D.		others					
	total	women	total	women	total	women	total	women	total	women		
Up to 0,3			1		2	1					3	1
0,31–0,5											0	0
0,51–0,7					1	1					1	1
0,71–1			2	1	7	4	6	2			15	7
More than 1											0	0
TOTAL	**0**	**0**	**3**	**1**	**10**	**6**	**6**	**2**	**0**	**0**	**19**	**9**
CEITEC BUT												
Range of work load	prof.		assoc. prof.		DrSc., CSc., Dr., Ph.D., Th.D.		others					
	total	women	total	women	total	women	total	women	total	women		
Up to 0,3					3	1			68	29	71	30
0,31–0,5			2	1	2				70	23	74	24
0,51–0,7	1				4	1			41	10	46	11
0,71–1					29	5			95	18	124	23
More than 1									2		2	0
TOTAL	**1**	**0**	**2**	**1**	**38**	**7**	**0**	**0**	**276**	**80**	**317**	**88**
Other workplaces total												
Range of work load	prof.		assoc. prof.		DrSc., CSc., Dr., Ph.D., Th.D.		others					
	total	women	total	women	total	women	total	women	total	women		
Up to 0,3											0	0
0,31–0,5											0	0
0,51–0,7											0	0
0,71–1					1						1	0
More than 1											0	0
TOTAL	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**1**	**0**

Brno University of Technology	Academic staff								Scientific staff		Total	Of whom women
Brno University of Technology												
Range of work load	**prof.**		**assoc. prof.**		**DrSc., CSc., Dr., Ph.D., Th.D.**		**others**					
	total	**women**	**total**	**women**	**total**	**women**	**total**	**women**	**total**	**women**		
Up to 0,3	20	1	37	3	76	33	35	10	189	57	357	104
0,31–0,5	26	2	26	2	80	25	36	16	186	40	354	85
0,51–0,7	23	3	37	3	67	22	29	9	115	20	271	57
0,71–1	113	11	271	38	498	96	75	27	263	43	1 220	215
More than 1	0	0	1	0	0	0	1	0	8	0	10	0
TOTAL	**182**	**17**	**372**	**46**	**721**	**176**	**176**	**62**	**761**	**160**	**2 212**	**461**
University TOTAL	**182**	**17**	**372**	**46**	**721**	**176**	**176**	**62**	**761**	**160**	**2 212**	**461**

Tab. 6.4: Leading personnel (natural persons)

Brno University of Technology	Rector/Dean	Vice-Rector/Vice-Dean	Academic Senate	Scientific/Artistic/ Academic Council	Quaestor/Secretary	Board of Directors	Director of an institute, university agricultural or forest farm	Head of department/ institute/research facility	Leading personnel total
Rectorate	1	5	27	48	1	15			**97**
of which women	0	1	8	7	1	2			**19**
Faculty of Civil Engineering	1	5	40	44	1			22	**113**
of which women	0	0	10	5	0			2	**17**
Faculty of Mechanical Engineering	1	4	36	37	1			15	**94**
of which women	0	0	5	0	0			1	**6**
Faculty of Electrical Engineering and Communication Technologies	1	4	19	31	1			14	**70**
of which women	0	1	4	3	0			1	**9**
Faculty of Architecture	1	4	13	21	1			8	**48**
of which women	0	1	6	6	0			1	**14**
Faculty of Chemistry	1	4	15	35	1			5	**61**
of which women	0	2	5	6	0			1	**14**
Faculty of Business and Management	1	4	21	28	1			4	**59**
of which women	0	1	9	8	0			1	**19**
Faculty of Fine Arts	1	5	11	21	1			22	**61**
of which women	0	3	4	8	1			8	**24**
Faculty of Information Technology	1	5	13	30	1			5	**55**
of which women	0	0	0	3	0			0	**3**
IFE, CEITEC BUT and CESA				45	2		3	21	**71**
of which women				6	0		1	2	**9**

Brno University of Technology	Rector/Dean	Vice-Rector/Vice-Dean	Academic Senate	Scientific/Artistic/ Academic Council	Quaestor/Secretary	Board of Directors	Director of an institute, university agricultural or forest farm	Head of department/ institute/research facility	Leading personnel total
Other workplaces total				0	0		5	0	**5**
of which women				0	0		2	0	**2**
Faculties, university institutes and other workplaces, total	2	9	76	81	2		8	58	**207**
of which women	0	0	15	5	0		3	5	**23**
University TOTAL	**3**	**14**	**103**	**129**	**3**	**15**	**8**	**58**	**304**
of which women	0	1	23	12	1	2	3	5	**42**

Tab. 6.5: Academic and research staff with foreign citizenship (recalculated average numbers)

Brno University of Technology	Academic staff						Scientific and professional staff			Other employees
	Professors	Associate professors	Assistant professors	Assistants	Lectureres	Scientific. research and development workers involved in pedagogical activities	Postdoctoral students ("postdoc")	Researchers not falling into other categories	Other scientific. research and development workers	
Faculty of Civil Engineering	0.499	1.000	3.924	1.479	0.000	0.000	0.735	4.510	0.000	2.100
of which: Germany										
Poland								0.251		
Austria								0.200		
Slovakia	0.499	1	3.086	1.117			0.735	3.999		2.100
Other EU states										
Other states outside EU			0.838	0.362				0.060		
Women from the total number (regardless of citizenship)			0.086	0.817			0.193	0.411		1.600
Faculty of Mechanical Engineering	0.000	0.151	6.267	4.813	0.000	0.000	4.887	13.162	0.000	7.021
of which: Germany										
Poland								0.693		
Austria		0.151								
Slovakia			5.267	4.146			1.902	3.923		5.711
Other EU states								1		0.022
Other states outside EU			1	0.667			2.985	7.546		1.288
Women from the total number (regardless of citizenship)			1	1.1			1.896	2.513		2.072

Brno University of Technology	Academic staff						Scientific and professional staff			Other employees
	Professors	Associate professors	Assistant professors	Assistants	Lectureres	Scientific. research and development workers involved in pedagogical activities	Postdoctoral students ("postdoc")	Researchers not falling into other categories	Other scientific. research and development workers	
Faculty of Electrical Engineering and Communication Technologies	0.000	2.004	6.766	0.167	0.000	0.000	5.038	15.311	0.000	0.101
of which: Germany								1		
Poland								0.690		
Austria										
Slovakia		2.004	3.666				2.436	7.420		
Other EU states			0.1				0.489	1.113		
Other states outside EU			3	0.167			2.113	5.088		0.101
Women from the total number (regardless of citizenship)		1	1.933				2.189	3.756		
Faculty of Architecture	0.900	0.191	0.000	2.755	0.000	0.000	0.000	0.496	0.000	0.000
of which: Germany										
Poland				1.251						
Austria								0.496		
Slovakia	0.5	0.191								
Other EU states	0.4			1.253						
Other states outside EU				0.251						
Women from the total number (regardless of citizenship)	0.5	0.191		0.5				0.496		
Faculty of Chemistry	0.086	1.930	1.000	0.000	0.000	1.000	1.986	2.820	0.000	1.906
of which: Germany										
Poland										
Austria										
Slovakia	0.086	1.93	1				1.986	1.62		1.906
Other EU states								1		
Other states outside EU						1		0.2		
Women from the total number (regardless of citizenship)	0.086	0.914	1				0.423	2.081		1.477
Faculty of Business and Management	0.250	0.834	1.209	1.100	0.167	0.351	0.000	0.000	0.000	1.008
of which: Germany										
Poland										
Austria										
Slovakia	0.250		1.209							0.008
Other EU states										
Other states outside EU		0.834		1.1	0.167	0.351				1
Women from the total number (regardless of citizenship)			1.209	0.8	0.167	0.351				1

Brno University of Technology	Academic staff						Scientific and professional staff			Other employees
	Professors	Associate professors	Assistant professors	Assistants	Lectureres	Scientific. research and development workers involved in pedagogical activities	Postdoctoral students ("postdoc")	Researchers not falling into other categories	Other scientific. research and development workers	
Faculty of Fine Arts	0.000	1.000	2.916	2.864	0.000	0.000	0.000	0.691	0.000	0.685
of which: Germany										
Poland										
Austria										
Slovakia		1	1.416	1.864				0.691		0.685
Other EU states			1	1						
Other states outside EU			0.500							
Women from the total number (regardless of citizenship)			1.916	2.114				0.691		
Faculty of Information Technology	0.000	1.587	1.349	0.000	0.000	0.413	0.598	12.292	0.000	5.255
of which: Germany										
Poland										1
Austria										
Slovakia		1	0.349					5.805		3.088
Other EU states			1				0.598	0.153		
Other states outside EU		0.587				0.413		6.334		1.167
Women from the total number (regardless of citizenship)							0.116	4.327		0.138
Institute of Forensic Engineering	0.000	0.000	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
of which: Germany										
Poland										
Austria										
Slovakia			1							
Other EU states										
Other states outside EU										
Women from the total number (regardless of citizenship)										
Centre of Sports Activities	0.000	0.000	1.000	0.000	0.000	0.000	0.000	0.000	0.000	1.102
of which: Germany										
Poland										
Austria										
Slovakia			1							1.102
Other EU states										
Other states outside EU										
Women from the total number (regardless of citizenship)										0.085

Brno University of Technology	Academic staff						Scientific and professional staff			Other employees
	Professors	Associate professors	Assistant professors	Assistants	Lectureres	Scientific. research and development workers involved in pedagogical activities	Postdoctoral students ("postdoc")	Researchers not falling into other categories	Other scientific. research and development workers	
CEITEC BUT	0.000	0.000	0.317	0.000	0.000	16.185	17.659	27.179	0.000	4.015
of which: Germany						0.496		0.479		
Poland						2.000				
Austria						1.500				
Slovakia			0.300			3.913	1.213	11.117		2.915
Other EU states						1.200	5.213	2.258		
Other states outside EU			0.017			7.076	11.233	13.325		1.100
Women from the total number (regardless of citizenship)			0.300			3.000	4.618	11.368		2.000
Other workplaces total	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	9.864
of which: Germany										
Poland										
Austria										
Slovakia										7.835
Other EU states										
Other states outside EU										2.029
Women from the total number (regardless of citizenship)										3.693
University TOTAL	**1.735**	**8.697**	**25.748**	**13.178**	**0.167**	**17.949**	**30.903**	**76.461**	**0.000**	**33.057**
of which: Germany	0.000	0.000	0.000	0.000	0.000	0.496	0.000	1.479	0.000	0.000
Poland	0.000	0.000	0.000	1.251	0.000	2.000	0.000	1.634	0.000	1.000
Austria	0.000	0.151	0.000	0.000	0.000	1.500	0.000	0.696	0.000	0.000
Slovakia	1.335	7.125	18.293	7.127	0.000	3.913	8.272	34.575	0.000	25.350
Other EU states	0.400	0.000	2.100	2.253	0.000	1.200	6.300	5.524	0.000	0.022
Other states outside EU	0.000	1.421	5.355	2.547	0.167	8.840	16.331	32.553	0.000	6.685
Women from the total number (regardless of citizenship)	0.586	2.105	7.444	5.331	0.167	3.351	9.435	25.643	0.000	12.065

Tab. 6.6: Newly appointed associate professors and professors (numbers)

Brno University of Technology	Number			Age average of newly appointed
	At this university		Own university employees appointed at other universities	
	total	of which regular employees of the university		
Faculty of Civil Engineering				
Professors appointed in 2022	4	4	1	51.67
of which women	1	1		61.2
Associate professors appointed in 2022	4	4		54.63
of which women	2	2		50.36
Faculty of Mechanical Engineering				
Professors appointed in 2022	3	3		46.00
of which women	0	0		
Associate professors appointed in 2022	4	4		41.03
of which women	0	0		
Faculty of Electrical Engineering and Communication Technologies				
Professors appointed in 2022	2	0		38.51
of which women	0	0		
Associate professors appointed in 2022	5	4		37.82
of which women	1	1		41.26
Faculty of Architecture				
Professors appointed in 2022	0	0		
of which women	0	0		
Associate professors appointed in 2022	1	1		51.30
of which women	0	0		
Faculty of Chemistry				
Professors appointed in 2022	2	2	1	46.88
of which women	1	1		48.48
Associate professors appointed in 2022	2	1		44.28
of which women	0	0		
Faculty of Business and Management				
Professors appointed in 2022	0	0		
of which women	0	0		
Associate professors appointed in 2022	3	2		38.5
of which women	1	1		43.22
Faculty of Fine Arts				
Professors appointed in 2022	0	0		
of which women	0	0		
Associate professors appointed in 2022	1	1		41.49
of which women	0	0		
Faculty of Information Technology				
Professors appointed in 2022	0	0		
of which women	0	0		
Associate professors appointed in 2022	2	2		44.51
of which women	0	0		

Brno University of Technology	Number			Age average of newly appointed
	At this university		Own university employees appointed at other universities	
	total	of which regular employees of the university		
Institute of Forensic Engineering				
Professors appointed in 2022	0	0		
of which women	0	0		
Associate professors appointed in 2022	0	0		
of which women	0	0		
TOTAL professors	**11**	**9**	**2**	**47.18**
of which women	2	2		54.43
TOTAL associate professors	**22**	**19**		**43.53**
of which women	4	4		46.30

Tab. 7.1: Involvement of the university in international cooperation programmes (regardless of the source of funding)

Brno University of Technology	H2022/7th EC Framework Programmes		Others	Total
	total	of which Marie-Curie Actions		
Number of projects	50	12	94	**144**
Number of students sent	3	0	202	**205**
Number of students admitted	2	0	254	**256**
Number of academic and scientific staff sent	40	0	155	**195**
Number of admitted academic and scientific staff	17	9	119	**136**
Subsidies in thous. CZK	515,961	29,627	647,243	**1,163,204**

Tab. 7.2: Mobility of students, academicians and other staff with regards country (regardless of the source of funding)

Brno University of Technology	Number of students sent			Number of students admitted		Number of academic scientific staff sent	Number of admitted academic staff	Number of other workers sent	Number of other workers admitted	Total for the states
Country	total	of which graduate internships	of which on-line	of which on-line	total					
Albania	1	0	0	0	1	0	0	0	0	2
Algeria	0	0	0	0	0	0	1	0	0	1
Argentina	0	0	0	0	0	0	2	0	0	2
Belgium	13	0	0	0	5	0	1	0	0	19
Bosnia and Herzegovina	0	0	0	0	4	1	5	0	0	10
Brazil	0	0	0	0	10	0	0	0	0	10
Bulgaria	2	0	0	0	2	3	3	0	0	10
Montenegro	0	0	0	0	3	1	0	0	0	4
Czechia	0	0	0	0	2	0	3	0	0	5
People's Republic of China	1	0	0	0	0	0	3	0	0	4
Republic of China (Taiwan)	5	0	0	0	7	0	1	0	0	13
Denmark	21	0	0	0	3	0	0	0	0	24
Estonia	14	1	0	0	8	0	0	0	0	22
Finland	26	0	0	0	9	2	1	0	0	38
France	22	1	0	0	156	3	3	1	0	185
Ghana	0	0	0	0	0	0	1	0	0	1
Georgia	1	0	0	0	0	0	1	0	0	2
Croatia	5	0	0	0	7	10	0	1	0	23
India	0	0	0	0	2	3	14	0	0	19
Indonesia	2	0	0	0	0	0	0	0	0	2
Iraq	0	0	0	0	0	0	1	0	0	1
Iran	0	0	0	0	1	0	1	0	0	2
Ireland	4	0	0	0	2	16	0	11	0	33
Iceland	9	2	0	0	0	4	0	0	0	13
Italy	15	1	0	0	29	30	10	3	0	87
Japan	1	0	0	0	1	0	1	0	0	3
Jordan	3	0	0	0	0	0	2	0	0	5
Canada	5	0	0	0	0	0	0	0	0	5
Republic of Korea	18	0	0	0	5	0	2	0	0	25
Cyprus	3	0	0	0	0	4	0	12	0	19
Lichtenstein	2	0	0	0	0	0	0	0	0	2
Lithuania	8	0	0	0	22	4	0	0	0	34
Latvia	2	0	0	0	2	1	1	0	0	6
Luxembourg	0	0	0	0	1	0	0	0	0	1
Hungary	1	0	0	0	0	4	2	0	0	7
Malta	6	1	0	0	4	14	1	11	0	36
Morocco	0	0	0	0	0	0	1	0	0	1
Nepal	1	0	0	0	0	0	0	0	0	1
The Netherlands	13	0	0	0	6	0	0	0	0	19

Brno University of Technology	Number of students sent			Number of students admitted		Number of academic scientific staff sent	Number of admitted academic staff	Number of other workers sent	Number of other workers admitted	Total for the states
Country	total	of which graduate internships	of which on-line	of which on-line	total					
Norway	21	1	0	0	0	2	0	0	0	23
Pakistan	0	0	0	0	1	0	3	0	0	4
Poland	8	0	0	0	11	25	12	0	0	56
Portugal	34	1	0	0	51	6	0	1	0	92
Austria	67	6	0	0	10	15	7	4	0	103
North Macedonia	1	0	0	0	2	2	0	0	0	5
Romania	4	0	0	0	11	2	1	1	0	19
Russia	0	0	0	0	0	0	1	0	0	1
Greece	12	0	0	0	18	5	1	0	0	36
Singapur	2	0	0	0	0	0	0	0	0	2
Slovakia	17	1	0	0	18	12	7	0	0	54
Slovenia	14	0	0	0	7	4	0	0	0	25
United Kingdom	18	1	0	0	2	19	2	6	0	47
United States of America	11	0	0	0	5	3	1	0	0	20
Mexico	1	0	0	0	4	0	0	0	0	5
Germany	46	2	0	0	13	9	3	1	0	72
Serbia	3	1	0	0	3	0	1	0	0	7
Izrael	1	0	0	0	2	0	0	0	0	3
United Arab Emirates	2	0	0	0	0	0	0	0	0	2
Spain	30	2	0	0	111	11	2	1	0	155
Sweeden	10	2	0	0	0	0	0	0	0	10
Switzerland	10	0	0	0	1	2	0	0	0	13
Thailand	1	0	0	0	0	1	0	0	0	2
Turkey	0	0	0	0	62	2	2	0	0	66
Ukraine	0	0	0	0	14	0	3	0	0	17
Vatican	0	0	0	0	0	1	0	0	0	1
Vietnam	0	0	0	0	0	0	1	0	0	1
TOTAL	**517**	**23**	**0**	**0**	**638**	**221**	**108**	**53**	**0**	**1,537**

Tab. 7.3: Mobility of graduates (numbers and shares of completed studies)

Brno University of Technology	Bachelor's studies		Master's studies		Follow-up Master's studies		Ph.D. studies		Total	
	proportion	number	proportion	number	proportion	number	proportion	number	proportion	number
Faculty of Civil Engineering										
Proportion [%] and number of graduates who went on a stay abroad for at least 14 days during their studies	4.5%	17	0.0%	0.0	6.8%	26	27.3%	9	6.5%	52
Proportion [%] and number of doctoral graduates with a length of stay abroad of at least 1 month (i.e. 30 days)							21.2%	7	21.2%	7
Faculty of Mechanical Engineering										
Proportion [%] and number of graduates who went on a stay abroad for at least 14 days during their studies	2.2%	9	0.0%	0.0	9.5%	45	13.5%	5	6.5%	59
Proportion [%] and number of doctoral graduates with a length of stay abroad of at least 1 month (i.e. 30 days)							13.5%	5	13.5%	5
Faculty of Electrical Engineering and Communication Technologies										
Proportion [%] and number of graduates who went on a stay abroad for at least 14 days during their studies	0.3%	1	0.0%	0.0	6.7%	18	16.1%	5	3.6%	24
Proportion [%] and number of doctoral graduates with a length of stay abroad of at least 1 month (i.e. 30 days)							16.1%	5	16.1%	5
Faculty of Architecture										
Proportion [%] and number of graduates who went on a stay abroad for at least 14 days during their studies	17.86%	10	0.0%	0.0	24.2%	15	66.7%	2	22.3%	27
Proportion [%] and number of doctoral graduates with a length of stay abroad of at least 1 month (i.e. 30 days)							66.7%	2	66.7%	2
Faculty of Chemistry										
Proportion [%] and number of graduates who went on a stay abroad for at least 14 days during their studies	1.8%	2	0.0%	0.0	10.3%	15	64.7%	11	10.3%	28
Proportion [%] and number of doctoral graduates with a length of stay abroad of at least 1 month (i.e. 30 days)							64.7%	11	64.7%	11
Faculty of Business and Management										
Proportion [%] and number of graduates who went on a stay abroad for at least 14 days during their studies	4.2%	16	0.0%	0.0	6.8%	22	66.7%	2	5.6%	40
Proportion [%] and number of doctoral graduates with a length of stay abroad of at least 1 month (i.e. 30 days)							66.7%	2	66.7%	2

Brno University of Technology	Bachelor's studies		Master's studies		Follow-up Master's studies		Ph.D. studies		Total	
	proportion	number	proportion	number	proportion	number	proportion	number	proportion	number
Faculty of Fine Arts										
Proportion [%] and number of graduates who went on a stay abroad for at least 14 days during their studies	20.5%	8	0.0%	0.0	34.4%	11	66.7%	4	29.9%	23
Proportion [%] and number of doctoral graduates with a length of stay abroad of at least 1 month (i.e. 30 days)							66.7%	4	66.7%	4
Faculty of Information Technology										
Proportion [%] and number of graduates who went on a stay abroad for at least 14 days during their studies	5.2%	15	0.0%	0.0	9.2%	11	53.3%	8	8.0%	34
Proportion [%] and number of doctoral graduates with a length of stay abroad of at least 1 month (i.e. 30 days)							26.7%	4	26.7%	4
Institute of Forensic Engineering										
Proportion [%] and number of graduates who went on a stay abroad for at least 14 days during their studies	0.0%	0	0.0%	0.0	0.0%	0	75.0%	3	5.7%	3
Proportion [%] and number of doctoral graduates with a length of stay abroad of at least 1 month (i.e. 30 days)							50.0%	2	50.0%	2
Centre of Sports Activities										
Proportion [%] and number of graduates who went on a stay abroad for at least 14 days during their studies	0.00%	0	0.0%	0.0	0.0%	0	0.0%	0	0.0%	0
Proportion [%] and number of doctoral graduates with a length of stay abroad of at least 1 month (i.e. 30 days)							0.0%	0	0.0%	0
CEITEC BUT										
Proportion [%] and number of graduates who went on a stay abroad for at least 14 days during their studies	0.0%	0	0.0%	0.0	0.0%	0	38.5%	5	38.5%	5
Proportion [%] and number of doctoral graduates with a length of stay abroad of at least 1 month (i.e. 30 days)							38.5%	5	38.5%	5
Brno University of Technology										
Proportion [%] and number of graduates who went on a stay abroad for at least 14 days during their studies	3.8%	78	0.0%	0.0	8.8%	163	33.3%	54	7.3%	295
Proportion [%] and number of doctoral graduates with a length of stay abroad of at least 1 month (i.e. 30 days)							29.0%	47	29.0%	47
Brno University of Technology	**3.8%**	**78**	**0.0%**	**0.0**	**8.8%**	**163**	**29.0%**	**54**	**7.3%**	**295**

Tab. 8.1: Conferences (co-)organized by the university (numbers)

Brno University of Technology	With the number of participants greater than 60		International conference	
	physical	virtual	physical	virtual
Faculty of Civil Engineering	10	1	3	
Faculty of Mechanical Engineering	7	1	9	2
Faculty of Electrical Engineering and Communication Technologies	6	0	7	0
Faculty of Architecture	3	2	4	3
Faculty of Chemistry			3	
Faculty of Business and Management	0	0	0	0
Faculty of Fine Arts	1		1	
Faculty of Information Technology	1			
Institute of Forensic Engineering	1			
Centre of Sports Activities	0	0	0	0
CEITEC BUT	2	0	3	0
TOTAL	**31**	**4**	**30**	**5**

Tab. 8.2: Experts from the application sphere participating in teaching and practice in accredited study programmes (numbers)

Brno University of Technology	Persons having an employment relationship with the university or part of the university			Persons not having an employment relationship with the university or part of the university		
	Number of persons participating in teaching	Number of persons involved in the supervision of the final thesis	Number of persons involved in providing internships	Number of persons participating in teaching	Number of persons involved in the supervision of the final thesis	Number of persons involved in providing internships
Faculty of Civil Engineering	54	5	1	25	3	136
of which women	20	2		3		
Faculty of Mechanical Engineering				19	108	34
of which women				2	7	2
Faculty of Electrical Engineering and Communication Technologies	12	5	5	25	30	35
of which women	0	0	0	0	0	0
Faculty of Architecture	20	18	4	18	0	92
of which women	3	3	1	8	0	6
Faculty of Chemistry	22	7	35			
of which women	6	0	10			
Faculty of Business and Management	16	5	3	7		196
of which women	7	2				106

Brno University of Technology	Persons having an employment relationship with the university or part of the university			Persons not having an employment relationship with the university or part of the university		
	Number of persons participating in teaching	Number of persons involved in the supervision of the final thesis	Number of persons involved in providing internships	Number of persons participating in teaching	Number of persons involved in the supervision of the final thesis	Number of persons involved in providing internships
Faculty of Fine Arts	13	8		3	1	
of which women	4	3		1		
Faculty of Information Technology				21	74	0
of which women				1	6	0
Institute of Forensic Engineering	14	1	0	0	0	0
of which women	2	0	0	0	0	0
Centre of Sports Activities	5	0	0	1	1	23
of which women	2	0	0	0	0	2
CEITEC BUT	2	2	0	5	5	0
of which women	0	0	0	1	1	0
TOTAL	**158**	**51**	**48**	**124**	**222**	**516**
of which women	44	10	11	16	14	116

Tab. 8.3: Fields of study/programmes which, in their content, have compulsory completion of professional practice for a period of at least 1 month (numbers)

Brno University of Technology	Number of fields of study/ programmes	Number of active studies					
		Bachelor's studies		Master's studies		Follow-up Master's studies	
		Academic profile	Professio-nal profile	Academic profile	Professio-nal profile	Academic profile	Professio-nal profile
Faculty of Civil Engineering	4	218	238			20	105
Faculty of Mechanical Engineering	1		49				
Faculty of Architecture	3		282				129
Faculty of Chemistry	1		62				
Faculty of Business and Management	5	884	555				
Centre of Sports Activities	1		52				
TOTAL	**15**	**1,102**	**1,238**			**20**	**234**

Tab. 8.4: Transfer of knowledge and research results into practice

Brno University of Technology	In the Czech Republic	Abroad	Total number	Total revenue
Number of new spin-offs/start-ups				
Patent applications filed	11	13	**24**	
Granted patents	6	2	**8**	
Registered utility models	22	1	**23**	
License agreements valid as of December 31	38	45	**83**	
Newly concluded license agreements	5	8	**13**	**732,773 CZK**
Contract research, consultations and consultancy services			**871**	**164,969,212 CZK**
Paid training courses for employees of application spheres			**58**	**3,809,605 CZK**

Summary information on tab. 8.4

	Total number	Total revenue	Average revenue per 1 order
Newly concluded license agreements, contract research, consultations, consultancy services and paid training courses for employees of the application sphere	942	169,511,590 CZK	179,949 CZK

Tab. 12.1: Accommodation, meals

Brno University of Technology	Number
Total bed capacity of university dormitories	6,324
Number of beds in rented facilities	0
Number of submitted applications/reservations for accommodation as of 31/12/2022	6,767
Number of positively processed applications/reservations for accommodation as of 31/12/2022	5,383
Number of bed days in 2022	1,576,362
Total number of terminated contracts (pandemics)	0
Total number of modified contracts (pandemics)	0
Total number of contracts with exception (pandemics)	0
Number of main meals issued to students in 2022	648,571
Number of main meals issued in 2022 to university staff	74,761
Number of main meals served in 2022 to other diners	42,061

Tab. 12.2: University libraries

Brno University of Technology	Number
Increase in library stock per year	5,371
of which increase in physical units	5,235
of which an increase in e-books in permanent purchase	136
Total library collection	216,924
of which physical units	214,567
of which e-books in permanent purchase	2,357
Number of subscribed periodical titles:	
physically	301
electronically (estimation)	100
in both forms	10

14 Conclusions

Dear readers,

If you have read this far in the Annual Report, i.e. to the conclusions, or if you have come here after reading the introduction in the traditional way of reading large documents, then you can undoubtedly expect an announcement here about what comes next? Where are we going, what lies ahead and what do we expect as a university management in 2023 and beyond? This is what the conclusion of the Annual Report logically points to.

In terms of developments in the external environment, we can assume that the year 2023 will be marked by the expectation of the completion and implementation of the long-discussed amendment to Act No.111/1998 Coll. on Higher Education. This amendment is intended, among other things, to bring about a fundamental transformation not only in the approach to doctoral studies, but especially in the conditions of their financing. In the context of the economic situation and the government's austerity measures, the year 2023 will undoubtedly be accompanied by a continuation of the ongoing discussions on the financing of universities in the Czech Republic and the search for a consensus on its amount and shares within the budget chapter of MEYS. The discussion will cover not only wage ratios, costs, including energy costs, but also the economic situation at Czech universities in general. The question of the quality and role of higher education in terms of its international competitiveness will probably become a crucial issue. In order to fulfil the government's programme to promote the differentiation of universities, the Ministry of Education announced the preparation of criteria for evaluating the excellence of Czech universities in the Czech Republic. This trend emphasising

excellence is likely to be reflected in the differentiation of university funding, and so its reflection will also become an important motivating factor.

In the field of research, the Research, Development and Innovation Board is preparing an amendment to the research assessment methodology with an expected strengthening of the assessment of applied research results, which we are significantly promoting from the university management level. An amendment to Act No. 130/2002 Coll. on Support for Research, Development and Innovation is also being prepared. Significant initiatives will result from our university's membership of the international agreement on research assessment reform (ARRA) and membership of the CoARA (Coalition for Advancing Research Assessment) as well as from reflection on policies and concept documents of the European Union and the European University Association. Last but not least, the year 2023 will be accompanied by calls for and implementation of projects of operational programmes, especially the OP JAK or NPR (National Programme for Reconstruction) and programmes of other providers.

In the field of studies and education, the year 2023 will be marked by reflections and preparations for the implementation of the reform of doctoral studies at our university. We are planning to conduct the first phase of the evaluation of doctoral study programmes in order to be prepared for the apparently necessary changes in the approach to the provision of doctoral education. In the evaluation, we will focus on the effectiveness of the completion of doctoral studies and also make these studies more relevant to strategic areas of research. We will focus on developing the concept of doctoral schools and explore the opportunities of industrial doctorates. The issue of financing doctoral scholarships will be a major topic for us. In the area of accredited studies, we will continue to focus on promoting technical education and creating mechanisms to ensure quality applicants for technical studies. We also plan to focus more on finding the optimal structure of study programmes, both academic and professional, including ensuring their credit compatibility and permeability in an international context, in the spirit of ECTS. In 2023, we intend to devote significant efforts to the topic of microcredentials, particularly in the context of the development of university professional education programmes, including qualification studies of the Master type. We will devote substantial attention to the internationalisation of studies, not only by supporting student and employee mobility, but also by consolidating and developing the quality and effective offer of study programmes or courses delivered in English. The quality of education in general will receive increased attention in 2023. In particular, we will focus on updating the guidelines and quality standards in the field of study and also on profiling the evaluation role of the Internal Evaluation Board in accordance with the fulfilment of the conditions of institutional accreditation.

We are preparing an evaluation of research to assess its quality and strategic potential to contribute to increasing the excellence and competitiveness of the university. An International Scientific Academic Board (ISAB) will be established during 2023 and will be actively involved in the ongoing evaluation phase. We are working to strengthen

research quality and performance to prepare for the upcoming round of research organisation evaluation and scaling in 2025. In this context, we foresee a budgetary strengthening of the incentive component of the institutional support of the DKRVO and the promotion of excellence in research and development, including the announced establishment of the relevant development fund. We will be actively involved in the methodological setting of programmes and project calls at the level of individual providers. In the competition for Horizon Europe projects, we want to strengthen the motivation and support for winning prestigious ERC or ERC CZ and Teaming research projects. We will place emphasis on obtaining targeted support to strengthen the university's direction in strategic areas and to support the university's competitiveness in research, development and other creative activities. In 2023, we will also devote significant attention to continuing the technical implementation of the Open Science concept.

We consider it essential to continue liberalising and setting the environment for the development of knowledge transfer, including support for the establishment of spin-off and start-up companies. We will focus on increasing the efficiency of transfer and use of intellectual property and the results of creative activity in practice. Within the framework of the ContriBUTe concept, developed in cooperation with the Faculty of Business and Management, we want to lay the foundations and develop an effective entrepreneurial ecosystem at the university in the spirit of the concept of an entrepreneurial university in 2023. We expect to continue to shape mechanisms for collaboration with strategic industrial partners in the area of contract research and research in effective collaboration to engage faculties and institutes in larger industrial research projects. In this cooperation with industrial partners, we will also be setting up and verifying the potential of industrial doctorates. With these partners, we will also shape the optimal way of communication in reflection of their needs as employers seeking to attract potential employees from among our university's graduates and students. We also expect to look for ways to expand corporate internship opportunities for interested students, including creating opportunities for our students to gain practical training during their studies.

Strengthening internationalisation and building the university's international credibility will be an integral part of our efforts. In addition to supporting student and staff mobility, we will strive to develop inter-university cooperation in joint studies and research at the international level, both within our EULIST university alliance and within traditional university and faculty strategic partnerships. In addition to ERASMUS+, we will look for funding opportunities to replace the relatively reduced earmarked funding for mobility and exchange stay support due to the closure of operational programme projects. We are counting on a significant intensification of our relations and cooperation with the EUA (European University Association) and our active involvement in the European network of technical and research universities CESAER. Last but not least, in 2023, we will pay attention to international rankings and especially to the preparation of relevant data that we provide for the international evaluation.

In the area of human resources management, we will continue to emphasise the development of the organisation in the spirit of the HR Award standards and build an

organisational culture based on the principles of openness and transparency. In the context of fulfilling the goals of the Gender Equality Plan and the principles of the Code of Ethics, we will strive to systematically build a gender-correct and socially safe university environment. By negotiating with MEYS, we will systematically strive to ensure adequate and dignified salary evaluation of university employees and thus also of our university. By the end of 2023 we expect to complete the draft of the university's staffing strategy. As part of its preparation, we expect to discuss and reach a consensus on the university's HR policy, optimisation of the evaluation system, in particular the fine-tuning of the evaluation of academic staff (SHAP) and the start of preparations for its extension to the evaluation of non-academic staff, as well as the optimisation of the appraisal and remuneration system, the staff development system and the human resources care system. In internal policy, we will continue the trend of supporting interdisciplinary and interfaculty cooperation. We have established a network of subject coordinators in strategic areas of research and creative activity to provide professional links and support the development of collaboration between our faculties and institutes. Competitive and unique solutions will also be sought in deepening the interconnection and cooperation of technical and artistic disciplines at our university.

In the area of information technology and services, we will continue our path of developing effective information support in 2023. In addition to completing the ongoing convergence of the student information system and the transition to a unified information system, we will develop preparations for upgrading the economic and HR information systems and continue to digitalise the university environment. In particular, we will focus on further computerisation of the circulation and approval of documents. Along with completion of the reorganisation of the Centre for Computing and Information Services, we will complete the introduction of the IT project management system and establish a transparent and sustainable development of the university information system by, among other things, setting up a budget-based normative method of financing IT services. We will also continue to unify the image of the university organisational structure in information systems and consolidate databases to ensure the real-time availability of reliable and relevant data for decision-making support.

For our students, in addition to supporting traditional student events, we will continue to support their extracurricular creative activities, sports, as well as cultural and leisure activities. In 2023, we will focus, among other things, on active seeking of resources for the completion of laboratory and spatial facilities used for student creative activities such as Formula Student, ChickenWings, StrojLab, Pneumobil, etc. As is our tradition, we will provide specific support for the development of our students' entrepreneurial skills, e.g. within the framework of the next year of the "Let's Do Business!" competition. Last but not least, we will also strive to find an optimal solution for leisure gathering spaces for students on the campus of the university, Pod Palackého vrchem.

We are aware of the university's environmental responsibility. Sustainability and climate neutrality will remain a priority both internally, especially in investment and energy policy, and externally in the development of technical research and education. Aware of the DNSH (Do Not Significant Harm) concept, we will continue research and development and application of solutions using environmentally friendly and neutral technologies, including the development of related cooperation with partner universities in the Czech Republic and abroad, including within our university alliance EULIST. In the construction and investment area, in addition to the implementation of reconstructions and additions within the Property Reproduction Programme of the MEYS, we will upgrade the BMS (Building Management System) on our integrated premises and strengthen the energy management system in order to optimise the energy efficiency of the university. We will seek to expand the installation and generation of energy from renewable energy sources within the limits of our budget. We will continue to apply the concept of nZEB (Near Zero Energy Buildings) in construction.

We also have a number of recommendations from the international EUA evaluation, which we successfully passed in 2022. We intend to implement these recommendations gradually.

We are a leading research university with a great history and tradition of technical education, the fourth largest in the Czech Republic and the second largest full-scale technical university in the country. The year 2024 marks the 125th anniversary of our founding. With 25% of our students from other countries, we are an international university. We belong to the family of modern European universities that subscribe to the European Union's policies in the field of higher education and research and accept the challenges of building excellence as a condition for competitiveness. We have set ourselves many goals, which require a great deal of commitment, but I believe that together we will succeed in fulfilling the vision we are working towards, i.e. the vision of a successful, modern European research university proud of its technical profile and its achievements in education and research.

doc. Ing. Ladislav Janíček, Ph.D., MBA, LL.M.
Rector BUT

15 List of the abbreviations used

CEITEC	Central European Institute of Technology
CIS	Computer and Information Services Centre BUT
CTU	Czech Technical University in Prague
CZU	Czech University of Life Sciences
DFKI	Deutsches Forschungszentrum für Künstliche Intelligenz (German Research Centre for Artificial Intelligence)
FA	Faculty of Architecture BUT
FCE	Faculty of Civil Engineering BUT
FFA	Faculty of Fine Arts BUT
FEEC	Faculty of Electrical Engineering and Communication BUT
FCH	Faculty of Chemistry BUT
FIT	Faculty of Information Technology BUT
FBM	Faculty of Business and Management BUT
FME	Faculty of Mechanical Engineering BUT
GA CR	Czech Science Foundation (Grant Agency of the Czech Republic)
HR Award	Human Resources Award
IAESTE	International Association for the Exchange of Students for Technical Experience
LLI	Lifelong Learning Institute BUT
JCMM	South Moravian Centre for International Mobility
JIC	South Moravian Innovation Centre
CC	Career Centre BUT
MENDELU	Mendel University in Brno
MEP	International Evaluation Panel
MEYS	Ministry of Education, Youth and Sports
MIT	Ministry of Industry and Trade
MU	Masaryk University
MI	Ministry of the Interior of the Czech Republic
NAÚ	National Accreditation Bureau for Higher Education
OP RDE	Operational Programme Research, Development and Education
RVH	Internal Evaluation Board BUT
RVŠ	Council of Higher Education Institutions
RVVI	Research, Development and Innovation Board
SHAP	Academic Staff Evaluation System
SKAS	Student Chamber of the Academic Senate
SPA	Students` Professional Activities
TA CR	Technology Agency of the Czech Republic
TUL	Technical University of Liberec
IFE	Institute of Forensic Engineering BUT
R&D	Research and Development
VSB	Technical University of Ostrava
VŠE	Prague University of Economics and Business
WoS	Web of Science
UWB	University of West Bohemia in Pilsen
ZeMA	Zentrum für Mechatronik und Automatisierungstechnik gemeinnützige (German Research Centre for Mechatronics and Automation Technology)

BRNO UNIVERSITY OF TECHNOLOGY

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