ANNUAL REPORT

ON THE ACTIVITIES OF BRNO UNIVERSITY OF TECHNOLOGY FOR THE YEAR 2023

BRNO UNIVERSITY OF TECHNOLOGY

The Annual Report on the Activities of Brno University of Technology for the year 2023 is submitted in accordance with Act No. 111/1998 Coll., on Higher Education Institutions. It has been prepared in accordance with the framework outline of the activities of the university for the year 2023 issued by the Ministry of Education and Science. The document is divided into a text part and a table part, which has a fixed structure according to the framework outline. The introductory part, on the other hand, is entirely within the responsibility of the college according to the MoEYS guidelines and presents information beyond the required outline.

The Annual Report on Activities provides data and substantial results of all activities related to the activities of the BUT within the 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 Academic Senate of the BUT on 12 September 2024.

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VYSOKÉ UČENÍ
TECHNICKÉ
V BRNĚ


Tipsport

Table of Contents

1 Introduction

1.1 Rector's opening speech

Dear readers,

It is my honour to present to you the Brno University of Technology's Annual Report for 2023. This report is traditionally an opportunity to look back at the past year and recall the key events and achievements we have accomplished. I would like to present some of them, which I consider to be crucial for our university.

After years of profiling cooperation and building partnerships within the European University Alliance EULiST, we became a registered European university in 2023 together with nine other European, mainly technical universities. Territorially, this alliance covers ten European countries, has 20,000 employees and 200,000 students. We have traditional partnerships with some of these universities, such as the Technical University of Vienna, the Slovak University of Technology in Bratislava and the Lappenranta-Lahti University of Technology in Finland. With some of them we have developed active cooperation in the last two years – in particular with Liebniz Universität Hannover in Germany, the leading partner of our Alliance. (Note: from May 2024 we have elected our university to take over the leadership of the Alliance in the General Assembly.)

We have made significant progress in communicating with industry partners. We have resumed regular meetings with industrial partners who are employers of our graduates and students, partners in grant research projects and also commission contract research. At the end of the year, we established the BUT Industry Council both to promote knowledge transfer and the commercialisation of our intellectual property, as well as a discussion platform on the educational needs of industry and as an evaluation platform for the assessment of study programmes. We have held a number of meetings with chambers of commerce. Several meetings with the American Chamber of Commerce have led to the initiation and contracting of qualitatively new strategic partnerships, in addition to advancing mutual understanding of the educational needs of modern engineers and the needs of collaborative research settings.

We have made the promotion of technical education and STEM studies a central theme of our focus and communication. In October 2023, we organised a roundtable on technical education with the participation of the rectors of eight technical and science universities, representatives of hi-tech companies, industry and chambers of commerce at the highest level, and above all the Ministry of Education represented by three deputy ministers, as well as the South Moravian Region headed by its governor. With the participation of the Prime Minister of the Czech Republic, we moderated a discussion on the need for technical and science education and forms of possible support for interest in STEM studies. We consider the promotion and development of technical education as a key factor for ensuring the competitiveness of the Czech Republic as one of the most industrialised countries in the European Union and we intend to further develop and share this topic at the international level.

Above all, we have directed all our research efforts towards a path that will lead us to improve our university's A rating in the upcoming 2025 scaling exercise. At the Government Research, Development and Innovation Council, we are actively contributing to promoting the setting of an RDI assessment that is as transparent as possible and reasonably equitable in reflecting the nature of the outcomes at different types of research organisations, including technical universities. In April 2023, we hosted a national annual RCVI conference on Methodology 17+. We focused on improving the reporting of results as a prerequisite for their successful assessment under Methodology 17+ in Module M1. We provided our faculty and university institutes with the necessary incentives to focus their efforts on improving the structure of publication results in Module M2, with a focus on the production of publications assessed in quartiles Q1 and Q2 or decile D1. We have taken organisational and budgetary measures to encourage a focus on adequate production of results, including the financial volumes of dedicated grants for applied research, knowledge transfer and contract research entering the M3 assessment.

We have also put in place the necessary systemic adjustments at the level of strategic management and budgeting, for example in the allocation of DKRVO Institutional Support, which will be crucial to obtaining a quality rating in modules M4 and M5. We have started the process of research evaluation, which will take place in parallel with the evaluation of PhD studies this year. In November 2023, we launched the International Scientific Council as an advisory body to help us set up the evaluation process in a sound and pragmatic way and to oversee its transparency and objectivity, thanks to the experience of its members.

In order to concentrate and efficiently use disciplinary capacities, we have identified both strategic areas and areas of inter-faculty cooperation that represent the dominant and profiling areas of our scientific and professional activities. These are generally strategic areas with high competitive potential. We believe that this inter-faculty coordination will help to increase the University's visibility to external partners and make it easier for them to gain orientation and contacts in a given area of expertise across the University through the coordinator of these areas when seeking collaboration. At the same time, this will allow for the preparation and submission of strong, professionally comprehensive and capacity-assured project proposals, whether grant or contract research projects.

We have also obtained an adequate share in the projects under the call "Top Research" in the Operational Programme OP JAK, one of which we coordinate and for which we received the highest rating. This success is a testament to the quality of our research teams and their ability to compete at the highest level.

Our university has also made a significant impact in the area of artistic outputs, where we have seen an increase in the performance and quality of our artistic disciplines, and our RUV scores make us one of the highest ranked universities in the whole country. This achievement demonstrates not only the breadth and diversity of our academic activities, but also that the arts have earned a well-deserved and respected place at our university.

Another area in which we have been heavily involved is environmental sustainability. We have also concentrated our capacities and set internal conditions in this area. We have presented our environmental technologies, approaches and achievements, among other things, in the Senate of the Czech Republic. This underlines our responsibility for the future and our efforts to contribute to sustainable development through technological solutions.

The year 2023 was also a year when our academic and research staff received many significant awards for their teaching and creative achievements, as well as for their social contribution at national, regional and municipal level. Many achievements were also recorded by our students, who won numerous national and international awards in the fields of study, research, creativity and sports. You can read the list of achievements and awards in the following chapter. We are extremely proud of the achievements of all our people, both employed and students, and once again, on behalf of the University management, I congratulate and thank them all for their activity and representation.

All of this has been reflected in our university's rise in international rankings. We moved up 200 places in the Times Higher Education rankings, the same shift was recorded in the ARWU rankings, and we moved up 100 places in the QS World University Ranking. These results are not just about numbers, but above all about the fact that our university is becoming more and more visible and respected not only in the Czech Republic, but also internationally.

In addition to a number of excellent results, we reflect the external situation – be it security, geopolitical, energy – and support measures aimed at stabilising them at national and international level. We actively set the internal environment of the university to ensure dignified conditions, equality and a healthy social and creative environment at our university.

In 2023, we defended the HR Award and consider the development and care of human resources as one of our key priorities.

The year 2024 is the year the University celebrates its 125th anniversary, and a number of initiatives we have planned for the year are already underway. Above all, we will focus on strengthening the development of inter-faculty collaboration and strengthening the integrity within our University.

In the field of education, we are preparing for the implementation of the amendment to the Higher Education Act, especially the reform of doctoral studies. We will be focusing on the quality management system in particular, as well as on profiling our curriculum offerings and finding ways to support technical education. We want to revise the rules for crediting courses to ensure compatible conditions for comparing study loads within the framework of our alliance cooperation between the EULiST alliance partners in the development of joint studies. We will then fundamentally focus on the system of support for lifelong learning and the completion of the system of certification of continuing professional education in the form of micro-certificates and micro-diplomas.

In the field of research, we will continue on the path towards profiling the achieved research outputs and setting up the research environment in accordance with the amended Methodology 25+ in order to succeed in the upcoming evaluation of research organizations in 2025. We will continue to develop knowledge transfer, implementing the adopted organizational and methodological settings that will lead to strengthening the volume of both economic knowledge transfer in the form of contract research and non-economic transfer as a result of effective cooperation with partners from industry and the application sphere. In particular, we will continue to support and motivate the development of entrepreneurship, whether in the form of selling or licensing the results achieved, by supporting the establishment of spin-off/start-up companies, including student companies. The traditional student entrepreneurship competition "Let's do business!" will certainly continue. as well as the ContriBUTe project aimed at developing entrepreneurial thinking and culture at the university.

Within the framework of external relations, we will continue to set up and develop effective cooperation with industrial partners, who, in addition to cooperation in research, will be invited to discuss the content and structure of our study programmes and to identify the needs of educational offerings in the form of lifelong learning. We will strive to deepen and broaden our cooperation with secondary and primary schools as a way to promote technical education

and we will take steps to expand teacher education for our, especially novice, academics, but also in the form of developing teacher education programmes in collaboration with a partner university so that we actively enter the field of teacher education for vocational secondary schools. At regional and national level, we will continue to pursue initiatives to promote technical and science education. We will also continue the project initiated to build a National Centre of Competence for Semiconductors together with the partners of this initiative and actively participate in the preparation of the National Semiconductor Strategy. We will also prepare to meet the educational needs of both semiconductors and nuclear energy in anticipation of increased demand for qualified graduates as we develop our curricula in the relevant faculties.

In foreign cooperation, we will focus mainly on deepening cooperation and coordination within our university alliance EULiST and we will actively participate in initiatives of European associations, especially EUA and CESAER. Promoting the mobility of our students and academic and research staff, as well as international cooperation in education and research, is another priority we support as part of internationalisation. We will also place emphasis on the controlled improvement of the parameters entering into the evaluation of our university in international rankings.

Internally, we will finalise and submit our environmental sustainability strategy, including the implementation of the 17 SDGs. We will significantly focus on the HR and career development strategy as part of human resources management in the context of the development of the research environment, creating motivational conditions in the reward based on evaluation, as well as creating conditions consistent with benchmarked internationally accepted standards and standards given by methodological settings at the national level. Last but not least, we will present and discuss the investment strategy of the University in the context of the University's dislocation needs and development plans. We will actively continue to cooperate with the representations of the universities and the relevant ministries on methodological setting and optimization of funding mechanisms for universities, including support for technical education in the form of contract funding at the national level and their implementation in the budgeting at the university.

For our learners, we will focus on expanding the facilities for creative activities and clubs, as well as opportunities for extra-curricular sporting activities on our sports fields or cultural development, such as opportunities to perform in a choir. We will also pay attention to facilities for leisure activities for our students and to the services of the halls of residence and canteens. We will pay particular attention to the topic of social security and the unexpectedly topical issue of physical security. In general, we want to focus our support more towards gifted and talented students. In connection with the implementation of the amendment to the Higher Education Act, we will be setting the conditions for securing doctoral income for our doctoral students.

We will also fundamentally address the very topical issue of academic failure and look for appropriate forms of support for needy students as a way to reduce it.

I hope in all this that we will simultaneously enjoy the events that we will be hosting in connection with the celebration of the 125th anniversary of the founding of our university.

Also in connection with the celebrations, we will actively pursue the third role of our university and our involvement in the events and support of the development activities of the city of Brno and the South Moravian Region in the coming year. Within the framework of the University of the Third Age, we will continue to support the quality of life of our seniors and introduce the wider public to technologies and results of technical development through education and presentations. In the field of art and architecture, we will also contribute to the development of the cultural space in our area of competence through various forms of activities. At the same time, we will strive to build the image of our university as an independent knowledge centre and to provide professional support to public administration institutions and the general public through consultancy and expertise.

I am convinced that thanks to the high professionalism of our academic and non-academic staff, the quality of our PhD students, and the talent and motivation of our students and graduates, together with the support of our partners at national and international level, both from the private and public sector, and the use of top-quality teaching and research infrastructure, we have excellent prerequisites for the further successful development of our university. In this way, we can contribute to positive changes in society through education, research, technological development and knowledge transfer, while supporting the competitiveness of the Czech Republic and the European Union.

Thank you all for your work, cooperation, support and goodwill in the past year and I look forward to further successes together.

I wish you a pleasant reading.

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

1.2 Significant events at the BUT in 2023

Actions and events

On 3 January, SpaceX's Falcon 9 rocket BDSAT-2 carried a **Czech nanosatellite** into space, on which scientists from FEEC and CEITEC BUT, among others, collaborated. It was designed for experimental verification of both industrial pressure sensors in the space environment and a bank of supercapacitors as a modern energy source for space applications. Nanosatellite won the highest award in the Golden AMPER 2023 competition.

The **Business Point** competition took place at the BUT after a 2-year hiatus. The finals of the traditional management and marketing competition, which took place at FBM for teams of students from secondary schools, took place in January 2023. In the management and marketing theme, the team from SOŠ Luhačovice took the first place, and in the management and information category, OA Olomouc won.

BUT hosted a lecture on the **human resources management** system. Human resources experts Anna Steiger and Heidemarie Pichler from TU Wien gave a lecture on the human resources management system. The lecture was addressed to the management of the faculties and units of the BUT. The purpose was to get an idea of the organisation, system and approaches to HR management at TU Wien and to be inspired by good practice.

The BUT has successfully completed the **EUA/IEP international evaluation** in cooperation with the European University Association (EUA), an external quality assessor. The evaluators conducted countless interviews with the management of the university, faculties and institutes of the BUT, as well as with staff and students. The result is a final report that focuses on the institution as a whole, covering the areas of management and decision-making, quality, teaching and learning, creative activity or internationalisation.

Pavlović from Bosnia and Herzegovina and Ignacio Fernández Torres from the Universities of Seville and Vienna, was interested in gravitational brick building or reflection on global issues applied to the Czech environment.

Twice during the year 2023, senators and senators were able to get acquainted with the activities of the BUT. In January, the Rector Ladislav Janíček visited the **Education Committee of the Senate of the Czech Republic**, where he presented the profile of the university and pointed out the role of technical universities in general for building the competitive potential of the national economy and industry. On the occasion of **Antarctic Day**, a meeting of representatives of Antarctic cooperation was held in the Senate of the Czech Republic on 1 December. The University was represented by the Rector Ladislav Janicek and the deans of five faculties of the BUT, which presented itself as a technological partner of Antarctic research.

The European Space Agency (ESA) has awarded the project of a satellite from BUT, which is part of the CIMER mission, on which the YSpace student team from BUT is collaborating with scientists from MENDELU. The aim is to **send the first Czech student satellite** into Earth orbit, where the researchers want to carry out a biological experiment. The potential of the mission was recognised by ESA at a workshop where Yspace had the opportunity to present its proposal.

BUT introduced a test **platform for ground-based simulation of space missions**. It is a new HELP habitat for astronauts' life safety in inhospitable environments. It was presented by Vratislav Šálený from FME at the Get-together: Analogue missions event, which deals with the topic of analogue missions – simulations of missions in any alien environment, including on another planet.

▲ The 24th edition of the **Bohuslav Fuchs Prize**, a competition of student works at the FA, had unique evaluators. The jury, consisting of Miron Mutyaba from Zaha Hadid, Andrea

▲ Researchers at FEEC have developed the **BUTCA training platform**, which offers training and education in cyber security through play. Visitors to the AMPER trade fair in

Brno, where it won an honorable mention in the Golden Ampere competition, were able to get to know it.

On 30 March, the BUT management invited top representatives of industrial partners to a **discussion meeting** to develop closer cooperation in the field of education and research. The meeting was attended by representatives of 42 partner companies, including Honeywell, Thermo Fisher Scientific Brno, Onsemi, GE Aviation, ABB, E.ON, Tescan, Microsoft and many others, whose mutual cooperation and support the university values.

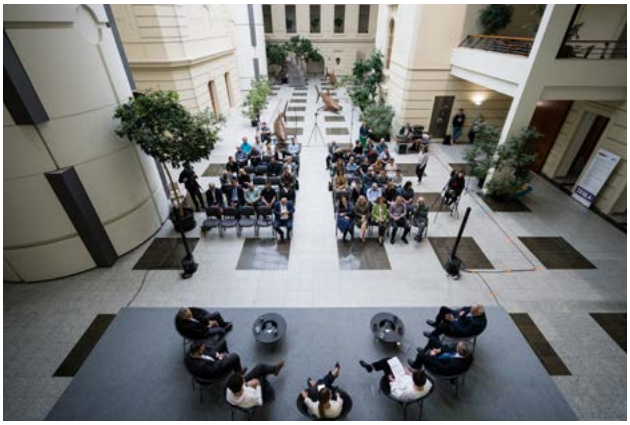
On 6 April, an event organized in cooperation with the American Chamber of Commerce in the Czech Republic took place at the BUT. The topic of the discussion was the **concept of "Big Bets"** for investment in research and development in strategic technologies to ensure the competitiveness of the Czech economy and how this concept can support cooperation between academia and business.

Participants at the annual conference at the FCH discussed how **Methodology 17+** has performed over the past five years. Compared to the previous preference for the quantity of scientific outputs, it has brought more emphasis on qualitative indicators in the field of national evaluation of science and research.

FIT hosted the international conference **EvoStar 2023**, which focused on evolutionary algorithms in programming, their optimization and applications in, for example, neural networks or art.

Young engineers from the TU Brno Racing team went to three **races of the Formula Student World Series** in August. They did well with their Dragon e3 electric monopost and returned home with second, fifth and tenth place overall in a tough international competition. As part of the series, they also took part in autonomous driving events without a pilot.

▲ **Mikuláš Bek, Minister for European Affairs**, visited the University. The guest discussed with the management of the BUT and the Rector's College the topics of the European education and research area, European projects, European policies and the role of technical education for the EU and the Czech Republic. He debated with students at the Faculty of Economics.



▲ On 16 May, the BUT organised a **round table on the topic of Technology vs. Ethics**. The intention was to discuss together with experts from different fields and thus reveal less expected links to the topic. Mathematician Miloslav Druckmüller, physician Břetislav Lipový, sociologist Kateřina Nedbálková, digital designer Lukáš Pilka, director of the Technical Museum in Brno Ivo Štěpánek and the rector of the BUT Ladislav Janíček took part in the debate as guests.

▲ BUT offered 14 exhibits at the **International Defence and Security Technologies Fair IDET**, which took place in May at the Brno Exhibition Centre. Visitors could, for example, see unmanned drones and ground robots controlled by artificial intelligence or mobile solutions for the protection of critical infrastructure objects using ballistic materials.

An international team of scientists has published the results of a unique experiment. In the process, they were able to image and analyse **terahertz waves in a semiconductor crystal**. Understanding this principle opens the way to the development of new communication technologies. The domestic representative in the team was researcher Andrea Konečná from BUT. The work was published in the prestigious journal Nature Materials.

▲ **Czech Prime Minister Petr Fiala** visited the BUT. His visit in May offered a discussion with representatives of the academic community of the BUT on the priorities of technical education and research in the Czech Republic. Petr Fiala praised the university for following the trends and demand of society. The visit also included a showcase of exhibits of research and creative activity at the BUT.

The **EULiST** Alliance, of which the BUT is a part, has succeeded in a call by the European Commission. Until now, the foreign network has only operated as a consortium, but thanks to the funding of the European Commission it has officially joined the European Universities.

BUT has become part of **Silicon Europe** through the Czech National Semiconductor Cluster (CNSC). It is a European cluster alliance for innovative electronic and software technologies, representing more than 2000 companies and research institutions. CNSC, of which BUT is a member, aims to be a competitive cluster, especially in the field of semiconductor technologies.

After weeks of work by mathematician Miloslav Druckmüller from the FME, a huge amount of data was used to extract unique **photographs of this year's total solar eclipse**. The event took place on 20 April 2023 over the west coast of Australia, where an international scientific team consisting of mathematicians from Brno and astrophysicists from the University of Hawaii went to see it.

To support the best Czech research with strong application potential and to strengthen interdisciplinary cooperation – these are the objectives of the call, which distributed CZK 8 billion under the **Jan Amos Komenský Operational Programme** (OP JAK). The highest number of points was awarded to the application from FME within the Top Research Challenge.

Brno has the ambition to be a centre of biotechnological research and education. That is why the Regional Chamber of Commerce has established the **Life Sciences 4.0** platform. The BUT is also a member of the platform. The aim of the platform is to support and develop innovations in the field of pharmaceutical production, telemedicine, green transition and other disciplines related to life sciences.

At the end of August, the **International Central and Eastern European Conference on Thermal Analysis and Calorimetry** was held at the FCH, welcoming almost 200 experts from 24 countries. The conference was dedicated to Professor Jaroslav Šesták, a world-renowned Czech scientist in the field of thermics and kinetics, on the occasion of his 85th birthday.

The 11th International Conference on Biopolymers **"European Symposium on Biopolymers"**, organized by the FCH, took place in September at the Brno Observatory and Planetarium. The conference was attended by over 150 experts ranging from molecular biologists and biotechnologists to experts in the characterisation and processing of biopolymers to application specialists in fields such as agriculture, cosmetics and medicine.

The **European Week for Sustainable Development** took place at the BUT from 20 to 26 September and offered a sports week, tree planting, a lecture on electromobility, the exhibition The Wide Perimeter of Architecture and a round table on Entrepreneurship from my point of view. Those interested could also come and see the beehive at FCE.

The **Music from FEEC** music festival attracted nearly 10 thousand spectators. The 15th anniversary edition kicked off with a traditional competition of student bands. The winner was the band Disonant. The festival ended with the popular Vypsaná fixa. At the end there was a drone show of the FlyinDiamonds graduate project. The ninth edition of FASTfest on the FCE campus offered, for example, singer-songwriter Michal Horák and rapper Separo.

▲ FEEC offers a new **photovoltaic polygon**, which will be used by students as a classroom for training in the installation of photovoltaic roof systems. The polygon was created in cooperation between the BUT and the Czech Photovoltaic Association.

The **Week of Sport at BUT** took place from 19 to 23 September. There were 32 events, including hiking, gym exercises and badminton. A total of 450 people took part, including 270 students, 150 employees and 30 students of the University of the Third Age.

▲ The well-known popularization event **Night of Scientists**, which was linked by the theme of mystery, offered a varied program at 8 faculties and 3 institutes of the BUT, which attracted 7,592 visitors, which is 1394 more than in the previous year. The largest number of visitors came to FCE and FME.

BUT Junior is a popular project of leisure activities that has been introducing primary school pupils and students of lower years of multi-year grammar schools to the university environment, modern technologies and the latest scientific knowledge for many years. During the academic year, students visited laboratories and workplaces across the university to try out experiments in the fields of civil engineering, mechanical engineering, IT, electrical engineering, architecture and robotics. The year concluded with a graduation ceremony for the graduates.

▲ For the third time, the BUT joined the charity collection **Pie for Hospice**, which was organized on 4 October by the Diocesan Charity of Brno to support health and social services for terminally ill people. Students and employees of the BUT operated four stalls and one mobile unit where they offered cakes to donors. They contributed a record amount of CZK 94,350.

BUT and onsemi signed a **Memorandum of Understanding to expand cooperation in semiconductor technology research**. The objectives include strengthening competencies in research and development of semiconductor technologies, component design and semiconductor analysis. One of the largest semiconductor technology manufacturers in the world has been cooperating with the university for many years in teaching or internships for students.

Brno International Week, an event with the participation of prominent experts from France, Latvia, Mexico and Germany, took place in October at the FBM. Its main objective is to collaborate in the pedagogical and scientific fields and also offers students new perspectives on global issues in the fields of business, management, digitalization, systems engineering and informatics or sustainable development.

FEEC has introduced a new programme for the education of cyber security specialists – **Master of Science in Cybersecurity** (proCyber). It is designed primarily for practitioners who need to supplement their education in this area or learn where the field has moved in recent years.

▲ On Wednesday 11th October the BUT Cavaliers and HC MUNI played in Brno as part of the **Hockey Clash of Universities** series. The Cavaliers decided their victory with two goals in the end and won in a thrilling match 3:1. It was an unprecedented show in Czech university sports, culminating in a record for the noisiest backdrop at a sports match in the Czech Republic and an official entry in the Czech Book of Records.

▲ The **Minister of Finance of the Czech Republic Zbyněk Stanjura** visited the BUT in October. On the agenda of the visit was a discussion meeting with students, which took

place in the historic FIT campus. In the debate, Minister Stanjura answered questions on, for example, the possible introduction of the euro or the financing of higher education.

Representatives of student associations from BUT presented more than ten projects at the 6th annual **Maker Faire**. For example, students from the open workshop strojLab, the creators of a compressed air vehicle from Pneumobil Racing Team Brno, the developers of a student formula from TU Brno Racing or the student team Chicken Wings, which is dedicated to the development of drones.

At the regular **meeting of the Academic Senate of FIT** on 31 October, a candidate for appointment as Dean for the term 2024–2028 was elected.Petr Hanáček, the current head of the Institute of Intelligent Systems and the President of the Academic Senate of the BUT, was elected.

▲ **Honeywell and BUT have signed a memorandum** that expands cooperation on research and development in areas such as aerospace, healthcare and warehouse automation. The aim of the agreement is to better share the scientific potential of both institutions and to offer students the opportunity to join teams at Honeywell's Brno R&D centre.

▲ The **International Scientific Council of the BUT** met for the first time at the BUT in November. The members of the Council got acquainted with the University, its strategy, goals and infrastructure. In particular, the Council praised the cutting-edge research infrastructure and the highly motivated researchers. It also provided valuable feedback on the internal evaluation of science and other creative activities at the BUT.

▲ At the end of October, BUT organised a **roundtable on technical education** with the participation of key representatives of the government, educational institutions and industry. The main topic of the discussion was the search for ways to increase interest in studying technical and natural sciences not only in the Czech Republic but also in Europe.

The seventh edition of the innovative technologies conference **Live IT**, organized by FIT in cooperation with corporate partners, was attended by over 250 students, academics and company representatives. The programme included panel discussions, lectures and company presentation stands. The aim of the event is to present practical professional topics to students.

The tenth edition of the **Merkur perFEKT Challenge** was attended by 228 students from 35 secondary schools, who competed in the Superfinals in February. During the competition day, the students worked on building a working model of a wind power plant, controlling a car using their muscles or building an automated waste sorting plant.

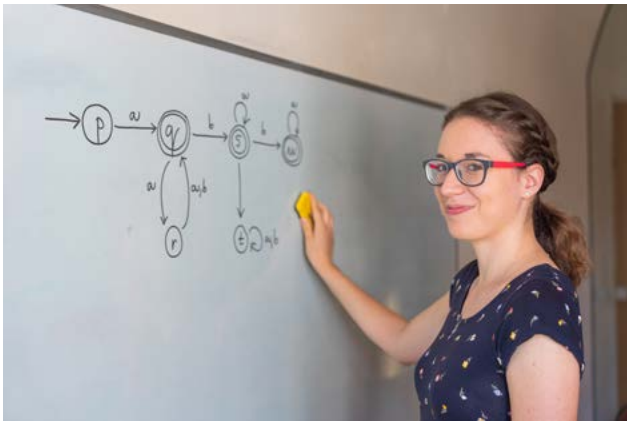
In November, the Czech Center in New York hosted the **exhibition Beautiful Work**, which included works by students of the Product Design Studio at FFA.

A total of CZK 2.2 million was divided among four successful projects in the December round of the **Prototype and Verify** programme, which the City of Brno in cooperation with the JIC innovation agency supports start-up business plans. Three of them are from the BUT, with the success of an AI system for the diagnosis and therapy of speech disorders, an innovative battery technology for a student team and new gaming equipment for airsoft, laser game and paintball.

In December, the 7th annual **BUT Ball**, organized by students and alumni of the university, took place at the Brno Exhibition Centre. The event welcomed over 3,600 visitors. The inspiration was the world-famous book magic phenomenon. However, the main message of the event was that there is no need for magic and spells in the real world because there is science and technology.

Achievements and awards

The Director of the Institute of Physical Engineering of the Faculty of Mechanical Engineering of the Brno University of Technology, Professor Tomáš Šikola, and architect Zdeňka Vydrová, a graduate of the Faculty of Physical Engineering, who now works at the Faculty of Civil Engineering of the Brno University of Technology, were awarded the **Brno City Prize**. The awards for important personalities of the city were presented to the laureates at the beginning of the year by the Mayor of Brno.



▲ FIT student Barbora Šmahlíková won the first annual **Government Award for a Gifted Student** for her contribution in the field of algorithm development. Her bachelor's thesis on algorithms was also awarded the International Student **Prize of the Vienna Centre for Logic and Algorithms**, part of the Vienna University of Technology.

▲ In March, seven PhD students from the Brno University of Technology received a scholarship cheque for their further research within the **Brno PhD Talent** Programme during a gala evening at Brno City Hall. Each of them received a scholarship of CZK 330,000 for the next three years. The awardees are working on algorithm development, diagnostics of electric drives or detection of plastics in the human body, to name a few.

Markéta Tesařová from CEITEC BUT won the 3rd place in the **Best Dissertation 2022** category of the 25th annual Werner von Siemens Prize and received the **Award for Excellence in Women's Scientific Work**. Other students from the BUT also succeeded. They ranked in both the Top 10 Best Thesis of the Class of 2022 and the Top 10 Dissertation of the Class of 2022.

▲ Athletes from BUT are among the most successful academic athletes in Brno. This was confirmed by the March announcement of the **top Brno academic athletes**, where sports climber Šimon Potůček, triathlete Tomáš Kříž, ski orienteer and biathlete Ondřej Vystavěl and orienteer Martin Roháč, who represented the BUT at the 2022 Academic World Championships, were awarded. Šimon Potůček confirmed his quality by winning the Academic Bouldering Championship of the Czech Republic. His colleague Tereza Širůčková from FCE climbed to bronze at the European Games in Poland. Both of them also won gold at the Czech Academic Championships in climbing on difficulty. Para-karate athlete Veronika Kamenska was second at the World Championships in Budapest and Richard Klem won the World University Power Triathlon Championships in Slovenia. Michaela Křížová took second place at the Women's Gliding World Championships in Spain this summer. The BUT athletes also did well in the Czech Republic – Martin Kinc won the Academic Championship of the Czech Republic in radio orienteering, the BUT men's volleyball team won the final of the University Volleyball League. A total of 18 medals were brought back by BUT athletes from the Czech Academic Games, which took place on 3–7 September in Olomouc. The successes were collected mainly by judo players, swimmers and again volleyball players. BUT also won silver in the rowing races of Osma Brno.

Students of the Faculty of Architecture of BUT succeeded in two competitions. Patrícia Pecková won 2nd place and an award in the international urban design competition **Urban Design Award** with her work, which deals with the transformation of a development in Brno into a carbon-neutral district. Another success was achieved by FA students in the student landscape architecture competition **Laurus 2022** with a project that focuses on the Polish seaside resort of Swinoujscie.

In March, the BUT Ball won an award at the **Czech Event Association's Annual Awards** for the best event projects in the Czech Republic implemented in 2022. The successful event was nominated in two categories and won 3rd place in the B2P events to support public relations category and a place in the TOP 5 in the Entertainment and Show Business category.

▲ A monograph by sculptor Jan Ambrůz has become the **Most Beautiful Czech Book of 2022**. The book, which was produced in cooperation with VUTIUM Publishing House and the Friends of the Brno House of Arts, won the title in the category of fine arts in the prestigious graphic design competition. The authors of the graphic design of the publication are FFA graduates Tereza Bierská and Nela Klímová.

Patrícia Janigová, a third-year student of Biomedical Engineering and Bioinformatics from FEEC, became the queen of the **Brno Majáles festival**.

Within the **Building of the South Moravian Region** competition, a competition for the best student and doctoral thesis in the field of civil engineering was held for students of the Faculty of Architecture and the Faculty of Civil Engineering of the BUT. In the end, a total of ten works were awarded, including three works by FA students and seven works by FCE students.

The project from FCE impressed the public in a student competition focused on wooden construction in the Czech Republic. The second place in the category of wooden buildings in the competition **Buildings with the smell of wood** went to the wooden log house of Jana Ambrožyová, a student of Environmentally Advanced Buildings.

In June, the laureates of the **South Moravian Region Prize for 2022** received their awards. The prize rewards outstanding contributions to the development of the region. Among the thirteen awardees are mathematician Miloslav Druckmüller from FME for his contribution in the field of science and sculptor Michal Gabriel from FFA for his contribution in the field of art.

As part of the international network of partner universities **PRIME Networking**, students of the Faculty of Business at BUT participated in two competitions. The student competition Hackathon 2023 allowed the participants to test their skills in time management and teamwork. The winning team included FBM student Ivan Kebísek. Six FBM students took part in a competition in Germany as part of the **Euroweek** student conference. The first prize was awarded to Kristína Oškerová and Matúš Štefanča.

A footbridge and a bridge of FCE students succeeded in the **Czech Transport Construction and Technology of the Year** competition, which is held under the auspices of the Ministry of Transport of the Czech Republic. The Rector's Award of the BUT, coupled with an extraordinary scholarship of CZK 20,000, was awarded to Petr Tomečka for his diploma thesis Pedestrian footbridge over the Nitra River, and the Dean's Award of FCE, coupled with an extraordinary scholarship of CZK 10,000, was awarded to Tomáš Kaut for his diploma thesis Urban Bridge in Považská Bystrica.

PhD students of the BUT took the top positions in the awards organized by the French Embassy in the Czech Republic. Filip Kinnert from the FA won the 2nd **Jacques Derrida Prize** for his dissertation in the field of architecture and two PhD students from the FIT Ladislav Mošner and Jiří Matyáš won the 2nd and 3rd prize of the **Joseph Fourier Prize** for their work in the field of computer science and informatics.

▲ This year, the **Entrepreneurship Award for a BUT student** was awarded to Pavel Šafl, a student of FEEC. He founded the company OMG Robotics and supplies schools with special kits for children to learn programming. He also trains teachers.

Professor Vladimír Šlapeta of the FA received the distinguished **Triennial UIA Jean Tschumi Prize** at the International Congress of Architects in Copenhagen in the fields of architectural criticism, architectural literature and education.

At the 7th edition of the SVS FEM competition for the best student project in the field of numerical simulations, the students of BUT succeeded and won four **Professor Jaroslav Buchar Prizes**. Natália Pločeková, a student of FEEC, took the first place, the other two places were taken by students of FME Jiří Janečka and Michal Dorniak. Matěj Kubík from the same faculty also won the jury award.

The Minister of Education, Youth and Sports Mikuláš Bek presented the **Medals of the Ministry of Education and Science** to important personalities of Czech pedagogy. Among the awardees were also teachers from the BUT – Professor Emeritus Pavel Jura from FEEC and Professor Jiří Stráský from FCE.

▲ The **Rector of the BUT awarded** the 24. Academic Assembly of the University of Technology of Brno. A total of six gold medals, twelve silver medals and eight commemorative medals were given out. He also wished the winners of the student survey Best Teacher according to the evaluation of students at the BUT and presented the Rector's Prizes to graduates of bachelor and master study programmes and young academic staff. For the first time, the Rector's Prizes for outstanding scientific achievements and artistic outputs were also awarded.

The TL-5000 Sparker ultralight aircraft flew to the **International Engineering Fair** to receive the **Gold Medal**. The aircraft was loaned to the exhibition by the Hradec Králové company TL-ULTRALIGHT, which cooperated with experts from the FME Aviation Institute on the development of the aircraft.

The President of the GA CR and the Minister for Science, Research and Innovation jointly awarded the five **best scientific projects for 2023**. One of the five laureates is Professor Martin Vrbka, who leads the biotribology research group at the FME.

For the seventh time in a row, FME won the **School Recommended by Employers** competition. Representatives of companies from all over the Czech Republic evaluated the faculties of universities in terms of their contribution to the labour market and the qualifications of graduates. The result of FME also contributed to the bronze ranking of Brno University of Technology among Czech universities.

On the eve of the celebration of the International Students' Day, the **Hlávka Foundation Awards** were presented to 6 talented young scientists from the BUT who are engaged in demanding scientific and technical fields in which they achieve extraordinary results. The award is associated with a contribution of CZK 25,000.

The **Ministry of Education, Youth and Sports awards** in the field of higher education, science and research were received by two representatives of FME on 20 November. Petr Dvořák, an educator and physicist, received the award for outstanding educational activities at the university and Kristýna Davídková, a graduate student, received the award for outstanding students and graduates.

Renowned researcher Jiří Jaromír Klemeš from FME has again this year been ranked in the prestigious **Highly Cited Researchers** list, where Clarivate annually ranks the top one percent of the most cited scientists in the world. This is the fourth time that Professor Klemeš has been among the world's most cited scientists, but unfortunately this year he has been included in memoriam.

Representatives of the FBM have succeeded in the fifth edition of the **Atlas Copco Services 2023 Prize** for the best economics theses produced at Czech universities. The winner of the competition was Vít Páter with his diploma thesis on crypto-assets. The silver place went to Sandra Suszterová with her thesis Applications of Business Intelligence in the corporate environment.

▲ The Czech Astronomical Society has awarded its highest award – **the Nuslov Prize** – to Professor Miloslav Druckmüller from FME. The Brno mathematician was awarded for his world-class results in the mathematical processing of solar eclipse images.

Michaela Vojníková from CEITEC BUT received a prestigious **Fulbright scholarship**. At the University of California, San Diego, she will continue to develop new non-invasive treatments for cancer with Joseph Wang, a leading specialist in nanorobotics.

Within the framework of the competitive show of diploma theses of architects, landscape architects and urban

planners organized by the Czech Chamber of Architects, FA students received three awards: the **Special Award of Cegra** by Klarisa Ach-Hubner; **Honorable Mention** by Ondřej Válek; **Kaplicky Internship Award** by Anna Jelínková.

Young designers from all types of schools competed for the National Student Design Award and the Outstanding Student Design and **Good Student Design awards**. The Good Student Design 2023 Award went to Jan Vítek of FFA for his design of an electric motorcycle and Jan Dvořák of FME for his design of the Digger electric scooter.

▲ The winner of the showcase of the **best bachelor thesis 8 from BUT** was Jan Holba from FEEC with his presentation on the topic of digitalization of a robotic bartender before Samuel Zvolensky from FBM, who presented the topic of data centres and Veronika Chrástová from FCE, who dealt with the revitalization of a water mill.

The **award of the Deputy Governor of the South Moravian Region** for the best student thesis on the environment and ecology related to the territory of the South Moravian Region was awarded to Jan Vespalec, a PhD student from the Faculty of Chemistry, for his diploma thesis Classification of concentrate from membrane processes.

The **Minister of the Interior Award** for outstanding achievements in the field of security research was presented to the team of the Institute of Telecommunications of the FEEC on 14 December. The award was given for the Cyber Arena project for research, testing and education in the field of cybersecurity.

The TU Brno Racing student team, composed of BUT students, is the best among Czech formula cars. In the past racing season, it broke into the top 20 in the world, specifically, it is ranked 17th in the electric car category in the final ranking of the **Formula Student** series for the 2022/2023 racing season.

The **Vinyla 2023** Music Awards for Discovery of the Year went to FFA student Klára Odehnalová (aka Klara Wodehn). The award for the record of the year went to FFA graduate Václav Peloušek, performing under the name Toyota Vangelis.

Jubilee

The Technical Museum in Brno organized the exhibition **"There is no Tesla like Tesla"**, which was held on the occasion of the 80th anniversary of the death of the eminent physicist and visionary Nikola Tesla, who has been an honorary doctor of the university since 1937. At the same time, the exhibition mapped the history of the electrical engineering company TESLA in the Czech Republic. The BUT in cooperation with the museum prepared accompanying activities for the exhibition – programmes as part of the Brno Museum Night 2023, thematic lectures and a round table meeting of experts entitled Technology versus Ethics.

FFA celebrated its **30th anniversary**. For this occasion, it prepared a wide range of activities and the crown of the celebration was an exhibition entitled "When one autumn morning studying", which was held in October and November in the House of the Lords of Kunštát.

On 27 October, the BUT commemorated the **110th anniversary of Otto Wichterle's birth**. The world-famous inventor of contact lenses was also active at the BUT from 1947 to 1951, when he gave lectures on Selected Papers in Organic Chemistry at the Chemistry Department.

▲ BUT celebrated **25 years of the Erasmus programme in the Czech Republic** with the "Erasmus BUT Football Match and Workout" football tournament. Six teams consisting of Czech and foreign students participated in the event. The aim was to connect the international community at the BUT and celebrate the programme, which has been operating in the Czech Republic for 25 years and enables to educate students and staff all over the world.

1.3 BUT Science Centres

Central European Institute of Technology (CEITEC BUT)

The year 2023 was a dynamic year at CEITEC BUT. Great successes were recorded especially by scientists from the CEITEC Nano research infrastructure, but also by experts who are engaged in applied research and develop cooperation with companies. This line of research has been established at CEITEC BUT for a long time and especially the CT LAB CEITEC has built a very good reputation among companies. Since last year, the expert team of RICAIP Testbed Brno has also become more involved in this area.

In early January, SpaceX's Falcon 9 rocket blasted into space, carrying the BDSAT-2 nanosatellite into orbit. The aim of this project is to test selected pressure sensors for demanding space applications and the use of a bank of supercapacitors as an innovative solution for storing electricity from solar cells on satellites. Data from the satellite are continuously processed under the guidance of Radimir Vrba by researchers from CEITEC BUT together with colleagues from FEEC. Towards the end of the year, a website was also launched where the data can be monitored live. The BDSAT-2 nanosatellite won the highest award in the Golden AMPER 2023 competition.

The ambitious METASPIN project, coordinated by the University of Paris-Saclay, has received support from the European EIC Pathfinder Open call. In this project, researchers from CEITEC BUT, led by Vojtěch Uhlíř, will focus on creating a revolutionary artificial synapse technology that could solve the main problem of artificial intelligence applications – catastrophic forgetting. Vojtěch Uhlíř's team will be responsible for modifying prototype circuits using antiferromagnetic materials that have an unusual internal structure and do not exhibit magnetic properties externally. The scientists' task is to find a way to read and manipulate the magnetic orientation of these materials.

The CEITEC Nano research infrastructure is also a success. It provides comprehensive facilities, expertise and methods for research and development in nanotechnology and advanced materials. CEITEC Nano's facilities for nanofabrication, nanocharacterisation, structural analysis and X-ray tomography enable the complete fabrication of nanostructures and nanodevices and their characterisation down to the sub-nanometre level in a completely clean environment. Today, the CEITEC Nano research infrastructure has more than 80 instruments, a research and professional staff of over 30 experts with different specialisations and more than 400 users per year. They spent more than 100,000 instrument hours there in 2023.

CEITEC Nano, together with the Laboratory of Nanostructures and Nanomaterials at the Institute of Physics of the CAS, is part of the larger research infrastructure CzechNanoLab, which is at the very top of the European market for nanoscience and nanotechnology research. Michal Urbánek, the head of the CEITEC Nano Research Infrastructure and coordinator of the entire CzechNanoLab, submitted an application last year in the OP JAK Research Infrastructures I grant call, in which his CzechNanoLab+ modernisation project succeeded with an excellent score of 78 out of 80 points, making it the most successful project ever in this call. The project was supported for funding without budget cuts and received CZK 361 million for equipment modernisation and innovation.

CEITEC BUT also organizes the CEITEC Student Talent Summer School for high school students every year, which aims to broaden the awareness of scientific work and research. During the four-day summer school, students chose from several topics, which were covered by mentors from among PhD students. In addition to working in the laboratories, the learners took part in an accompanying programme and scientific lectures. The summer school culminated in a joint presentation of the topics and results to a panel of experts.

Ľudmila Kvašňovská, a high school student, was researching lipid nanoparticles during the CEITEC Student Talent summer school. It was with this topic that she later entered the Slovak Festival of Science and Technology AMAVET, where after winning the regional round she advanced to the national round and was nominated for the ISEF competition, which she participated in with her lecturer Michaela Vojnikova.

On 7–8 November 2023, the 12th Europen School for Young Material Scientist took place in Brno under the auspices of RG prof. Tomáš Šikola.

CEITEC BUT Director Radimír Vrba also awarded the greatest scientific achievements from the previous year with the Director's Award. The Student of the Year was Michaela Vojníková, who received the award not only for her achievements in the field of science popularization, but also for the results of her research so far. The publication of the year was research in the field of nanotechnology, led by Martin Pumera and Mario Urso from CEITEC BUT. And the best project was the aforementioned METASPIN.

In 2022, Alžběta Ressner was awarded a Fulbright-Masaryk Fellowship to work at the Innovative Genomics Institute at UC Berkeley from August 2022 to July 2023. The institute is the world's best in CRISPR research and is connected to a major hospital in San Francisco, which has allowed access to samples from patients suffering from various diseases. Elizabeth worked with a particular family with primary immunodeficiency for whom she created a customized therapy.

In December 2023, Michaela Vojnikova was awarded another Fulbright Fellowship to start in August 2024 for up to 9 months. Michaela's research focuses on so-called lipobots, i.e. theranostic nanoparticles that are also intelligent nanorobots. She will be working in the USA at the University of San Diego with Professor Joseph Wang, a leading expert in the field.

Two Werner von Siemens 2023 awards for young scientist Markéta Tesarová from CEITEC BUT – in the category of Best Dissertation and the Award for Excellence in Women's Scientific Work. The topic of her dissertation was Quantitative 3D characterization of biological structures using X-ray computed microtomography.

Student Victory Jaques has developed a method to preserve the cultural heritage microsites under study. For her work, she won the Radim Kettner Prize in the category of best publication as an academic (junior), awarded by the Institute of Geology and Paleontology of the Faculty of Science of Charles University.

The Austrian Federal Ministry of Education, Science and Research has been awarding the Danubius Prizes since 2011. The prestigious Danubius Young Scientist Awards for young scientists went to physicist Zdeněk Jakub, who at CEITEC BUT focuses his research on single-atom catalysts, which have the potential to make chemical processes more efficient in new green technologies.

A significant achievement in the field of cooperation with industry is the GlaCerHub project coordinated by Karel Maca. The project creates a shared space for academics, scientists and representatives of small and medium-sized companies in the glass-ceramic industry in the Czech Republic and Slovakia. It aims to establish an innovation centre that will grow in the South Moravia and Trenčín regions, linking research with industry and enabling the creation of new projects and spin-offs. The European Union has supported this project with €5 million.

Michal Urbánek has been awarded a project of the Grant Agency of the Czech Republic (GA CR) Low-loss magnonics controlled by current and fluxons. His team, together with colleagues from Austria and Poland, will build the foundations of a new direction in physics, which consists in the coupling of magnetic materials with superconductors to create ferromagnet/superconductor hybrids.

The Brazilian scientist Vinicius Santana, who works in the area between physics and chemistry, specifically in the application of electron spin resonance, has been awarded the prestigious JUNIOR STAR 2024 grant by the GA CR.

Representatives of the prestigious Canadian university University of Waterloo and CEITEC BUT signed a memorandum on cooperation in nanotechnology research, mobility and other areas of mutual interest. The cooperation in nanotechnology and research and development of special measuring and analytical instruments will be enriched by mutual exchange of students and postdocs. The broad portfolio of international research cooperation will thus be strengthened by the addition of the top-notch facilities of the University of Waterloo in Canada.

In line with modern trends of connecting research and production, science and business, the sphere of applied research is growing significantly at CEITEC BUT. In this area it is worth mentioning the development of the activities of the experimental laboratory RICAIP Testbed for Industry 4.0 under the leadership of Pavel Václavek. Last year, a number of educational events and conferences for representatives of small and medium-sized companies took place, where several strategic partnerships were established and business activities were also launched. Thanks to the support from the European projects EDIH and TEF, Testbed offers "test before invest" services to companies with up to 499 employees at subsidised prices. Several contracts with corporate partners have already been signed for 2023.

In the coming years, new activities are expected to emerge that will provide researchers with input from industry and get scientific results into companies for application. Therefore, in addition to collaboration with companies, entrepreneurial initiatives by students and the creation of spin-offs and start-ups are also supported. These activities will be covered by the CEITEC Innovation Accelerator support programme, under which students will receive financial support at the start of their business venture.

New Technologies for Engineering Centre (NETME Centre)

Cooperation with a 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. NETME Centre operates as a scientific research centre at the Faculty of Mechanical Engineering. In 2023, the faculty's cooperation, including the NETME Centre, with industrial partners in the field of science and research amounted to CZK 76.2 million (from non-public sources), of which the Centre's contract research amounted to CZK 51.6 million. The Centre's research teams managed to deepen cooperation with long-term partners, but also to establish new collaborations.

In the field of basic research, the NETME Centre participated in 12 projects of the GA CR in 2023. The research teams succeeded with two more standard projects of the GA CR with the start of implementation in 2024. These projects constitute a stable significant share of the basic research of the faculty.

In the field of applied research, in 2023 NETME Centre was also involved in 37 projects of TA ČR. NETME Centre teams were also involved in activities in a total of seven National Centres of Competence, two of which they coordinated (MESTEC, NaCCaS) and five of which they participated in as partners (NCK Mechanical Engineering, NCK Energy, NCK BOVENAC, NCK NAHYC, NCK CANUT).

The cooperation with the company Hutira, which invited experts from the NETME Centre to solve the problem of wastewater from wineries, was a media success. Coping with the polluted water that is produced during wine production is a problem for conventional wastewater treatment plants. Winemakers therefore have to find a complicated and expensive alternative disposal method. But a new technology being developed by process engineers could help.

A test to measure human stress took place in the climate chamber at the NETME Centre. A team of researchers from the BUT, in collaboration with Uptimai, focused on measuring stress in response to increased cognitive load as part of the European Space Agency (ESA)-funded ICARUS ARMOR project. Major Ales Svoboda, a member of the ESA astronaut backup team, also took part in the test.

In the course of 2023, a total of 34 project applications were submitted to international cooperation projects: 11 projects were submitted to the Horizon Europe programme, six projects to the Inter-Action USA programme, two projects each to the INTER-COST, V4 Korea, Interreg Central Europe, Inter-Action Bavaria programmes and one project each to the ESA, Visegrad Scholarship, Mobility Czech Republic-Austria, Mobility Czech Republic-France, M-ERA.NET, Interreg Austria, COST, EIG CONCERT Japan, AKTION. Although the evaluation of all submitted projects is not yet known, the success rate of the evaluation in 2023 is at least 26%.

Successful projects include DiGiTT-Digital Skills Transformation Toolkit for a Resilient Labour Market, which was submitted to the Interreg Central Europe programme. FME acts as coordinator in the project. The project involves five other partners (Czech Republic, Austria, Germany, Italy, Croatia) and aims to develop retraining programmes that address the digital skills gap in the labour market for all groups of the population, from learners to companies and public institutions to individuals seeking employment. These programmes will be offered primarily through the project partners FabLaby in the Central Europe region.

The project ATCZ00043 PHOS4PLANT, funded by the Interreg Austria programme, which aims to recycle sewage sludge ash into phosphate-rich plant fertiliser, has also been successfully approved.

LPTP scientists will contribute to carbon neutral cities in collaboration with partners from Japan in the HFHX – Hollow Fiber Heat Exchangers with Reduced Permeability for Smart Cities project, which was supported by the EIG CONCERT JAPAN programme. The same research group has also

had success in a bilateral project entitled Multiphase Heat Transfer from Porous Oxide Structures Formed on Metal at High Temperatures, working with Arizona State University with US Steel as an industrial partner. The project is funded by the Inter-Excellence program.

One of the top-ranked INTER-COST projects is the project entitled Turbine pump: improving design and operating parameters through digitisation.

Centre for Advanced Building Materials, Structures and Technologies (AdMaS)

The AdMaS (Advanced Materials, Structures and Technologies) Research Centre is a modern science centre and a comprehensive research institution in the field of civil engineering, which is part of the Faculty of Civil Engineering. It focuses on research, development and application of advanced building materials, structures and technologies. However, its scope extends beyond the construction sector, for example through research on transport systems, municipal infrastructure and the circular economy.

The ninth year of full operation meant a change of management for the AdMaS Centre, when Petr Hlavínek took over the position of the Centre's director from Zdeněk Krejz. His ambitions were to continue research activities across the full range of activities, with an increase in international research cooperation activities and strengthening of researcher mobility and further development of cooperation with the private sector. By 2023, the operational demands associated with the covid-19 pandemic had subsided and the Centre's operations could once again operate at maximum capacity.

In accordance with the research objectives and the established research technical capacity of the Centre, research projects co-financed by the agencies GA CR and TA CR are being solved under the head of individual interest groups, projects under the Ministry of Education and Science, the Ministry of Industry and Trade, the Ministry of Foreign Affairs and the Ministry of Regional Development are being solved, and the volume of research carried out directly with companies as contract research has been slightly increased.

The AdMaS Centre actively prepares national and international research projects and continues to prepare new research areas, with the current focus on additive technologies, 3D printing and various forms of digitalisation. Innovations in the construction sector in the areas of improving existing technologies, materials and processes, circular economy and water and waste recycling in the context of green urban infrastructure were also core activities of the researchers in 2023. Thanks to the activity of all researchers at the AdMaS Centre, research activities continued in 2023 with a similar volume of outputs as in previous years.

During 2023, the AdMaS Centre was involved in several international projects. The project Innovative use of biochar in substrates and base layers of green parking lots was solved with the University of Banja Luka (UNIBL) in Bosnia and Herzegovina. The project Circular waste water management in conditions of 5 countries: concepts, approaches and technologies and the Norway Grants funded project 2014–2021 Validation testing of advanced oxidation processes for the removal of pharmaceuticals from WWTP effluent were addressed in the framework of the Visegrad Funds cooperation.

In 2023, the AdMaS Centre dealt with a total of 76 national and international projects under various grant providers (GA CR, TA CR, MIT, MIT, MoE, MoE, MoH, MoFA, MoHe).

In 2023, the Centre continued its intensive cooperation with the application sphere in the area of contract research, where it exceeded the revenue threshold of CZK 66.4 million in 626 contract research contracts, and in the area of joint R&D projects.

In 2023, the Centre completed the Sludge Hygienization for Minor Pollution Sources project, short name Kaloman. With the financial support of the MIT under the Operational Programme Enterprise and Innovation for Competitiveness – Applications Programme, Call No. VIII, its aim was to verify five technologies for the hygienisation of sewage sludge targeted primarily at smaller pollution sources, i.e. 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. Validated technologies for long-term storage of sewage sludge, limed sludge and sludge hygienisation by thermal treatment were developed and verified.

In 2023, the researchers of the AdMaS Centre led by Jakub Raček completed a two-year project funded by the Ministry of Education and Science entitled Circular Economy in Water Management from the International Cooperation in Research and Development activity to support the mobility of researchers with the University of Natural Resources and Life Sciences, Vienna (BOKU), Department Water-Atmosphere-Environment. Two workshops were held in 2023, the first in Vienna in April and the second in Brno in October. At the same time, one month internship of a Ph.D. student was carried out at the Vienna site. Based on the workshops and the internship, an overview of current practices and challenges in the partner countries regarding circular wastewater management was completed, focusing among others on blue-green urban infrastructure and natural wastewater treatment methods. Cooperation on the preparation of further mobility and scientific research projects was also discussed and addressed, and the preparation of a project for the Interreg AT-CZ programme was intensively pursued.

In addition, a project funded by the Ministry of Foreign Affairs entitled Innovative use of biochar in substrates and base layers of green parking lots was successfully resolved in 2023 from the programme Strengthening the capacity of public universities in developing countries, specifically in Bosnia and Herzegovina. Within the framework of this international project, a fully functional experimental green parking lot was built, including measuring instruments, which remain with the partner in Banja Luka for the continuation, long-term monitoring and evaluation of the experiment and for further scientific research activities and study needs. In addition, the objectives of the pedagogical-research cooperation have been completely fulfilled, the basic theses of the joint double degree doctoral programme have been elaborated and the preparation of the Memorandum of Cooperation between the BUT and the University of Banja Luka (UNIBL) is underway.

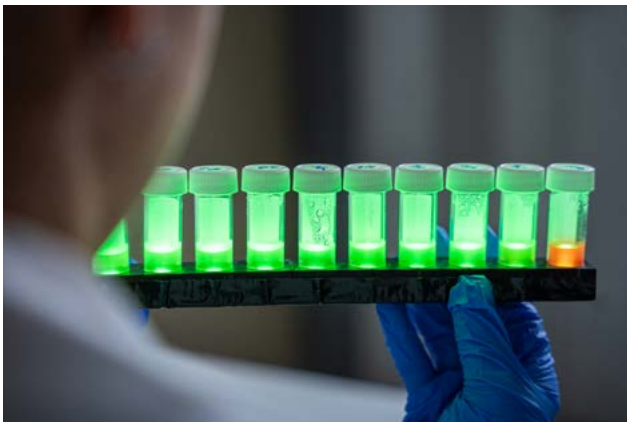
In 2023, a major in-situ testing of advanced oxidation technologies was carried out as part of the international

project Validation testing of advanced oxidation processes for the removal of pharmaceuticals from wastewater treatment plant effluent funded by Norwegian funds, where the project partners are the major Norwegian company NIVA (Norwegian Institute for Water) and the analytical laboratories ALS Czech Republic. The project aims to demonstrate the applicability of advanced oxidation processes based on ozonisation in combination with natural solutions (artificial wetlands, biosanitary filter, activated carbon filter) to remove selected types of pharmaceuticals and their metabolites from wastewater treatment plants. The proposed project is implemented in selected locations through long-term demonstration of the proposed technologies to achieve a minimum of 80% removal efficiency of these substances from wastewater. The project implements approaches for effective control of ozonation-based AOPs technologies for primary removal of micropollutants and their metabolites based on variations in the quality parameters of the treated media, while demonstrating the influence of natural solutions.

In 2023, the international project Circular wastewater management in a 4-country context: concepts, approaches and technologies was completed with the financial support of the Visegrad+ Grant of the Visegrad Grant Fund. Representatives of universities from the Eastern Partnership countries, i.e. the Czech Republic, Hungary, the Republic of Poland and the Slovak Republic, and a university from Bosnia and Herzegovina representing the Western Balkan countries collaborated on the project.

Centre for Materials Research (CMV)

The Centre for Materials Research (CMV) is a specialised research centre with a focus on applied research in inorganic materials, advanced organic materials, biomaterials and materials for smart technologies with an emphasis on their chemistry, properties and control. In recent years, CMV researchers have been focusing on sustainable technologies and materials, the environmental aspects of their production and the subsequent recycling or other environmental use of materials in all categories.



In addition to applied research and collaboration with industry, CMV also has strong basic research that profiles in the areas described above and serves as inspiration and a springboard for potential applications in the above-mentioned fields and disciplines.

The main goal of the Materials Research Centre at the Faculty of Chemistry is to develop cooperation between research at the university and real industry. The link between CMV scientists and industry is mainly realized in the form of contract research and jointly solved projects with own and grant funding.

CMV's very close cooperation with industrial partners achieves an effective transfer of knowledge from the laboratory to real practice. Within the framework of cooperation with the industrial sector, CMV involves FCH students in research tasks, which are solved in cooperation with industrial partners. More and more students are involved in such projects every year, thus gaining an overview of the real needs of industry, which contributes in no small measure to the fulfilment of the mission of the technical college.

As of 31 December 2023, 89 scientists/researchers were employed at CMV under research projects.

In 2023, the volume of contract research reached almost CZK 8.5 million. This amount represents 84 contract research contracts, which corresponds to an average of approximately CZK 100,000 per contract.

In cooperation with the application sphere, 19 subsidy research projects were implemented in 2023, of which 18 projects were implemented in the calls of TA ČR and one in the OP TAK programme, with a total financial volume of more than CZK 18 million.

In 2023, CMV scientists and researchers were involved in seven basic research projects supported by the General Assembly of the Czech Republic, the volume of funding amounted to almost CZK 12 million. One OP3V project and four NPO projects were also implemented under CMV. In total, 38 projects with a total financial volume of more than CZK 53 million, including CZK 5 million of investment funds, were solved at CMV in 2023.

As in previous years, scientists, researchers and other CMV employees actively participated in science-popularization events such as the Brno Festival of Science and Technology, Night of Scientists, Electron Microscopy Days, etc.

1.4 Mission, vision and strategic goals of BUT

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

The long-term goal of the management is to be a strong quality university, able to compete with major universities in Europe and the world, especially in the field of educational, creative and artistic activities. The achievability of the ambitious goals and the feasibility of the presented instruments 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 technically diversified university with a strong position among world universities in terms of international competitiveness of graduates, reputation and percentile position in international rankings;
- a renowned technical university creating conditions for the admission and study of foreign students studying in English and in international study programmes, with a target of at least 8% in 2030;
- an educational institution with an international team of educators and scientists significantly influencing technological progress;
- an institution that creates and supports culture and social events in a local as well as international context;
- a scientific research organisation defining research, development and innovation trends;
- a platform for establishing successful start-up and spin-off companies;
- partner for the creation and development of industrial companies.

At the BUT, not only the staff providing quality educational and research, creative and artistic activities, but also other employees who organizationally ensure the main activities as well as all other supporting and service activities for the benefit of the University have and will have their firm place. The BUT will create space for all people who are capable of profiling themselves in any of these activities and who will be the mainstays of their teams. The BUT is made up of people who share the same values and traditions and who are linked to its vision and brand.

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

BUT Goals 2021+

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

- Priority objective 1: Develop competences 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: Increase the efficiency and quality of doctoral studies
- Priority objective 4: Strengthen strategic management and effective use of research and development capacities at the BUT
- Priority objective 5: Build capacity for strategic management of BUT
- Priority Goal 6: Reduce the administrative burden on BUT staff to enable them to fully pursue their mission

The main goal of the BUT is to guarantee high quality of educational and scientific activities, to increase the quality of research so that the BUT sets scientific trends and attracts excellent teachers and researchers, and to offer such expertise and authority that will be useful and visible within the region, the Czech Republic and the world.

To improve the performance of the BUT in the evaluation criteria for which the BUT is (and especially will be) allocated funds.

The fulfilment of these objectives will be indicated, inter alia, by a shift in the relevant university rankings.

BUT will:

- a technical university of first choice offering a valuable higher education based on a synergy of technical, economic and artistic disciplines with a significant proportion of teaching in English;
- a prestigious research university with high-quality and internationally respected research teams that can set international research trends, attract significant industrial resources and prestigious projects;
- a homogeneous but diverse institution with a high institutional culture;
- a workplace that will create an attractive free environment for research, development and educational activities for the academic community and that will provide excellent administrative and technical services to the staff.

BUT will actively participate in the changes of the evaluation criteria within the Czech Republic and their modification. It will promote the appreciation of the importance of technical universities for the development of the Czech Republic.

The BUT and each of the faculties and university institutes of the BUT will have clearly defined research priorities and developed cooperation with practice. These will be regularly evaluated and their plans adjusted in response to public demand transformed into public competitions to support research projects and the needs of enterprises using the system of performance evaluation of academic and scientific staff.

In order to strengthen the international credibility of studies at the BUT, and thus to potentially increase the interest of foreign students in studying at the BUT, the faculties and institutes of the BUT will seek the possibility of accreditation of some study programmes by recognised foreign accreditation agencies.

The BUT will take further measures to renew, use and share the built infrastructures and their wider inclusion in the Roadmap of large infrastructures in the Czech Republic. Establish rules for the acquisition of new, high-cost facilities in line with the policy of open access to these capacities within the international research area.

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

BUT will put emphasis on branding, i.e. on connecting employees, students and graduates with the BUT brand and the BUT position. The BUT will also strengthen the awareness of the BUT brand outside the Czech Republic, in Europe and worldwide.

BUT is aware of its own socio-cultural and environmental responsibility and will continue to strengthen and develop it. The BUT will continue all its activities in accordance with the signed Challenge to help reduce emissions in the city of Brno.

1.5 Achieved goals within the Strategic Plan of the BUT for the year 2023

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

The BUT fulfilled this goal through activities aimed at developing the competences of academic staff in the field of teaching and curriculum development, as well as at increasing the language competences of both academic and non-academic staff.

At the beginning of 2023, a Training and Development Plan on HRS4R/HR Award, Gender Equality and Social Security was created at the BUT, which includes training in dealing with negative phenomena and gender issues. At the same time, this document supported the inclusion of these important topics in the internal training plan, which covers a wide range of areas such as languages, pedagogy, IT and work-life balance, with courses adapted to the work roles of staff and PhD students.

Activities leading to strengthening the link between studies and practice and preparing students for future employment were an integral part of this goal. Specifically, this involved providing material and financial support and facilities to promising student teams and societies and their activities. To name but a few, the entrepreneurship of students was promoted in the framework of the project Come Entrepreneurship! This is part of the contriBUTe innovation and entrepreneurship ecosystem and is related to the university-wide subject Development and Implementation of Entrepreneurial Ideas and the BUT Student Entrepreneurship Award competition – see chapter 9.6.

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

This objective is being pursued through the development of distance learning, online learning and blended learning tools. Seminars and training sessions for academic staff have been held on these issues. These were held both at central level and at some faculties in specific forms according to the particular focus of flexible forms of education.

Within full-time teaching, or the construction of full-time study programmes, there is an increasing number of courses that use project-based learning, teamwork and soft skills development.

The teaching approaches and elements mentioned above are characteristic of the newly accredited (in 2023) Bachelor's degree programme in Structural Engineering at FME.

FME has also created a Master's programme in Advanced Automotive Engineering, which will provide knowledge of theory, but also the opportunity to try out simulation, modelling, construction or diagnostics of motor vehicles and powertrains. Graduates will become experts in smart mobility and, thanks to the skills they have acquired, will easily join the automotive sector.

Another brand new Master's programme in Logistics Analytics has been accredited in English and will offer practical experience and study abroad. This is a double degree program at FME with a foreign partner in Norway. Its graduates will receive two diplomas.

The unique Master's degree programme Automotive Electronics and Electromobility has been accredited at FEEC. It is the first programme in the Czech Republic that focuses on comprehensive and detailed knowledge of vehicle electronics.

FCE has newly accredited a Bachelor's degree programme in Environmental Engineering, which will offer students theoretical and practical teaching in laboratories and professional practices. It combines technical, science and humanities education and will teach learners to respond to current challenges related to environmental engineering.

The area of postgraduate education cannot be overlooked either, namely the establishment of a professionally oriented Master of Science in Cybersecurity (proCyber) lifelong learning programme. The programme was created at FEEC in cooperation with FIT and is designed for employees of companies and individuals who want to educate themselves in the field of cybersecurity. Those interested will learn the latest news in the field, supplement their professional knowledge and obtain micro-certificates that they can apply to their employers. Classes will be primarily distance learning and the only requirement for admission is a successfully completed bachelor's degree. According to the NCIB, there is a shortage of cyber experts in the Czech Republic and this new programme aims to fill the gap in the market.

Two other lifelong learning programmes designed primarily for practitioners were established at FCE. This is the Master of Science in Civil Engineering programme, which focuses on professional postgraduate education in civil engineering and combines technical knowledge with managerial knowledge. The new programme responds to the long-term trend of a shortage of civil engineering professionals in the Czech and foreign markets and strong demand from both the private and public sectors.

Another such postgraduate education option is the Master of Science in Environmental Engineering programme, which offers professional postgraduate education in environmental engineering. The study includes technical education and links it to the environment, ecology, circular economy, but also law, economics or project management.

BUT emphasizes the promotion of accessibility of education within the Alfons Counselling Centre, which has expanded its services for students with specific needs and has seen increased interest. The main activities included audiovisual recordings of lectures, text adaptations and language revisions of texts. These activities helped learners with specific needs to overcome barriers and achieve better results.

The BUT Student Support Centre provides support in reconciling studies with family and working life. In 2023, 17 courses were held on the topics of time management, stress management, assertive communication and habit building. Centre staff received further training in crisis intervention and working with trauma. The centre also helped with the social integration of PhD students.

In the area of access to education, the BUT expanded the range of courses offered within the University of the Third Age (U3V). The content and topics of the new courses respond to current issues and it can be stated that there has been a great interest among seniors. The U3V became the first institution ever to attract an expert, Tomáš Pribyl, for a lecture series on space research. In the spring, an international meeting of the members of the European Federation of Older Students (EFOS) was held on the education of seniors in the field of ecology and science.

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

Increasing the efficiency and quality of doctoral studies is a topic that will be significantly affected by the expected amendment to the Higher Education Act, with a focus on the reform of doctoral studies.

In order to verify the status, parameters and quality of doctoral studies, an evaluation of doctoral studies was initiated in 2023 and will continue in parallel with the research evaluation in 2024. The evaluation included an analysis of graduate employment, job advertising, relevant BUT regulations, as well as interviews with supervisors, focus groups with doctoral students and questionnaire surveys among students and supervisors. Preparations were also made for the self-evaluation of the programmes, with a deadline for supervisors of 15 January 2024. The self-evaluation reports will serve as a basis for the evaluation of the committees with the participation of foreign experts.

In 2023, the preparation of a unified methodology for the unification of the doctoral study agenda in the framework of the transition to TEACHER began. The intention is to create a central methodology for the implementation of doctoral study programmes, which will be implemented in the IS.

In order to strengthen the quality, openness and internationalisation of doctoral studies at the faculties and institutes of the BUT, support for language proofreading of dissertations in AJ and related support for expert opponents from foreign universities was implemented. The latter has the secondary aim of increasing the involvement of supervisors in the dual supervision institute (COTUTELLE), including the involvement of foreign opponents and supervisors.

The social integration of PhD students is also an integral part of this objective, with projects and workshops on mentoring topics in the form of a mentoring programme for PhD students, as well as science education, project opportunities and management minima in line with the HR Award. In addition, a pilot Ph.D. programme was conducted at the BUT. Day for PhD students across the faculties and institutes of the BUT. It included information on the status of Ph.D. learners, balancing studies and personal life, the amendment to the Higher Education Act and grant opportunities. Based on the questionnaire survey, suggestions for student development and VVP were added to the Education and Development Plan. A Handbook on work-life balance has been produced and is available in both English and Czech. In addition to the theme of work-life balance, the topics of gender, gender in research and social security were also incorporated into the training activities.

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

An important step in achieving the goal of strategic management of the University and effective use of R&D capacities at the BUT was the establishment of the International Scientific Council of the BUT. The Council serves as a key independent advisory body of the University, especially in the field of its strategic development and quality improvement of scientific, development, innovation and educational activities. It consists of a total of eleven international experts covering the main scientific fields of the faculties and institutes of the BUT. The criteria for their selection were, in addition to scientific expertise, managerial experience in top management of European and other foreign universities.

In accordance with the principles of The Agreement on Reforming Research Assessment, to which the BUT is a signatory since 2022, an internal evaluation of science and artistic activities at the BUT was carried out in 2023. The evaluation was carried out at the level of individual scientific areas and, in the case of art, at the level of artistic segments. It was based on benchmarking with European technical universities and other major universities as well as on self-evaluation. All internal evaluation materials were then submitted to the International Science Council. Its members personally visited individual faculties and university institutes of the BUT and provided feedback on the evaluation methodology.

In order to refine and optimize the processes and tools for recording the results of creative activities, a new Methodology for recording and reporting the results of R&D&I at the BUT was introduced. At the same time, new systems of control and approval of records of R&D&I results in the BUT information system were introduced. Furthermore, preparatory work for the implementation of new R&D Results and Projects modules was initiated. In cooperation with the working groups, documents were prepared for both modules, which summarise the requirements for the new modules and will be the basis for their development.

As one of the motivational tools, recognition of excellent scientific and artistic outputs was introduced in the form of the Rector's Awards for Outstanding Scientific Achievements and Artistic Outputs.

The Open Science portal has been published on the BUT website to inform BUT staff and students and the public about all areas and services related to the implementation of Open Science at BUT. The Central Library has also organised several seminars on this topic, for example on working with research data. A tool for recording research data has been introduced in the BUT information system.

Priority objective 5: Build capacity for strategic management of BUT

Within the framework of capacity building for strategic management at the BUT, activities were carried out including the creation of "institutional" documents (the cizelace of these activities), organizational changes at the Rector's Office, and the related setup of change management of the organizational structure. Descriptions of processes (main process areas – domain areas and process areas) at the University were created and an analysis of the University's performance indicators in the field of science, research and creative and artistic activities was developed.

In addition, the necessary system settings have been put in place at the strategic management level in the area of budgeting, for example in the allocation of the DKRVO Institutional Support, which will be crucial to obtaining a quality rating in modules M4 and M5.

The BUT has successfully completed the EUA/IEP international evaluation in cooperation with the European University Association (EUA), an external quality assessor. The evaluators conducted countless interviews with the management of the university, faculties and institutes of the BUT, as well as with staff and students. The result is a final report that focuses on the institution as a whole, covering the areas of management and decision-making, quality, teaching and learning, creative activity or internationalisation.

In order to support the quality of strategic management, the BUT implemented workshops and trainings for faculty deans and unit directors with the aim of improving strategic management, strategic decision-making and the development of plans for the implementation of strategic intent.

Within the newly formed Development and Analysis Department, an analysis unit is being formed to integrate analytical activities to support top management decision-making, for reporting purposes and for the production of "institutional" documents (in cooperation with the Strategy Department). In 2023, the analytical unit was strengthened by the addition of a staff member specialising in sociological research issues, which has contributed to increasing the quality of the data collected (mainly through in-house surveys), and also increased the integration of reporting activities (both internally and externally to the BUT).

Priority Goal 6: Reduce the administrative burden on BUT staff to enable them to fully pursue their mission

The completed convergence of the FIT study information system into the central study IS of the BUT contributed significantly to the fulfilment of this goal. As part of this convergence, the functional support of the central information system of the BUT was significantly expanded and a number of new modules were created in the web environment. The final work on the convergence of the FCE study information system to the central BUT information system was also in progress, thus definitively unifying the study information system at the BUT. This activity benefited significantly from the completed FIT convergence.

In 2023, work began on the improvement of the economic and personnel information system, the upgrade of the intelligent building management system BMS (Building Management System) was completed, and after years, the electronic order approval was completed and introduced, which also fully ensured the process of computerization of purchasing consumer goods in the "Shopping House" application. For the next year, an electronic payment system is prepared, which will allow making and receiving payments for conferences, educational programs and other services, as well as for books published by, for example, the VUTIUM Publishing House or promotional items of the BUT.

After an unexpected reduction in the capacity availability of cloud data storage by Google and Microsoft, the BUT had to provide an adequate solution. To support decision-making, a management information system based on data cubes is gradually being expanded, which allows to compile information in the required semantics from data stored in databases.

Digitalisation brings with it the increasingly pressing issue of cyber security. That is why the BUT has created a Cybersecurity Department and prepared draft internal standards related to this issue.

1.6 Activities of the Academic Senate of the Brno University of Technology

The Academic Senate of the BUT (AS) held nine regular and one retreat sessions in 2023. After the end of the covid-19 pandemic, all meetings of the AS in 2023 were held in attendance, at standard intervals of once every four weeks. The meetings of the AS were complemented by the meetings of the working committees of the Senate – economic, legislative, creative activity and pedagogical committees, which discussed relevant documents, commented on them and adopted resolutions or recommendations on the proposals submitted. At the beginning of the year, the AS discussed the EULiST Mission document, the approval of which was based on the request of the EULiST consortium of universities. The AS endorsed the resolution adopted by the FA AS in the context of the ongoing (mainly media) debate on funding, autonomy and self-governance of HEIs and adopted a resolution drawing attention to the long-term fundamental underfunding of public universities compared to other EU countries.

As every year, the AS discussed and approved the Annual Report on the Activities and the Annual Report on the Management of the BUT for the previous year 2022, discussed and approved the Rules for the Formation of the Budget and subsequently the BUT Budget for 2023. At the end of the year, the AS approved Supplement No. 8 to the Organizational Regulations of the Rector's Office of the BUT and in this context expressed its positive opinion on the Rector's proposals to appoint two new Vice-Rectors. All AS meetings (except for the AS retreat in Valcea) included information from the BUT management, the Council of Universities (CUC) and the AS student chamber.

The AS Economic Commission, which has 22 members, met thirteen times in 2023, two of which were held online via MS Teams. The other working committees of the AS discussed the submitted proposals and adopted their resolutions per rollam; all working committees held their meetings during the AS retreat.

The Economic Commission (EC) regularly discusses property issues and strategic topics with economic implications. In 2023, the EC recommended to the AS for approval Amendment No. 1 to the BUT Salary Regulations and Amendment No. 1 to the BUT Tender Procedure Regulations. An important topic of the EC's deliberations was the BUT Budget Rules for 2023. In the drafting of the rules, the emphasis was on the projection of the BUT rules into the specific conditions of the BUT in relation to its strategic goals. The Budget Rules were discussed from the perspective of the BUT's year-to-year stability, following the update of the BUT Management Rules. The EC, with the participation of the BUT management, discussed in detail the comments of the AS members on individual articles of the Management Rules.

The Legislative Commission (LC) dealt with legislative proposals; at the beginning of the year it discussed Supplement No. 1 to the Code of Ethics of the BUT and during the AS exit meeting discussed and recommended to the AS for approval in particular Supplement No. 2 to the Regulations of the BUT Study Programmes, Supplement No. 7 to the Organisational Regulations of the BUT Rectorate, new versions of the Statute of the FFA and the Organisational Regulations of the CVIS, the text of which was supported by the audit findings, extensive analytical (consultation) work and the explanatory report. At the end of the year, the LC recommended the new version of the FA Statutes to the AS for approval.

In connection with the activities of the EC and the LC, it is worth mentioning the active participation of the AS members representing the BUT on the ground of the SCC. These representatives of the BUT were active mainly in the areas of strategic development of universities, economic, legislative, artistic and scientific activities. Thanks to the long-standing prestige of the BUT built on the ground of the REC, it was again possible to involve prominent representatives of the REC in the deliberations of the AS retreat, thus giving it a thematically supra-university overlap. The BUT representatives on the ASC consistently presented suggestions from the BUT academic community for consideration by the ASC bodies and fed back regularly to the university academic community through the BUT and faculty academic senates.

The Commission for Creative Activities (CCA) discussed per rollam without comments the proposal of the new Scientific Council of CEITEC BUT and in cooperation with the EC dealt with the issue of funding of science, research and creative activities, especially the rules of distribution of IP DKRVO. The issues of this Commission from 2021 onwards also include internationalisation, on which the working session was held mainly in the framework of the retreat. During the away session, the Commission discussed the University's participation in various university associations and other international activities with the participation of the Vice-Rector for Internationalisation and discussed the Internal Evaluation of the BUT with regard to future evaluation under the M17+ methodology.

The Pedagogical Commission (PC) discussed proposals related to study issues – i.e. rules for admissions and conditions for admission to study at higher education institutes. Furthermore, the PK discussed the evaluation of the quality of teaching in the respective study programmes submitted to the AS by the Rector of the BUT in the form of final reports prepared at the HEIs. The SC also dealt with the issue of course evaluation and the material related to the unification of the study agenda prepared by the FEC, which also proposed possible changes to the Study and Examination Regulations of the BUT.

Since the October meeting, the AS has been working on the preparation of the elections for the new term of office, which

was postponed from November 2023 to November 2026 to June 2024 to June 2027 as a result of the covid-19 pandemic using §7 of Act No. 188/2020 Coll. At the November meeting, the AS Chair announced to the Senate members that he had been elected to the position of Dean of FIT for the term January 2024 to January 2028, and due to the incompatibility of this position with that of an AS member, the AS will need to elect a new Chair by the end of its term. For this reason, and also due to the previously announced resignation of the student representative on the AS from FIT, the AS has called for by-elections at FIT in both chambers – i.e. KAP and SK of the AS.

At the November meeting of the AS, new representatives of the BUT were also delegated to the Council of Universities for the new term of office from January 2024 to January 2026. At the December meeting, the President of the AS, following the ongoing discussion at the previous two meetings, acquainted the members of the AS with a preliminary draft of the Schedule of Elections to the AS of the BUT for the new term of office from June 2024 to June 2027, in which the date of the announcement of elections to the AS of the BUT for the new term of office was set for the January meeting of the AS. In this context, the AS also adopted resolutions inviting the AS Faculties and the Directors of the HEIs and other units to announce their representatives to the All-School Election Committee of the BUT and the Election Committee for the election of representatives of the HEIs and other units of the BUT to the AS of the BUT by the AS meeting held in February 2024, so that they could be announced at the January meeting in accordance with the tentative schedule of the Election Committee. In addition, in connection with the previously announced resignation of the AS President as of 3 January 2024, the AS members adopted a resolution including the election of a new AS President in the agenda of the AS meeting to be held in January 2024.

Student Chamber AS BUT

In 2023, the Student Chamber of the Academic Senate of the BUT (SK AS) continued to actively represent students and their interests at the BUT. At the beginning of the year, SK AS at its all-day working meeting set out its priorities for the coming year, updated the rules of the Internal Student Support Fund and at the same time, following the model of the BUT staff newsletter, initiated the introduction of the newsletter "BUTs'up? Newsletter for BUT students". This email newsletter, issued on a monthly basis, has quickly become one of SK AS's important communication channels towards students. In 2023, SK AS continued to hold regular monthly meetings with student representatives of faculty senates, student organisations and creative teams at the BUT. Before the start of the winter semester, SK AS representatives participated in the Pre-School event, where they presented the activities of SK AS to future and current BUT students in both rounds of the event.

With an interest in personally connecting students with events at the university and national level, SK AS organized a meeting of students with the director of the BUT in February, followed by a meeting of students with the rector of the BUT and a discussion meeting with the then Minister for European Affairs Mikuláš Bek in April and a meeting of students with the Minister of Finance Zbyněk Stanjura in October. In May, representatives of SK AS and creative teams at the BUT had the opportunity to present their activities during the visit of Prime Minister Petr Fiala.

Other pillars of SK AS activities were the organization and support of academic and social events for students. In the summer semester, SK AS was involved in coordinating the participation of the BUT at the Brno Majáles, the BUT was represented in particular by the student of the Institute of Science and Technology Martin Sedláček and the student of the Faculty of Economics Patrícia Janigová, who also won the title of Queen of the Brno Majáles. In November, SK AS organized the Ph.D. Day to raise awareness of doctoral students at the BUT about the opportunities offered by the university. In the form of the Internal Student Support Fund, SK AS recognized the activities of active students at the BUT. In the first round, SK AS supported 9 out of 15 proposals received. Among the awarded activities were, for example, the operation of student clubs at FFA and FIT, the BSEC engineering competition, the operation of the student workshop, Running on 53 and others. In the fall, SK AS supported a total of 13 out of 26 proposals received in the second round of IFSP. The top-ranked proposals were Music from the FEC, activities of the BUT hockey team, and Engineering Stairs 2023. SK AS also supported activities organized at the faculty levels, such as the operation of the student club at FIT, information sessions and seminars at FBM, the FFA Gala Ball, the Bohuslav Fuchs Awards, etc.

Representatives of the SK AS actively educated themselves in the topics of university self-government, together with student representatives of faculty senates attended the Conference of Academic Senators in April. In September, SK AS representatives participated in the conference of the Ministry of Education Days of Educational Activities in Prague with the subtitle: Student First. During the Quality Assessment in Higher Education Conference, the Chair of SK AS spoke in a panel discussion.

One of the priority interests of SK AS is cooperation at national and international level. Last year, a CRP project was coordinated at the BUT to promote the interest of university students in participating in university self-government and developing their professional skills and competences. The project was implemented in cooperation with MUNI and with the involvement of the Student Chamber of the RSC. As part of this activity, SK AS, among other things, actively participated in the organisation of round tables and expert lectures for student senators from all over the country on

the topic of the budget of higher education, on 13 October at the University of Technology and on 27 October at the CTU. The cooperation of the BUT with the CAB has also been reflected in the schedule of CAB meetings, with two of the ten CAB meetings in 2023, one regular and one retreat in December, being held at the BUT. At the international level, the SK AS representatives were involved in activities within the EULiST University Alliance. Student delegates from the BUT participated in the EULiST General Assembly in Athens and the EULiST Staff Week in Bratislava. At the same time, thanks to the student delegates, the BUT holds the position of vice-chair in the EULiST Student Board.

SK AS is sincerely interested in social events. Right at the beginning of the year, SK AS called for participation in the presidential elections, and its representatives participated in the Jan Opletal Awards in November. As part of the commemorative events on 17 November in Brno on Svobody Square, SK AS representatives, together with representatives of other Brno universities, laid wreaths at the Plague Column to commemorate 17 November. In Prague, SK AS representatives commemorated the events of November by laying wreaths at Hlávka College, marching and commemorating in Žitná Street and participating in a commemorative event in Albertov. The SK AS representative also actively participated in crisis communication after the tragic December events at the Faculty of Arts and participated in the Security Committee meeting to set up measures and communication in case of emergencies. SK AS was also involved in securing volunteers for the Pie for Hospice fundraiser, to which she also made a financial contribution.

In December, SK AS organized the seventh edition of the BUT Ball, this time with the subtitle "When technology dances in the world of magic and magic". The Ball was traditionally held at the BVV and was attended by more than 3,600 people. Last year's edition of the BUT Ball (2022) was awarded third place in the Czech Event Association's Annual Awards in the Public Relations Events category and placed in the Top 5 in the Entertainment and Show Business category.

SK AS in 2023 has demonstrated its ongoing commitment to supporting and representing BUT learners. It has communicated intensively on the themes of student life, mental health support and opportunities for BUT learners.

Away Session of the AS held on 27 June – 29 June 2023

AS traditionally held an away meeting at the hotel Zámek Valeč. The aim of the retreat was to discuss with the participation of the BUT management and representatives of the RVS essential and topical topics that the AS for time reasons did not have time to discuss during the year. Rector Ladislav Janíček together with Vice-Rectors Miroslav Doupovec, Martin Weiter and Iveta Šimberová, Bursar Daniela Němcová and Chancellor Kamil Gregorek presented interesting information from the areas within the competence of the HEI management.

The key points of the retreat were in particular the speech of Rector Ladislav Janicek, who introduced the BUT AS in detail about the strategic plans of the university, the presentations of the BUT management and the following discussions of the AS members with the BUT management concerning the areas of economy, science and research and internationalization. Last but not least, the standard AS meeting concerning the approval of the budgets of the non-faculty components of the BUT, including the consolidated budget and the medium-term outlook for 2024–2025, which were discussed in detail by the AS EC in advance and recommended to the AS for approval. Furthermore, it is worth mentioning the AS meeting with the BUT management on the submitted draft Amendment No. 7 to the Organizational Regulations of the BUT Rectorate, following the ongoing organizational changes within the BUT Rectorate. Part of the agenda of the AS retreat was also related to the area of pedagogy and legislation, where information was presented on the preparation of changes to the BUT internal regulations related to the study area. Anna Kruljacová, Chairperson of the AS SK, gave detailed information on the activities of the AS SK and on the issues of study and student affairs.

A significant benefit of the retreat was the participation of representatives of the BUT in the RVS, who are also members of the AS, and especially the representative participation of guests from the RVS, who despite their workload, actively participated in the retreat with interest and through their presentation informed the members of the AS about current events in the field of RVS. Lenka Valová, the Chairperson of the Economic Commission of the RCU, attended the meeting in person and presented detailed information on the activities of the Economic Commission of the RCU, including wage analyses of universities. Within the framework of the distance connection, the Vice-Chairman of the Scientific Commission of the RVS Tomáš Kašparovský (with the distance participation of the Chair of the Scientific Commission of the RVS Vlasta Radová) informed about the activities of the Scientific Commission of the RVS. Marek Hodulík, Chairman of the Legislative Commission of the RSC, presented detailed information on legislation. The activities of the Student Chamber of the RVS were presented by the Vice-Chairman of the Student Chamber of the RVS Martin Horváth (representative of the BUT students in the RVS SK). The retreat again proved to be very beneficial for mutual information of the representatives of the academic community in the AS, the BUT management and invited guests. The retreat also included a standard AS meeting, where relevant resolutions were adopted in relation to the areas discussed and the proposals submitted to the AS for consideration.

2 Basic information about the university

2.1 The full name of the college, commonly used abbreviation, the location of the college and all units

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

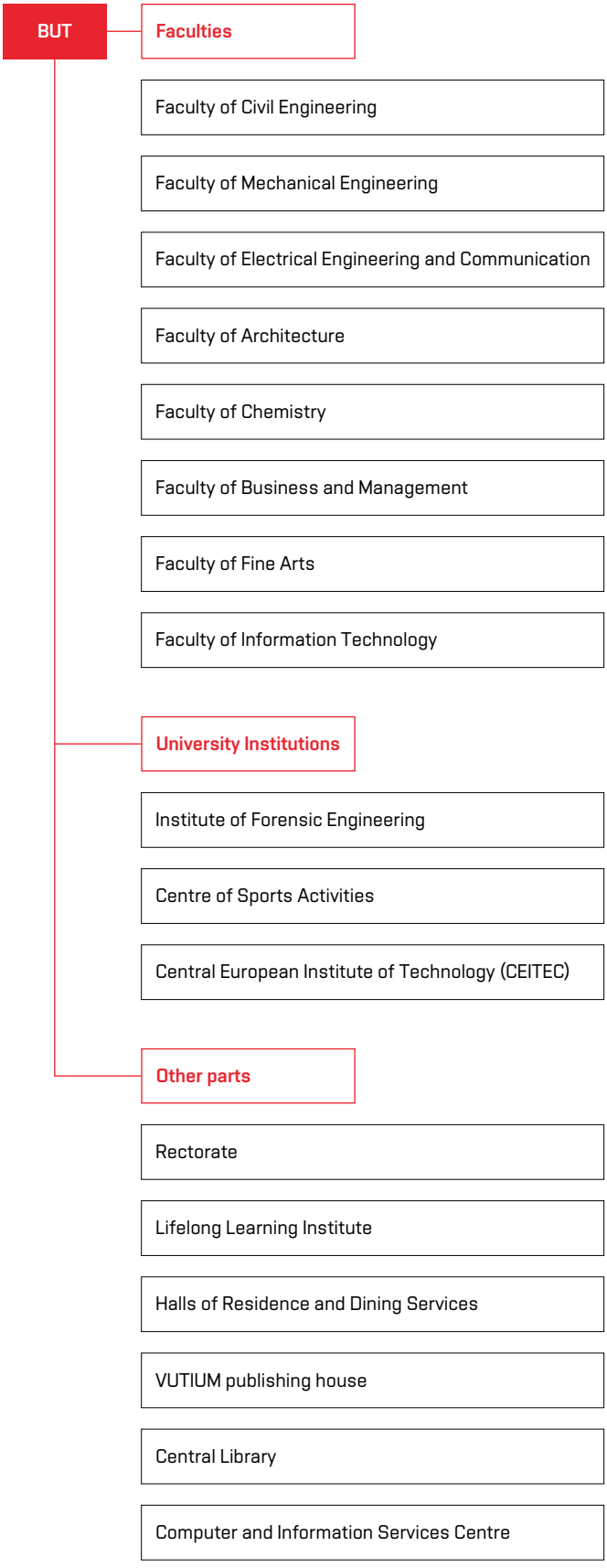
Institute of Forensic Engineering BUT
IFE
Purkyňova 464/118, 612 00 Brno
www.usi.vutbr.cz

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

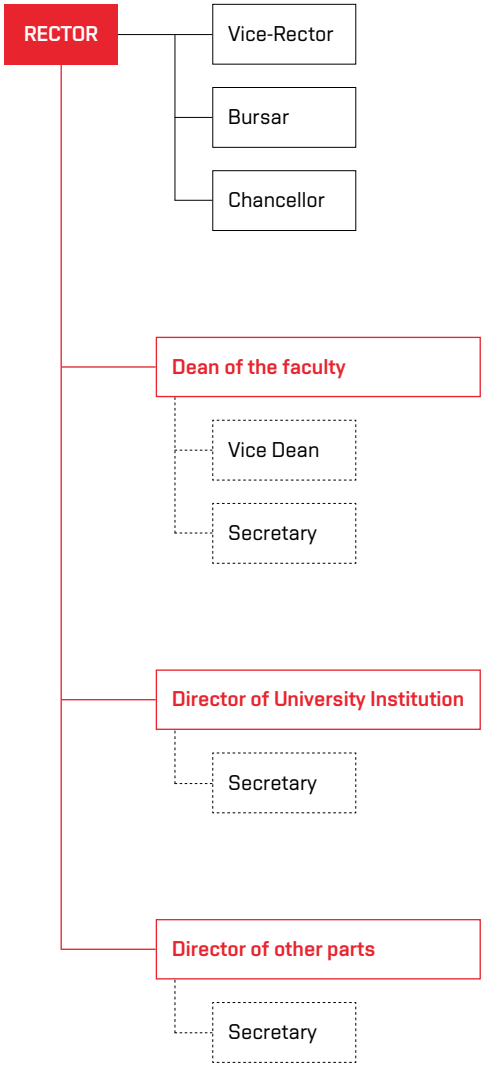
Central European Institute of Technology BUT
CEITEC
Purkyňova 656/123, 612 00 Brno
www.ceitec.cz

2.2 Organisational chart of the university

Organizational chart of BUT



Management structure of BUT



2.3 Composition of the Scientific Council, the Administrative Board, the Academic Senate and other bodies of the University

Scientific Council of the BUT

Chairman
(Date of appointment)

- doc. Ing. Ladislav Janíček, Ph.D., MBA, LL.M.
  (15. 3. 2022)

Members
(Date of appointment))

- prof. RNDr. Vladimír Aubrecht, CSc.
  (15. 3. 2022)
- prof. Ing. Miroslav Bajer, CSc.
  (15. 3. 2022)
- doc. Ing. Vojtěch Bartoš, Ph.D.
  (15. 3. 2022)
- doc. MgA. Filip Cenek
  (15. 3. 2022)
- prof. Ing. Libor Čapek, Ph.D.
  (15. 3. 2022)
- prof. RNDr. Miroslav Doupovec, CSc.
  (15. 3. 2022)
- prof. Ing. Rostislav Drochytka, CSc., MBA, dr. h. c.
  (15. 3. 2022)
- Ing. Karel Endlicher
  (15. 3. 2022)
- prof. akad. sochař Michal Gabriel
  (12. 4. 2022)
- prof. Ing. Martin Hartl, Ph.D.
  (15. 3. 2022)
- doc. Ing. Jiří Hlinka, Ph.D.
  (15. 3. 2022)
- prof. PeadDr. Radek Horáček, Ph.D.
  (15. 3. 2022)
- doc. MgA. Milan Houser
  (15. 3. 2022)
- prof. Mgr. Tomáš Kašparovský, Ph.D.
  (7. 11. 2022)
- Ing. Jaroslav Klíma
  (15. 3. 2022)
- prof. Ing. Alena Kocmanová, Ph.D.
  (7. 11. 2022)
- doc. Ing. Karel Kouřil, Ph.D.
  (12. 4. 2022)
- prof. MUDr. Milena Králíčková, Ph.D.
  (15. 3. 2022)
- prof. RNDr. Ivana Márová, CSc.
  (15. 3. 2022)
- prof. Ing. Alois Materna
  (15. 3. 2022)
- Ing. Ilona Müllerová, DrSc.
  (15. 3. 2022)
- Ing. Eduard Palíšek, Ph.D., MBA
  (15. 3. 2022)
- doc. Ing. Jan Pěnčík, Ph.D.
  (15. 3. 2022)
- doc. RNDr. Vojtěch Petráček, CSc.
  (15. 3. 2022)
- prof. JUDr. Radim Polčák, Ph.D.
  (15. 3. 2022)
- prof. Ing. Karel Pospíšil, Ph.D., LL.M.
  (15. 3. 2022)
- prof. Ing. Milan Pospíšil, CSc.
  (15. 3. 2022)
- prof. Ing. Ivo Provazník, Ph.D.
  (15. 3. 2022)
- prof. Dr. Ing. Zbyněk Raida
  (15. 3. 2022)
- prof. Ing. Petr Sáha, CSc.
  (15. 3. 2022)
- prof. Ing. arch. Michal Sedláček
  (15. 3. 2022)
- prof. Ing. Lukáš Sekanina, Ph.D.
  (15. 3. 2022)
- prof. Ing. Antonín Slaný, CSc.
  (15. 3. 2022)
- prof. RNDr. Václav Snášel, CSc.
  (15. 3. 2022)
- prof. Ing. Petr Stehlík, CSc., dr. h. c
  (15. 3. 2022)
- RNDr. Petr Střelec
  (15. 3. 2022)
- Ing. arch. Radek Suchánek, Ph.D.
  (14. 12. 2022)
- prof. RNDr. Tomáš Šikola, CSc.
  (15. 3. 2022)
- doc. PhDr. Iveta Šimberová, Ph.D.
  (15. 3. 2022)
- prof. Ing. arch. Vladimír Šlapeta, DrSc. (15. 3. 2022)
- prof. Ing. Josef Štětina
  (15. 3. 2022)
- prof. Ing. Pavel Václavek, Ph.D.
  (15. 3. 2022)
- prof. Ing. Michal Veselý, CSc.
  (15. 3. 2022)
- prof. MVDr. Lenka Vorlová, Ph.D.
  (15. 3. 2022)
- prof. Ing. Radimír Vrba, CSc.
  (15. 3. 2022)
- prof. Ing. Martin Weiter, Ph.D.
  (15. 3. 2022)
- prof. Dr. Ing. Pavel Zemčík, dr. h. c.
  (15. 3. 2022)

Board of Directors of the BUT

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
  (2. 8. 2021–2. 8. 2027)
- Ing. Vladimír Dlouhý, CSc., MBA
  (21. 5. 2018–21. 5. 2024)
- Mgr. Jan Grolich
  (6. 5. 2021–6. 5. 2027)
- Ing. Jaroslav Klíma
  (21. 5. 2018–21. 5. 2024)
- Ing. Miloslav Kopeček
  (21. 5. 2018–21. 5. 2024)
- PhDr. Miroslava Kopicová
  (6. 5. 2021–6. 5. 2027)
- František Mikš
  (1. 9. 2022–1. 9. 2028)
- doc. JUDr. PhDr. Petr MIsna, Ph.D.
  (6. 5. 2021–6. 5. 2027)
- Mgr. Stanislav Moša
  (3. 6. 2019–3. 6. 2025)
- Ing. Jiří Nekovář, Ph.D.
  (2. 8. 2021–2. 8. 2027)
- Ing. Eduard Palíšek, Ph.D., MBA
  (21. 5. 2018–21. 5. 2024)
- Ing. Petr Vokřál
  (21. 5. 2018–21. 5. 2024)
- doc. Ing. Jiří Volf, CSc.
  (3. 6. 2019–3. 6. 2025)
- prof. MUDr. Jiří Vorlíček, CSc., dr. h. c.
  (2. 8. 2021–2. 8. 2027)

Disciplinary Commission of the BUT

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

Internal Evaluation Board

Chairman

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

Members

- prof. Ing. Tomáš Hruška, CSc.
  (until 15. 5. 2023)
- prof. Ing. Jiří Burša, Ph.D.
  (until 15. 5. 2023)
- prof. RNDr. Miroslav Doupovec, CSc., dr. h. c.
- prof. Ing. Eva Gescheidtová, CSc.
  (until 15. 5. 2023)
- prof. Ing. Lubomír Grmela, CSc.
  (until 15. 5. 2023)
- doc. Dr. Ing. Petr Hanáček
- prof. Ing. Jan Jandora, Ph.D.
- Ing. Anna Kruljacová, M.Sc.
- prof. Ing. Alois Materna, CSc., MBA
  (until 28. 11. 2023)
- 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.
- prof. Ing. Jarmila Dědková, CSc.
  (from 16. 5. 2023)
- Ing. Bohuslav Křena, Ph.D.
  (from 16. 5. 2023)
- doc. Ing. Tomáš Opravil, Ph.D.
  (from 16. 5. 2023)
- doc. Ing. Miroslav Steinbauer, Ph.D.
  (from 16. 5. 2023)

Academic Senate of the Brno University of Technology – term of office June 2021 to June 2024

Chairman

- doc. Dr. Ing. Petr Hanáček

Vice-Presidents

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

Chamber of Academic Staff AS BUT

The Chair

- doc. Ing. Tomáš Opravil, Ph.D.

Members

- 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.
- prof. Ing. Martin Trunec, Dr.

Student Chamber AS BUT

President of the Chamber

- Ing. Anna Kruljacová, MSc.

Members

- Lukáš Brázdil
- Ing. Daniel Janík
- Ing. Petra Kosová (until 23. 11. 2023)
- Ing. Petr Liška (from 5. 12. 2023)
- Ing. Katarína Rovenská – Vice-Chairwoman
- Ing. Daniel Skřek
- Ing. arch. Adéla Šoborová
- Ing. Jan Zahrádka
- Mgr. et MgA. Martin Žák

Permanent guests in AS BUT

- Ing. Albert Bradáč, Ph.D. – IFE BUT
- PaedDr. Milan Slezáček – CESA VUT (until 11. 9. 2023)
- Mgr. Ing. Miloslav Pašek, MBA (from 12. 9. 2023)

Working Committee of the AS BUT in Brno

Legislative Commission

The Chair

- 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.

Students

- Ing. Petra Kosová (until 23. 11. 2023)
- Ing. Anna Kruljacová, MSc.
- Ing. Petr Liška (from 5. 12. 2023)
- Ing. Jan Zahrádka

Economic Commission

Chairman

- RNDr. Pavel Popela, Ph.D.

Members

- Ing. Petr Beneš, CSc.
- doc. Ing. arch. Ivo Boháč, Ph.D.
- 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.

Students

- Ing. Daniel Janík
- Ing. Anna Kruljacová, MSc.
- Ing. Katarína Rovenská
- Ing. Daniel Skřek
- Ing. arch. Adéla Šoborová
- Ing. Jan Zahrádka

Pedagogical Commission

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
- Ing. Petra Kosová (until 23. 11. 2023)
- Ing. Petr Liška (from 5. 12. 2023)
- Ing. Katarína Rovenská
- Ing. Daniel Skřek
- Ing. Jan Zahrádka

Commission for Creative Activities

Chairman

- prof. Ing. Josef Štětina, Ph.D.

Members

- 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
- doc. Ing. Miloslav Steinbauer, Ph.D.
- prof. Ing. Jiří Vala, CSc.

Students

- Ing. Petra Kosová (until 23. 11. 2023)
- Ing. Anna Kruljacová, MSc.
- Ing. Petr Liška (from 5. 12. 2023)
- Ing. Katarína Rovenská

2.4 Representation of Brno University of Technology in the representation of universities

Czech Rectors' Conference

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

Council of Higher Education Institutions (CHI)

Member of the Board of the RSC for BUT

– RNDr. Pavel Popela, Ph.D.

Member of the Assembly of the Council of Ministers for BUT

– Mgr. Bc. Helena Musilová

Members of the Assembly for the faculties of the BUT

– Ing. arch. Nicol Galeová (FA)
– Ing. Ivana Jakubová (FEEC)
– doc. Mgr. Richard Fajnor (FFA)
– Ing. Radek Kočí, Ph.D. (FIT)
– prof. 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 RVS

– Bc. Martin Horváth – delegate
– Ing. Katarína Rovenská – alternate

2.5 Changes to internal regulations in 2023

Regulations of the BUT Selection Procedures

– Amended by Amendment No 1 with effect from 1 April 2023

Wage Regulations of the BUT

– Amended by Amendment No 1 with effect from 1 April 2023

Regulations of Study Programmes of the BUT

– Amended by Amendment No 2 effective 14 July 2023

3 Study programmes, study organisation and educational activities

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

In 2023, the BUT used the learning outcomes methodology in the development of newly accredited study programmes. Within the framework of institutional accreditation, seven study programmes were newly approved for implementation in 2023, two other programmes were granted accreditation by the National Accreditation Authority and one study programme was extended by the National Accreditation Authority. In total, the BUT offers 184 study programmes.

3.2 Participation of the application sphere in the design and implementation of study programmes

In many study programmes at the BUT, experts from practice participate in teaching, especially in professionally oriented study programmes. Very often, experts from practice are members of committees for state final examinations and thesis defences. At the same time, the participation of external experts in committees is quite common.

Regular meetings with representatives of industrial partners are an essential part of involving experts from practice in the implementation of the study programme at FIT. FIT BUT chooses its partners carefully with an emphasis on a wide range of topics and on their high professional level. Discussions with industrial partners, in which the faculty focuses, among other things, on professional areas needed by the IT industry, help it to prepare future graduates properly for practice. The result is a strategy document with topics from practice that have their counterpart in the subjects taught at FIT BUT. There are a number of activities with regard to high expertise in which the faculty can intersect with companies. Experts from companies lead student projects (bachelor and master theses) with scientific potential. Together with companies, FIT BUT prepares professional seminars or supports the entrepreneurship of students.

At FCH, representatives of the application sphere also become patrons of study programmes. This cooperation is used in the implementation of internships, traineeships and thesis topics. The Faculty organises the traditional Chemistry Day promoting cooperation with the application sphere. The event is attended by representatives of major industrial partners and is intended for both students of the faculty and the general public, especially secondary school students who are facing the choice of their further studies. In 2023, the event focused mainly on the topics of graduates' professional application and reconciliation of the requirements of practice and study. Representatives of cooperating companies and enterprises are also members of both Bachelor's and Master's follow-up study programmes.

At FBM, the work of students often results in a real business plan. The faculty also organizes consulting workshops during which students solve real problems from companies. Collaboration in the field of applied research and teaching took place in 2023 with Adventure Venture Ltd. In addition, consulting workshops focused on business model development and brand development were implemented (companies Duncal technologies s.r.o., Biom Projekt, Stroje Polák s.r.o.). Companies are involved at the FBM not only in the teaching of professional study programmes, but also in the development of the Business Process Management Laboratory used in teaching (mainly within the professional study programme Process Management in cooperation with the company OR-CZ, spol. s r.o.). A number of student workshops on team projects were also held within the Marketing course. The students worked on these projects according to the assignments of individual companies, such as the Hospice of St. Elizabeth o.p.s., the student team strojLAB, BeachPUnk Team z.s. or Agapo, o.p.s. Furthermore, the faculty organizes workshops and internships for students in cooperation with companies.

A wide space for connecting students with practice is created by the Institute. In 2023, three expert lectures were held – Photovoltaics on apartment buildings by a representative of the company SOMI Applications and Services s.r.o., as well as Efficient management of apartment buildings and the third lecture was a combination of a workshop on valuation in which the expert office PKF Apogeo presented the expert content including specific expert opinions in the field of valuation of businesses and real estate to the students of both years of the follow-up Master's programme Real Estate Engineering and other present staff. The involvement of graduates of the Real Estate Engineering programme who are also already employees was also extraordinary. Practitioners are involved in teaching selected professional courses or acting as supervisors and thesis opponents.

The prestigious bachelor's degree programme Professional Pilot, sponsored by the Institute of Aviation, is held at the

FME, and its students routinely meet many experts from practice. In addition, the Department of Design at the FME BUT in cooperation with SMC Industrial Automation CZ s.r.o. teaches the elective course Avetics pneumobil racing. The course provides a detailed introduction to basic pneumatic systems and their individual elements. During the course, students learn about the principle of operation of the Pneumobil racing and have the opportunity to test drive. They gain knowledge and practical skills that are applied to the design of a simple mechanism driven by a pneumatic system. They will learn how to control the mechanism using an Arduino development board and improve their CAD modelling and 3D printing skills. The company provides pneumatic elements for the course and also provides three training sessions during the semester, which take place in a special training room at the company's premises.

The Department of Power Engineering of the BUT FME in cooperation with CEZ Group, a.s. organized a series of popularization lectures in the field of nuclear power for students mainly from the BUT FME and BUT FEEC, for example, on the operation and control of a nuclear power plant unit, which was led by the operator of the primary circuit of the Dukovany Nuclear Power Plant. Within the Nuclear Power Engineering and Alternative Sources course in the Energy Engineering specialisation, specialists from the ČEZ Group are actively involved in lecturing students on nuclear physics, such as the nuclear fuel cycle, uranium fission, reactor core design and radioactive waste management, and on nuclear reactor classification and design, including special welding processes in the nuclear part of the unit.

The Department of Power Engineering of FME BUT also cooperates for a long time with experts from Siemens Energy, s.r.o., a spin-off plant of Industrial Turbomachinery. The specialists supplement the teaching in the basic professional subjects of the specialization of Energy Engineering in the field of design, production and operation of steam turbines, namely in the subjects Steam Turbines, Design in Power Engineering and Operation and Water Management. The students were given expert lectures on steam turbine design during the bidding process, design of auxiliary technologies such as oil management, design of a machine room with a steam turbine and other technologies, as well as a lecture on the commissioning of turbomachinery, including the conditions for the first start-up of new equipment.

CESA is involved in the implementation of the Sports Technology degree programme. The curriculum includes 480 hours of internship, which takes place at more than fifty contractors from technology companies, sports medicine and others. Experts from the practice participate in the teaching of compulsory and elective courses. There is also professional cooperation with experts from foreign partner universities.

FFA regularly cooperates with companies from the creative industry, especially from the gaming industry and design, in the form of student internships and professional practice.

At FCE, the intention to implement the study programme is discussed by the FCE Industry Council, which ensures the inclusion of practical subjects and the involvement of experts from practice in teaching. FCE has the same goal of cooperating with the Czech Chamber of Authorized Engineers and Technicians in Construction (ČKAIT). Students regularly participate in the JmK Construction Competition, where they win important awards. At the same time, the faculty cooperates with the Czech Association of Civil Engineers and important institutions in the field of construction.

Each new study programme at the BUT is subject to approval by the scientific council of the relevant faculty, with representatives from practice being external members of these scientific councils. External evaluators are a mandatory part of the subsequent discussion of the study programme in the Internal Evaluation Council of the BUT – for professionally oriented study programmes, it is directly required that at least one evaluation be prepared by a representative from practice. Representatives of the commercial sector also serve on the boards of study programmes.

Each study programme is subject to regular evaluation (at least once during the period of validity of the accreditation), and the programme guarantor must prepare an evaluation report, which includes the involvement of representatives from practice in educational activities.

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

The Centre for Continuing Education at the University is the Institute of Lifelong Learning of the BUT, which offers courses for employees and the public, including seniors. Nine courses were held for the public in 2023, which were attended by 119 participants. In internal staff training, 1 561 people were trained and 159 courses were organised. At the U3V BUT, 2 369 participants were trained in 68 courses.

Further education also took place at individual faculties and university institutes. These include mainly summer schools,

workshops and conferences for students and academics, specialised courses for applicants, the public and commercial entities.

FME held several summer schools in 2023, which attracted hundreds of young enthusiasts to practical technology. They tried soldering, programming, 3D printing, driving a pneumatic car, learned more about artificial intelligence or robots and experienced life as a university student. A new addition to the Summer with Technology series was the extension of the AI.CAMP program to elementary school students. The second novelty was a summer school dedicated to 3D printing and design – IngCamp 2023. In addition, a Summer School of Mechatronics was held, during which high school students created their own working model of a solar tracker project in five days. And the Engineering Technology Summer School featured activities across the entire Institute of Engineering Technology. The Science & Technology Club, which has been active at FME for many years, also tries to attract the public's interest in technology.

The Juniorstav conference organized at FCE presented the most interesting doctoral theses not only from the faculty but also from other universities. In addition, a number of expert lectures were held at FCE, for example in September a lecture by the Spanish expert Héctor Cifuentes from the University of Seville on current research in the field of concrete, and in October a lecture on XXL tiles in practice,

Every year, FIT organizes the IT Summer School for Girls, which is designed for female high school students. They have the opportunity to get acquainted with different areas of information technology and its latest trends. The BISSIT International Summer School for International Students regularly introduces current IT topics. In addition, the faculty organizes lectures with foreign VGS-IT experts.

FCH traditionally organized a student scientific international conference Chemistry is Life.

FBM organised a Qualitative Research Workshop within the Inprofo Consulting programme for OR-CZ spol. s r.o. focused on brand development of a new product. In addition, an inter-university workshop to promote entrepreneurship and entrepreneurship in cooperation with the Technical University of Liberec and practical workshops at universities in the USA (Stanford University, Case Western Reserve University in Cleveland, University of California at Berkeley) were held to present and discuss specific outputs of the applied qualitative research of Vít Chlebovský.

In 2023, the FA in cooperation with TIC Brno created a series of lectures on architecture for the general public called Lessons in Architecture, which included lectures by domestic and foreign experts. In the summer, the faculty organised a week-long Architectural Perspective Drawing Course for interested members of the public, as well as autumn preparatory courses and architectural drawing courses. In the fall, the 12th Annual Conference On Architecture And Urbanism 2023: Constraints for further development was held for international doctoral students. Throughout the year, a series of workshops were held for students and academics in collaboration with international architectural figures.

FFA held afternoon courses in drawing, sculpture, and drawing the nude and figure. Those interested could attend summer schools, which were led by FFA alumni and focused on sculpture, digital illustration, game design, painting, body design, screen printing, or audiovisual and sound design. FFA also actively promotes interest in the visual arts through its exhibitions.

The Institute organized the annual international conference of experts in technical and technical-economic fields ExFoS (Expert Forensic Science) and the professional conference of doctoral studies JuFoS (Junior Forensic Science Brno), which is a unique opportunity to establish new contacts and exchange knowledge from scientific and research activities of future experts in forensic sciences not only from the Czech Republic. In addition to the traditional long-term courses aimed at preparing candidates for obtaining an expert license, in 2023 the Institute also focused on developing the knowledge and skills of experts who are already engaged in expert activities and adapting to the new conditions in the field of expert science. For these trainees, the Institute prepared two courses that served to clarify the procedures for dealing with expert reports to meet the demanding requirements of the new expert law. Another course was aimed at practical solutions of difficult problems in the field of valuation of road and special vehicles and determination of the amount of property damage.

CEITEC BUT organized the Student Talent Summer School 2023. The four-day program included lectures and countless hours in laboratories. A total of 28 talented participants from high schools and gymnasiums from the Czech Republic and Slovakia, who have a deeper interest in scientific laboratory work, took part in eight scientific topics announced by CEITEC BUT PhD students. The winner of the summer school was the team that focused on wound covers for stopping bleeding and promoting healing in regenerative medicine.

CESA organized the Summer School of Sports Technology. It was a three-day hands-on training for 25 high school students from all over the Czech Republic. CESA also offers a Senior Fit programme as part of the U3V BUT.

4 Students

4.1 Measures applied to reduce academic failure

In order to promote the success of studies, the BUT already takes steps in relation to potential applicants for studies. All faculties provide clear and detailed information about their study programmes and inform applicants about what to expect when studying, not only on their websites, but also at higher education fairs, high school campaigns and open days. The information provided will enable applicants to make the right choice of study programme, taking into account their individual abilities and interests, which is the first prerequisite for successful future studies.

Individual faculties of the BUT offer preparatory courses for the entrance examination and courses for first-year students before the start of the first semester. Preparatory courses are offered by all BUT faculties. Talent tests, i.e. preparatory courses for talent exams, are organised at the FA. At FCE, spring preparatory courses in mathematics, physics and descriptive geometry are held annually for applicants. For those interested in studying architecture, a Talent Exam Prep Course is held in the fall. As part of their studies, students may enroll in electives, such as Solving Examples in Mathematics or Solving Examples in Engineering Physics, the completion of which can help them pass the exam.

As a highly selective faculty, FFA allows prospective students to meet with the heads of individual studios several times a year, during which applicants can consult the direction of their own work and choose a suitable field of study. Organised consultations take place during the open days (Enter FFA), but teachers are also available for individual consultations throughout the academic year. FFA also organises targeted visits to selected secondary schools and a series of summer courses for those interested in studying.

It is also important to balance the entry knowledge of newly admitted learners. Students from grammar schools, whose proportion is very high in some faculties, usually have only very marginal technical knowledge. In contrast, they have knowledge of mathematics and physics, giving them an advantage in theoretical subjects. The situation is reversed for graduates of technical industrial schools. At FEEC, first-year students traditionally have the opportunity to supplement any missing knowledge in elective seminars in mathematics, physics and electrical engineering. At FME, new students can enrol in elective courses such as Selected Chapters in Fundamentals of Design, Selected Chapters in Mathematics, Selected Chapters in Constructive Geometry or Selected Chapters in Elasticity and Strength, among others. The FIT and FBM also organize a mathematics knowledge leveling seminar for beginning students. Preparatory and leveling courses for first year undergraduate students are organized at FCH, namely Preparatory Course for Chemistry, Repeating the Basics of High School Chemistry and Repeating the Basics of High School Mathematics. FCE regularly organizes Spring Preparatory Courses in Mathematics and Physics and Summer Technical School for its prospective students.

Teachers in the school-wide follow-up master's degree programmes provided by the Institute also face different levels of learners' input knowledge. These are interdisciplinary programmes in which students acquire not only technical, but also economic and legal competences. Special attention was paid in 2023 to the development of the Real Estate Engineering study programme. In the context of the preparation of the audit report, the findings of the students and academic staff were evaluated and subsequently used to adjust the study programme.

At FME and CEITEC BUT, first-year and upper-year students can address their problems to ambassadors, which are upper-year students who help their classmates solve their potential and actual problems related to their studies. FIT uses study advisors, faculty staff who advise students on how to follow all the rules for a smooth course of study and avoid the risk of dropping out due to ignorance of the regulations. The Institute of Study Advisors has also been operating for several years at FCH, where every department has an advisor. At the FA, FFA, FBM or FCE, they organise an introductory lecture for first-year students in which they are informed about the most important rules of their studies. At FFA, the Respect to Academia* course was introduced in 2021/2022, which is a practice-oriented interactive workshop designed to provide learners with information and tools for dealing with particularly ethical issues that could lead to their graduation. In the academic year 2022/2023, the FFA introduced a new course Orientation FFA, whose structure is based on a gradual familiarization with the school building and all its departments. The aim is to inform learners about the structure of their studies, about assessments, how to apply, scholarship opportunities and student grant competitions or about intra-faculty and national internships or foreign stays. A separate section covers the basics of academic writing, methodology and how to work with sources and citation standards. Also important is participation in a sexual violence prevention workshop followed by a consultation session with the school ombudsman/ombudswoman.

CEITEC BUT focuses on an individual approach to doctoral students. They receive all the necessary information regarding their studies during the enrolment process, when they have the opportunity to ask questions. During the course of their studies, they address their problems in the study area directly to the study department, which treats each issue individually and tries to resolve it in the student's favour.

The Alfons Counselling Centre, which is part of the Institute of Lifelong Learning of the BUT, also helps to identify the causes of academic failure and where students can take advantage of individual consultations. In addition, Alfons offers the possibility of further development in the case of specific needs of learners, for example, the use of EEG Biofeedback equipment, which helps to increase the ability to concentrate. Learners with specific needs are given

special attention and care at the Alfons Counselling Centre, which helps them to successfully complete their studies.

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

4.2 Final decisions on invalidation of the state examination or its part or dissertation defence

No such proceedings were held at the BUT in 2023.

4.3 Measures applied to limit prolongation of studies

One important means of limiting the extension of studies remains the threat of fees associated with exceeding the standard period of study extended by one year. The study departments of all BUT units try to thoroughly inform students about the conditions of the fee obligation from the beginning of their studies so that they can adjust their study strategy in time to avoid potential payment of fees. While the fee is relatively small for the first year after the standard period of study has been extended by one year, it is a significant financial amount for longer periods of study. In 2023, fees were reduced under the appeals process after consideration of the reasons given, mainly health and social reasons. Students affected by the ongoing war in Ukraine were also treated individually in this respect.

At all faculties, students are advised on the organisation of their studies in specific study programmes to avoid prolonging their studies. Preparatory courses to help students bridge the transition from secondary school to university are also very useful.

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

Some faculties also allow for more flexible enrolment of courses so that learners can better plan their studies. CEITEC BUT adapts the study plans of its PhD students to their individual needs, especially for international students who start their studies during the academic year due to lengthy visa processes.

At FIT, the most frequent reason for prolonging studies in the long term is the concurrent employment of students. Since students usually work in the field they are studying at the same time, the faculty cooperates with companies on a system of student internships, which, compared to traditional employment, better enable students to fulfill their study obligations. The same problem is also faced by the follow-up master's degree programme at the FBM. Here too, the faculty tries to cooperate with companies in organising studies.

FCE strives to reduce academic failure by, for example, increasing the proportion of practical teaching and individual attention to learners. The problem is mainly the difficulty of specific courses, but also the content of the course not fulfilling the learner's idea. It is therefore necessary to inform applicants and new learners thoroughly about the content of their studies.

4.4 Custom and specific scholarship programmes

In 2023, 500 best students of all BUT faculties who completed the first year of studies with excellent results were financially awarded. This was a one-off grant that rewarded academic achievement at the very beginning of university studies.

In most faculties, merit scholarships are paid in bachelor's and master's degree programmes to outstanding students according to the average grade point average and the number of credits earned. Some faculties also regularly support gifted first-year students with exceptional scholarships based on their academic performance in the first semester of study.

At all faculties, students can receive a scholarship if they engage in scientific or creative activities beyond their standard study obligations. For exceptional academic or creative achievements, students are rewarded with the Dean's Award or the Rector's Award.

The BUT scholarship also supports the school's significant representation in sport. The specific conditions for obtaining these scholarships are set by the Sport at BUT project and 280 such scholarships were paid out in 2023. The BUT is also involved in the UNIS scholarship programme of the Ministry of Education for students with exceptional sporting performance. In 2023, 29 learners were also included in the scholarship programme of the VICTORIA University Sports Centre on the basis of a selection procedure. A further 54 exceptional scholarships were paid from the project to support talented learners.

The faculties also support their active learners with one-off exceptional scholarships for representing the school in the field of science or other creative activities. Each year, FME promotes the faculty at secondary schools, where students present their experiences of studying at the university at their home secondary schools. At the FA, outstanding work by students who have made it outside the BUT is regularly recognised through scholarships.

At FIT, they motivate outstanding doctoral students with exceptional scholarships that match their income up to the average wage, so that they can devote themselves fully to their studies and not be forced to work outside the university at the same time. FCH and other faculties support PhD students with incentive grants for research and publication results. CEITEC BUT supports its doctoral students with excellent results with an exceptional scholarship during the entire regular study period, which is four years. Several scholarship support programmes are also provided by the Faculty of Arts and Technology in the form of the announced scholarship programmes Support for the Realisation of a Master's Thesis, Support for the Artistic and Creative Activities of Students, Support for the Artistic Activities of Doctoral Students, Dean's Award for a Master's and Bachelor's Thesis, Scholarship for the Loan of a Work of Art (Artotheque).

The intention of the programme of extraordinary scholarships at the Institute is to motivate students in doctoral study programmes to timely fulfil their study obligations within the framework of their DSP studies and to increase the quality and number of publications in professional and scientific journals, to actively participate in doctoral, national and international conferences, to create technical outputs from measurements, from solving complicated and unusual expert cases and from solving other forensic engineering problems, to create methodologies for solving expert problems, to submit and solve projects and to take an active approach in fulfilling the tasks of the training institute.

The Rector of the University may award an exceptional social grant to a student in the event of a sudden deterioration of the social situation. The purpose of this one-off scholarship is to help bridge an unfavourable period and increase the chances of successfully continuing studies. Students can also receive an exceptional social grant at some faculties.

The Student Chamber of the Academic Senate of the BUT offers active students the opportunity to obtain funding for their idea through the BUT Internal Student Support Fund. Submitted proposals are evaluated 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

Counselling services are concentrated at the Institute of Lifelong Learning of the BUT (ICV BUT), where six psychologists have been working since March 2023. They provide professional psychological help to students of the BUT who want to solve their problems, find themselves in a difficult life situation or want to better orient themselves and try to develop their personality and their abilities. Two psychologists specialise in supporting students with specific needs (see chapter 4.6). In addition, the ICV BUT provides part of the agenda of the former Career Centre and is involved in the development and provision of the university's social security system.

ICV BUT provides the following consultancy services:

- psychological counselling of up to seven sessions,
- Career counselling in which it also participates in the organisation of the JobChallenge job fair,
- coaching,
- development of a professional-personality profile (counselling using psychodiagnostic methods);
- psychological care for students and staff who find themselves in difficult personal or professional situations due to a breach of social security;
- development courses for learners aimed at supporting the learner's personality and competences related to their future position on the labour market.

ICV BUT provided a total of 1,183 consultations, of which the majority (1,023) were psychological consultations, see Table 1.

Table 1: Number of consultations of the advisory service

Service	Number of consultations
Psychological counselling	1,023
Career counselling	40
Coaching	48
Working psychodiagnostics	70
Social security	2
Total consultations	**1,183**

4.6 Support for and identification of students with specific needs

Support for students with specific needs is provided by the Alfons Counselling Centre (PC Alfons), which is part of the Institute of Lifelong Learning of the BUT. Its main task is to provide counselling and support services to applicants and students with specific needs.

Specific needs are defined as specific learning disabilities, physical and sensory disabilities, chronic somatic illnesses, autism spectrum disorders, mental illnesses and impaired communication skills.

Basic support for learners with special needs includes adaptation of the admission procedure, i.e. changing/adapting the admission procedure so that learners with special needs can demonstrate their skills and knowledge in the same way as able-bodied learners.

Identification takes place when filling in the e-application form, where the applicant indicates their specific need. They are then asked by a PC Alfons staff member to provide the acceptable documents necessary to assess the impact of their disadvantage on the admissions process. Learners apply for an adaptation directly by contacting PC Alfons, or are advised to do so by the individual faculty's study department or the Vice-Dean for Student Affairs. They are regularly informed about activities and support opportunities on the Centre's website and on social media.

Studio adaptation takes the form of various overhead measures. These include, for example, an increase in the time allotment for exams, provision of study materials, interpreting into Czech sign language, increased assignments, permission for hygiene breaks and transcription services. It may be possible to use the content notation service for learners who have difficulty taking notes. Other support services include the offer of personal assistance, the loan of software aids, supplementary English language tuition or conversation in English, language revision of work in Czech and language advice in Czech and English.

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 852 terms translated into Czech Sign Language. The dictionary is also used outside the university environment.

The Alfons Counselling Centre also operates the S-Kompas social and legal counselling centre. The Centre also provides educational courses for students with special needs and for staff who come into contact with these students. Six courses were held in 2023.

The Alfons Counselling Centre participates in the Night of Scientists, where it presents its services, including the centre's canister therapy dog, Cinderella. This event is interpreted into Czech sign language for deaf participants. A documentary about the work of the centre was made for the Television Club of the Deaf. He also participates in the meeting of the RMB Advisory Council for Barrier-Free Brno, which deals with issues of accessibility solutions for the city of Brno and barrier removal. And she also has an active membership in the Association of Service Providers for Students with Special Needs.

The Centre is a member of the Werner von Siemens Prize in the category of the Award for Overcoming Barriers to Learning. In 2021, a deaf student from FME won first place, and in 2023, the winner of this category was a student from FIT.

Table 2: Evolution of the number of clients by type of SP (specific needs)

Type of specific need	2016	2017	2018	2019	2020	2021	2022	2023
A1 – mild visual impairment	3	5	5	3	5	8	7	3
A2 – severe visual impairment	0	0	0	0	0	0	1	1
B1 – mild hearing impairment	8	13	12	13	19	18	21	3
B2 – severe hearing impairment	2	2	1	2	2	2	2	1
C1 – lower limb disability	0	1	1	0	4	5	2	4
C2 – upper limb disability	2	3	3	4	4	4	3	2
D – specific learning disabilities	92	85	84	104	185	177	216	287
E – autism spectrum disorders	4	5	4	6	7	5	8	16
F – psychiatric and chronic somatic diseases	26	39	31	50	54	69	83	98
Total	**137**	**153**	**141**	**182**	**280**	**288**	**343**	**415**

4.7 Support and work with exceptionally gifted students and prospective students

BUT faculties provide gifted students with merit and exceptional scholarships and can nominate them for the Dean's Award or the Rector's Award. Some funds for the award of exceptionally gifted students are donated by specific corporate partners. 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. In the traditional competition for Brno Ph.D. students, the Brno Ph.D. Talent, seven PhD students from the BUT were awarded in 2023. Among the internal competitions, we can mention, for example, the presentation competition 8 from the BUT, which the university organizes annually and in which the eight best graduates of bachelor's degree programs compete, measuring their strength in rhetoric and popularization of their bachelor's theses.

A teacher at FFA can obtain information about a prospective student's exceptional talent before the admissions procedure begins, usually by contacting the prospective student and consulting with him or her about his or her wishes and study or artistic intentions. After fulfilling 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 as students they are further supported to engage in research through project practice. In 2023, FIT awarded 90 talented first-year undergraduate students. At the FBM, talented students are provided with individual space to engage in the faculty's professional activities as research assistants, if they wish, or as part of a programme to support the development of student start-ups, linked in particular to professional study programmes. Another form of support is the programme of consulting individual entrepreneurial projects.

At the Institute, gifted students are involved in solving interesting problems related to the creative activities of the Institute, especially with the offer of selecting suitable thesis topics to motivate them to continue their doctoral studies. At the end of their studies, talented students of the follow-up Master's programmes are awarded the Rector's Prize and the Institute Director's Prize for excellent study results, including an exceptionally elaborated and beneficial thesis. These awards are combined with the award of a scholarship and the award is presented on the occasion of graduation ceremonies.

In 2023, the BUT awarded the top 500 first-year students according to their academic performance. At large faculties, for example at FME, around 90 best first-year bachelor's graduates were awarded, while at smaller faculties, depending on the number of students, fewer were awarded, for example, at FA there were 30 students. At FCE, a faculty scholarship is provided annually to the best students enrolled in the first years of Bachelor's degree programmes. These are 50 students who meet the conditions set by the Dean's Instruction (average in high school and number of credits earned in the winter semester).

Candidates for study at BUT are also involved in secondary school professional activities or competitions, such as STAVOKS at FCE, Business Point at FBM, Merkur PerFEKT Challenge at FEEC or Robots@FSI at FME. Thanks to the CEITEC Student Talent project, selected candidates from secondary schools can also try their hand at working at the CEITEC BUT Science Centre and the best of them will join renowned scientific teams. In addition, study candidates are offered participation in summer schools that take place at many faculties and units of the BUT. Completion of these activities may be an advantage at some BUT faculties and the participant may be exempted from the entrance exam.

In addition to activities in student organizations, such as BEST Brno, IAESTE, ESN BUT Brno, active students can also find employment in specific scientific projects solved at their home institutes. Doctoral students are commonly involved in specific research, participate in international conferences, etc.

Every semester, FFA offers gifted students the opportunity to study in a special studio of a guest teacher, who is usually a prominent foreign artist. Since last year, there has also been the possibility of a year's free studio on the Kraví hora campus, and part of the FFA Dean's Award for Faculty graduates is the possibility of a month-long artist residency at Nová Perla in Vraný nad Vltavou from 2021.

In 2023, the FCH significantly expanded the offer of SOT and professional practice for gifted secondary school students. 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, a series of workshops and lectures focusing on current topics and serving to practice practical skills in a laboratory environment was again prepared. Another important activity at FCH was the organization of the regional round of the Chemistry Olympiad. Every year, high school students at FCE are given themes for their papers, which they work on in collaboration with PhD students and then defend before a committee. On the basis of a successful defence, these students can be admitted to study without an entrance examination.

4.8 Supporting and identifying students with socio-economic disadvantages

The BUT does not have its own tool for active identification of students with socio-economic disadvantages, but these students can apply themselves and apply for, for example, a social scholarship. For example, at the FME, in 2023, students from Ukraine were able to draw a scholarship on the basis of an application for support.

Both students and employees of the BUT have access to the S-Kompas counselling centre within the ICV BUT, which offers assistance mainly in the legal and social fields. Support is provided by e-mail, telephone or personal consultation. The S-Kompas services are linked to other governmental and non-profit entities and help to navigate the help and support.

4.9 Parental support among students

Each student-parent can request an individual study plan from his/her faculty. This applies especially to student-mothers during the period when they would otherwise be on maternity leave. These female students may request a deferral of their study requirements in the period prior to the due date. Students who are parents of a child under the age of three may request an interruption of their studies, which will always be granted by the Dean and the period of interruption due to parenthood will not count towards the maximum period of study.

The FA allows PhD students with young children to substitute a foreign internship with another form of international activity. Both parents of a child under the age of three may apply for individual adjustment of attendance requirements in courses in which attendance is compulsory. FME allows student-parents to take exams outside of exam periods or to set up an individual study plan. At FCH, student-parents can apply for financial support in the form of a scholarship.

FFA allows parents between students to fulfill their study obligations in extraordinary terms throughout the academic year, or to spread them over several years. Some studios have even adapted their facilities to allow studying parents to bring their young children into the studio to pursue art-making.

The Edisonka mini-school has also been operating at the BUT for eight years. The mini kindergarten is located on the premises of FEEC and is intended for children of BUT employees. It is not a classical kindergarten, but a regular babysitting service in the form of a children's corner for children up to six years of age. The FCH has set up a special room as a backroom for student-parents who take turns caring for the child between teaching blocks, and some of the ladies' toilets at the BUT are equipped with baby-changing counters.

5 Alumni

5.1 Cooperation and contact with graduates

BUT annually expands its database of electronic alumni contacts. At the end of 2023, there were more than 27,000 of them, which means an increase of more than 1,000 contacts compared to 2022. The University presents its successful alumni mainly through articles on the alumni website and on www.zVUT.cz. Nearly 20 alumni articles were published during 2023. These topics also resonate on social media, the strongest of which is LinkedIn (with more than 58 thousand followers, representing an increase of 4 thousand compared to 2022).

In 2023, the BUT also continued to publish the VUTARIUM newsletter for graduates. During the year, two issues were published with articles, interviews, invitations and information about current events at the BUT.

The cooperation with graduates also continued with their involvement in the design and creation of representative promotional items of the BUT. Alumni were newly involved on social media as protagonists of campaign videos or posts in the BUT's Here you can make a difference campaign.

In 2023, the BUT also continued to communicate with other universities within the grouping of University Graduate Centres in the Czech Republic under the umbrella of the University of Economics in Prague with the aim of sharing current needs, know-how, data, research and good practice in working with graduates.

In 2023, a new strategy of cooperation with graduates of the BUT was developed, the main pillar of which is a separate graduate online portal with a unified registration environment, an updated database of contacts, an offer of cooperation and benefits and the possibility of two-way communication between the university and graduates.

5.2 Monitoring of graduate employment, measures to increase it, self-surveys and reflection of results in the content of study programmes

Surveys implemented and ongoing

Among the regular surveys at the BUT, the Study Applicant Survey was launched in 2023, with a planned completion in March 2024. The survey focuses on obtaining basic data about the applicant's current studies, expectations from studying at the BUT, factors and circumstances of the choice of the BUT, and finally a comparison with selected competitor universities.

An irregular questionnaire survey, the Mental Health Needs Survey among BUT students, was then conducted among the students. This was a questionnaire aimed at mapping basic aspects of mental health among students, such as psychological well-being, sources of discomfort and ways of coping with it, satisfaction with and demand for psychological counselling services offered at the BUT.

Surveys in preparation

Three regular surveys, scheduled for spring 2024, underwent content revisions in 2023 – the Survey of Graduates, the Survey of Completing NMgr. Survey of outgoing NMgr. students and Survey of outgoing Bc. Students. It is planned to move from a biennial to an annual frequency for all these surveys. All three of these surveys are similar in nature, with the main objective being to monitor graduating students and to identify:

- Satisfaction overall and with selected aspects of the study,
- previous experience in the labour market,
- current employment in terms of work in the field, salary level, in the case of the unemployed, circumstances of job search,
- evaluation of the competences acquired during the studies in terms of their applicability in practice.

In the survey among students who are finishing their studies, more emphasis will be placed on the evaluation aspects of their studies, while the survey among graduates (within one year of graduation) will focus more on the applicability of competences acquired by studying at the BUT.

In the autumn of 2023, in cooperation with the South Moravian Innovation Centre, the preparation of a survey among primary school pupils and secondary school students was launched. The survey will focus on career decision-making (interest, information acquisition, circumstances and decision-making factors) and attitudes towards STEM fields (in general, towards studies and towards careers).

5.3 Cooperation with future employers of students

The BUT has resumed regular meetings with industrial partners at the university level, who are employers of our graduates and students, partners of subsidy research projects and also commissioners of contract research. In December 2023, the BUT re-established the BUT Industrial Council to promote knowledge transfer and the trading of our intellectual property, also as a discussion platform on the educational needs of industry and as an evaluation platform for the assessment of study programmes.

Every year, BUT students have the opportunity to meet future employers at career fairs. For fifteen years now, the FEEC has been hosting the perFEKT JobFair, where companies from the electrical industry and information and communication technologies present themselves. FME organises a Company Day, which is designed to present companies from the field of mechanical engineering. FCE hosts a job fair, Fast Job Days, to connect students with work experience. The fair showcases companies that work with the faculty as part of a partnership program.

At the level of faculties and institutes of the BUT, cooperation with employers also takes place in teaching and research. Several faculties have established their own partnership programmes that specify the scope of mutual cooperation.

The University discusses current educational needs, strategic directions and opportunities in research and development with partner companies, including Honeywell, Thermo Fisher Scientific Brno, ON Semiconductor, GE Aviation, ABB, E.ON, Tescan, Microsoft, representatives of the South Moravian Innovation Centre, the American Chamber of Commerce and many others, whose mutual cooperation and support the University greatly appreciates.

These meetings have led to the initiation and contracting of new strategic partnerships during 2023, in addition to a shift in mutual understanding of the educational needs of modern engineers and the needs in the collaborative research setting. For example, Honeywell and onsemi, with whom BUT is collaborating on a new model of industrial doctorates inspired by the Danish or Norwegian experience and motivated by the upcoming reform of doctoral funding. The university is currently preparing a pilot run of several such doctorates.

The BUT has also developed traditional strategic partnerships with Thermo Fisher Scientific, which runs an extensive student internship programme, or with Hitachi Energy or Tescan. The University cooperates with Siemens, among others, in the framework of the Werner von Siemens Prize competition. An important area for the development considerations of the BUT is a closer connection and cooperation with the Brno Technology Park, in which the university owns one premium share and is gradually looking for ways to expand active cooperation, especially in the area of knowledge transfer, for example within the ContriBUTe project.

Discussions are also taking place with key representatives of government, educational institutions and industry. At the end of October 2023, the BUT organised a roundtable on technical education, the main topic of which was to find ways to increase interest in studying technical and natural sciences not only in the Czech Republic but also in Europe. The discussion was attended by the Prime Minister of the Czech Republic, members of the Presidency of the Confederation of Industry and Transport, the President of the American Chamber of Commerce in the Czech Republic, the representative of the British Embassy in Prague for universities and cooperation with industry, the President of the Regional Chamber of Commerce in Brno, a representative of the South Moravian Innovation Centre and FabLab, as well as directors and representatives of leading Czech and international hi-tech companies, such as Honeywell, Onsemi, Thermo Fisher Scientific, Y-soft, and Hitachi Energy.

6 Interest in studying

6.1 Nature of the entrance examination

If the individual faculties and units of the university do not use the services of Scio, which regularly organises the National Comparative Examinations, they are responsible for the admission examinations at the BUT. They usually consist of secondary school mathematics and physics, but at some faculties also biology or computer science, depending on the specific study programme.

Most faculties have an extensive system of waiving entrance exams based on performance in high school or participation in various competitions (especially in Secondary Vocational Activities, Olympiads, etc.). For example, FIT tries to seek out active applicants who are already engaged in activities beyond their academic responsibilities in high school. FA, FFA and the architecture studies within FCE have an extra talent component in the entrance exam. The talent exam is also taken by applicants to FEEC for the Audio Engineering programme and to FME for the Industrial Design in Engineering programme.

Entrance examinations for study programmes conducted in English are most often conducted in the form of oral interviews, in which, among other things, the motivation to study and the applicants' language readiness are determined. The specific character of the entrance examinations for doctoral study programmes is that they are conducted in the form of an expert debate on the intended dissertation topic, where it is necessary to verify not only the necessary knowledge but also the applicant's readiness for the 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 units. The selection of secondary schools is based on the relevance of their focus, region and other criteria. Ambassadors, who are students of the BUT, go to the high schools that show interest in the Roadshow to present the study programmes and to give information about studying and student life at the BUT. In the discussion that follows, the ambassadors 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 high school students because the presenters are close to the applicants in age and contribute to a positive perception of BUT.

The traditional meeting with the principals of secondary schools whose graduates have started their studies at the BUT and received the TOP 500 scholarship was held at the FA in 2023. More than two dozen principals and headmasters of secondary schools took the opportunity to visit one of the faculties of the University of Brno. In addition to the presentation of the university as a whole, the faculty itself was presented to them and there was also a discussion.

The BUT with its exhibition stand has traditionally been part of the largest fair of post-secondary education in the country, Gaudeamus Brno, which took place at the turn of October and November 2023. Lectures for students and teachers or the Science for Life programme with interactive scientific exhibits complement information about the admission procedure, study programmes, faculties and units and the university's facilities. Communication with visitors to the fair is supported by the University through participation in accompanying programmes. In addition to the Brno Gaudeamus, the BUT also participated in the Gaudeamus fairs in Prague, Nitra and Bratislava, and a presentation at the Gaudeamus fair in Košice.

In 2023, BUT continued its previous partnership with FabLab University. Through a shared workshop, the project enables practical education in digital manufacturing technologies for students of partner and special interest primary and secondary schools, not only in the South Moravian Region. Pupils and students can learn the latest information about modern manufacturing and prototyping and also try out all the machines, such as 3D printers, milling machines or electron microscopes, and produce something on them.

The individual faculties also have close cooperation with the secondary schools. They organise professional competitions and conferences for individuals and teams from secondary schools and offer lectures and workshops for schools. Every year, the BUT participates in the Secondary School Vocational Activity with a variety of topics. Some faculties also offer summer schools. For example, the FIT summer computer school for girls has a long tradition.

BUT Junior is a project for pupils of the second grade of primary schools and students of lower years of multi-year grammar schools. Its aim is to familiarize pupils with the environment of the BUT, modern technologies, the latest knowledge resulting from scientific activities at the BUT and to positively develop pupils' interest in technical fields and creative activities. The project activities take place at the faculties and units of the BUT, which take turns in organizing lectures so that BUT Junior participants visit as many university departments as possible during the academic year. During the academic year, participants will meet a total of ten times. A matriculation ceremony is held at the beginning of the programme and upon graduation, participants receive a diploma of completion at a graduation ceremony. In the 2023/2024 academic year, the capacity of the program was 100 students.

7 Staff

7.1 Career rules for AP and motivational tools for rewarding employees

The University perceives the establishment of the BUT Career Regulations as an important tool for transparent and effective planning and management of academic staff career across the entire University. Currently, the process of career advancement, development and remuneration is the responsibility of individual faculties and university institutes of the BUT, which set their own motivational tools for remuneration. It is important that the BUT Salary Code and other university-wide internal regulations and standards are always reflected.

One of the mainstays for managing career growth and monitoring the efficiency and performance of academic staff is the System of Academic Staff Appraisal (SHAP), which has been introduced at the BUT since 2020. In addition, the Rectorate of the BUT has been evaluating non-academic staff for the second year. During 2023, some other units joined the non-academic staff evaluation system.

BUT will continue to support the growth of qualifications and the development of skills and abilities of all its academic and non-academic staff. BUT sees both economic and moral (social/psychological) rewards for its employees as motivational tools.

7.2 Developing the teaching skills of academic staff

A set of courses that support the development of pedagogical competences and modern teaching methods is designed for BUT employees, academics and students of doctoral programmes. These are mostly one-day stand-alone courses focused on a specific problem. For example, student assessment, student motivation, the use of modern teaching methods, the development of communication and presentation skills, etc. are addressed.

In addition to these one-day courses, employees and students of doctoral programmes have the opportunity to attend a three-semester course in the Study of Educational Sciences – Teaching of Professional Subjects for Secondary Schools. This is a qualification course providing pedagogical competence for non-teacher graduates to teach vocational subjects in secondary schools. This course is accredited by the Ministry of Education and is fee-paying.

Academic staff and PhD students can use IT courses (Word, Excel, PowerPoint and other special software) to improve their work performance. In addition, academic staff attend courses on legislation, accounting and HR. This includes issues such as copyright at the university, conditions for posting staff abroad, etc.

Another area of academic education is language courses. Academics are particularly encouraged to be able to teach and publish in English. If they need German for their work, they can also take advantage of these language courses.

Academic staff also participate in soft-skills courses, which focus on the development of interpersonal skills (development of social and emotional intelligence). The content of these courses includes, for example, conflict resolution, teamwork support, cooperation support, conceptual and strategic thinking, etc. They use the acquired knowledge and practical skills especially when working with students.

In 2023, 527 academic staff participated in various types of courses (courses: 334, language training 178, DPS 15).

8 Internationalisation

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

The development of internationalisation through the participation of students and employees in foreign mobility programmes at Brno University of Technology is a key factor for strengthening the competitiveness of the University and its students on the labour market. Foreign study stays, practical internships, summer/winter schools and other forms of mobility provide invaluable experiences that enrich the academic and professional life of participants.

International mobility is an important element in building students' careers, as international experience broadens horizons, increases adaptability in an international environment and provides a competitive advantage in the labour market, where international experience is often required.

The Erasmus+ programme offers new forms of Blended Intensive Programme (BIP) that include both physical and virtual mobility. This flexibility makes it possible to overcome barriers to participation in traditional physical mobility activities.

Currently, combined mobility is used in the form of participation in BIP. The aim of this programme is to encourage international links between higher education institutions to jointly develop programmes for training, study and teaching for groups of students, academics or administrators using innovative approaches and digital tools.

Of the programme schemes that allow students and staff to undertake study stays, practical internships, summer/winter schools or short-term excursions, the Erasmus+ programme is still the most widely used. The priority for the 2020–2027 project period is inclusion and diversity, promoting equal opportunities and access, with a focus on overcoming barriers that may hinder mobility for students or staff (such as health disadvantages and social or economic barriers). Another priority for this programme period is digital transformation, in which the BUT is progressively digitising processes related to the planning and implementation of placements.

Other mobility programmes are also available to students and staff and are regularly presented to them. These programmes are not administered by the BUT but are external programmes. The Internationalisation Department of the BUT provides information about the programmes and methodological support to the faculties and units of the BUT. The most frequently used external programmes are the CEEPUS (Central European Exchange Programme for University Studies) and AKTION (mobility between the Czech Republic and Austria) programmes, Academic Information Agency scholarships, Barrande Fellowship Programme and others. Students and employees of the BUT also use the Free Mover mobility format for trips abroad. Thanks to the international student organisation IAESTE (International Association for the Exchange of Students for Technical Experience), students have the opportunity to gain foreign experience by going on practical internships. Other opportunities are offered by the international student organization BEST (Board of European Students of Technology), through which BUT students can participate in foreign courses focused on technical skills.

In 2023, the BUT Scholarship and Partnership Programme for Excellence 2023 was piloted, which supports bilateral mobility of excellent academic and scientific staff, excellent students and participation in international events and competitions.

The numbers of mobilities to be carried out in 2023 are shown in the following tables.

Table 3: Number of BUT students going abroad by mobility programmes

Mobility programme	Number of mobilities
ACTION	11
CEEPUS	4
Erasmus+ graduate traineeship	19
Erasmus+ graduate traineeship international mobility	1
Erasmus+ practical placement short-term international mobility	6
Erasmus+ traineeship international mobility	13
Erasmus+ traineeship	123
Erasmus+ short-term traineeship	52
Erasmus+ study placement	262
Erasmus+ short-term study stay	61

Mobility programme	Number of mobilities
Erasmus+ study stay international	8
Excursions – Development Programme of the Ministry of Education	23
IAESTE practical internship	3
Other (practical internship)	2
Other (study stay)	18
Another EU programme	1
Other/Not specified	15
PSSR	72
PPSŘ excursion	224
Development Programme of the Ministry of Education and Science	38
TOTAL	**956**

Table 4: Numbers of BUT employees going abroad in the Erasmus+ programme

Type of mobility	Number of mobilities
Erasmus+ training	268
Erasmus+ teaching placement	131
Erasmus+ teaching placement International credit mobility	1
Erasmus+ training international mobility	2
Erasmus+ teaching placement international mobility	20
TOTAL	**422**

Table 5: Number of students coming to the BUT from abroad according to mobility programmes

Program mobility	Number of mobilities
ACTION	1
Barrande Fellowship Programme	1
CEEPUS	16
Erasmus Mundus	2
Erasmus+ traineeship	39
Erasmus+ study placement	535
IAESTE practical internship	8
Another form of short-term study programme	87
Another EU programme	7
Self-placement on a short-term study programme	15
TOTAL	**711**

Table 6: Number of employees coming to the BUT from abroad according to mobility programmes

Mobility programme	Number of mobilities
ACTION	8
CEEPUS	9
DAAD	2
Erasmus+ training	20
Erasmus+ International Credit Mobility Teaching	14
Erasmus+ training international mobility	3
Erasmus+ tuition	18
Other/not specified	69
International agreement	1
PSSR	22
VAS virtual	1
University/faculty scholarship	1
TOTAL	**168**

An important organisation that takes care of foreign students before their arrival and throughout the semester is the Erasmus Student Network (ESN). The Internationalisation Department of the BUT communicates with foreign students mainly through the Admission Office, which is part of the department that deals not only with new arrivals but also with existing foreign students at all faculties and units of the BUT.

Before the beginning of each semester, the Department of Internationalisation of the BUT in cooperation with ESN organises a Welcome Week for international students. The aim is to introduce new international students to the environment of the BUT and inform them about important areas related not only to their studies but also to life in Brno, whether it is cultural customs or practical information related to their stay.

Through various activities, the BUT motivates students to gain study experience abroad. One of them is organizing events such as International Mobility Day, Mov'in Europe, faculty events and others. The pandemic has shown that some types of events can be implemented online. These events have a much greater reach than events that are physically organised. Live sessions or takeovers are regularly organised on social media, during which BUT students who have completed a study stay, practical internship or summer school abroad share their experiences. Not only the experiences that students have gained during their stay abroad, but also the experience of preparing for the stay, which is the administration related to arranging the stay and other practical matters, can be valuable. An ambassador network made up of BUT students who have experience of going abroad and promotion on social media are also used to motivate trips abroad.

The BUT actively focuses on attracting foreign students who study at the BUT on a long-term basis, so-called full degree students. One of the tools used by the BUT to recruit foreign students in 2023 was the Study in Brno project.

This project is primarily aimed at promoting the study programmes offered by the BUT and the project partners, which in 2023 were MUNI, MENDELU and JAMU. The Study in Brno project, in which the University cooperates with the Brno city administration, has shown that studying at the BUT is very attractive for foreign students. In terms of the origin of interest in studying at the BUT, the Study in Brno platform has the highest share of the total number of applications submitted by foreign students (25%).

To attract foreign self-pay students, the BUT is actively involved in the Study in Czechia platform, which not only promotes the university's study offer to potential foreign students, but is also key in other marketing activities aimed at international university cooperation. This platform is managed by the House of International Cooperation. The HEI cooperates with the South Moravian Centre for International Mobility (JCMM), thanks to which it is able to ensure higher numbers of foreign students studying in Czech. JCMM also offers scholarships to foreigners studying certain disciplines in English programmes.

One of the important factors for the recruitment of foreign students was the establishment of the Admission Office at the BUT. Based on the Admission Office Concept presented in 2022, a test run was launched in the first half of 2023 to set up key processes both in terms of communication and administrative integration. The Admission Office was fully operational at the BUT in September 2023. One of the biggest challenges of its operation is the diverse range of topics related to the recruitment of foreign students to the aforementioned full-degree programmes. The Admission Office communication aims to provide up-to-date, comprehensive and complete information to international students, whether they are new arrivals or existing ones. The Admission Office does not aim to separate and operate independently, but rather to unify and provide comprehensive services and advice to international students across the BUT.

Thanks to the above-mentioned steps, the BUT managed to increase the number of applications to English study programmes by 70% year-on-year. Furthermore, it has also managed to improve the conversion rate between submitted and paid applications to English degree programmes to 42% of paid to submitted applications. Overall, the interest in studying at the BUT in a foreign language has thus increased, which can be perceived positively, especially in view of the efforts to internationalise the university internally.

The goal for the next academic year is to reach 2,500 applications and 1,000 paid applications. The faculties of the BUT have responded to the analyses carried out by the BUT Internationalisation Department by both updating the offer of English study programmes and improving internal processes in order to make the admission procedure more efficient and faster.

An ambassador network is used to communicate with foreign students or to recruit them to study at the BUT, in which foreign students of the BUT are involved. An update and revision of the concept of the ambassador network was initiated in 2023. In the coming period, its further development and the creation of a communication plan in cooperation with the BUT Marketing Department is planned.

The BUT is constantly improving the conditions for the recognition of courses taken by students during their stays abroad. For this purpose, the Rector's directive is used, which sets the recognition of courses taken abroad. In general, it is desirable that students do not prolong their studies and complete them in due time, including the foreign experience.

The Department of Internationalisation of the BUT continuously implements its goal, which is aimed at reducing the administrative burden, both for students and employees, as well as for faculties and units. The Internationalisation Department of the BUT is involved in the Erasmus Without Paper (EWP) 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

The BUT was involved in the call OP VVV International Mobility of Researchers (MeMoV) I. and II. This project enabled two-way mobility of researchers and administrative staff. The project was beneficial not only for the researchers themselves, but also for the whole university in terms of sharing the necessary know-how. The MeMoV II project was successfully concluded in 2023.

In 2023, the pilot year of the BUT Scholarship and Partnership Programme for Excellence 2023 was launched, which supports, among other things, the mobility of excellent scientists and researchers.

8.3 Integration of foreign members of the academic community

The aim of the BUT is to develop excellence at the BUT through foreign scientific and academic staff. The integration of foreign members of the academic community into university processes within the framework of internationalisation is one of the main goals of the BUT, which will lead to the creation of attractive conditions for the implementation of international cooperation and an increase in the number of international staff working at the BUT.

The introduction of the central functioning of the Welcome Service is closely related to the Implementation Plan of the BUT Strategic Plan. That is why the central Welcome Service is an important centre for the integration of foreign researchers and academics at the BUT. Its aim is to create a comprehensive consulting environment not only for newly arriving foreign workers, but also for foreign workers already working at the BUT. The Welcome Service provides comprehensive care for foreign workers before their arrival and also during their stay. Thanks to the cooperation with EURAXESS, foreign workers at the BUT have the opportunity to take advantage of assisted meetings at the Department of Asylum and Migration Policy of the Ministry of the Interior of the Czech Republic or at the Department of the Foreigners' Police in Brno. Foreign workers, especially those from third countries, often come with their family members. Even in these situations, the Welcome Service is ready to provide comprehensive services to arriving families. As part of internationalisation, the integration and creation of an international community of researchers is important, which is why the BUT continues to strengthen and develop its cooperation with the Centre for Foreigners of the South Moravian Region and has also established cooperation with the Brno Expat Centre in 2023.

8.4 Activities to strengthen internationalisation

One of the main activities strengthening internationalisation at the BUT is membership in international networks and alliances. The BUT is a member of international university networks, including the European University Association (EUA), 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 geographically balanced consortium of ten universities that was supported as a European University in the 2023 call as part of a four-year project co-funded by the European Commission. The BUT has thus gained an additional source of opportunities to develop its strategic interests in cooperation with its nine closest strategic partners in Europe. In 2023, representatives of the BUT met in person with members of the CESAER Secretariat, the EULiST coordinating institution Leibniz University Hannover and participated in regular Annual Meetings within the above-mentioned networks, among others, to deepen existing cooperation and focus on further development in this area.

The international cooperation of partner foreign universities is implemented, among other things, on the basis of international agreements (Memorandum of Understanding).

Currently, the BUT has concluded 151 university-wide international agreements and 120 international agreements concluded by faculties and units. More than 600 inter-institutional agreements have been concluded 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 components. The output of the Action Plan is the Strategy for Internationalisation in the internal environment of the BUT.

The BUT also received several foreign visitors in 2023, for example, a delegation from Leibniz University Hannover within the framework of EULiST, Cracow University of Technology or TU Graz. The BUT actively participates in foreign career fairs, where it promotes its study offer for foreign students, opportunities for cooperation with university staff or opportunities for cooperation in science and research. In 2023, the BUT participated in the APAIE (Asia-Pacific Association for International Education) and EAIE (European Association for International Education) career fairs.

8.5 Virtual and combined mobility

Virtual and combined mobility are among the new types of mobility that have become part of university studies. In virtual mobilities, learners remain at the BUT for the entire mobility period and participate in learning activities in the host country online.

Currently, BUT fully supports physical mobility and virtual mobility is not used. Students or staff who cannot participate in long-term mobility for any reason have the opportunity to participate in the BIP format, which consists of a virtual and a physical part and is organised in cooperation between three universities from three programme countries.

The BIP aims to encourage international connections between higher education institutions to jointly develop programmes for training, studying and teaching groups of learners, academics or administrators using innovative approaches and digital tools. Combined mobilities allow rapid sharing of teaching practice, improvement of presentation skills and certain savings in time and money.

The BUT is currently addressing the topic of virtual and combined mobilities also within the European University EULiST, which involves nine other foreign partners.

These relatively new types of mobility hold great potential for connecting students, academics, researchers and administrators with foreign countries at different levels.

9 Research, development, artistic and other creative activities

9.1 Strengthening the link between creative and educational activities

Academic and research staff at the BUT strive to participate in research that will lead to significant new knowledge and that will have high application potential. One of the tools to achieve this goal is the involvement of the University in prestigious international and national projects in basic research, applied research or collaborative and contractual cooperation with industrial partners. The results generated from creative activities are incorporated in a short time frame into lectures, exercises and seminars for students of all accredited disciplines.

Each faculty has in its creative activity exclusive research directions linked to its current projects, in the solution of which it directly involves students and thus innovates individual forms of teaching. The direct connection of the results of all forms of creative activity with teaching enables future graduates of the BUT to obtain an adequate education with a high potential for employment on the international labour market in virtually all areas of advanced technology. The faculties and university institutes of the BUT cooperate significantly with companies, which, among other things, enable them to participate in teaching in the form of lectures, short seminars or full-day workshops. Students thus have the opportunity to obtain up-to-date information from practice, including information on research topics that are in the greatest social demand.

9.2 Involvement of students of bachelor's and master's programmes in creative activities

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

Students studying in the Master's and Doctoral programmes have the opportunity to apply for the Student Grant Competition within the framework of specific university research at the BUT. This competition emphasizes the strengthening of independent creative activities of students in cooperation with academic staff in the field of research and development. The projects allow for intensive involvement of students in the problem being addressed, especially in team research and development activities at faculties and university institutes. The grants announced annually within the framework of student-specific research contribute to increasing the quality and efficiency of scientific, research and artistic work, to the development of interdisciplinary fields in doctoral and postgraduate studies, to establishing international cooperation and to supporting the publication of results, which is in line with the Strategic Plan of the BUT. The grants are financed from the special-purpose support of the Ministry of Education and Science. In 2023, a total of CZK 84,716,157 supported 172 projects, of which 98 were junior (including 20 inter-faculty) and 74 standard. The main objective of inter-faculty projects is to promote interdisciplinary cooperation at the BUT and to make optimal use of new equipment, technology and infrastructure. The results of the solutions are defended at each faculty or university institute at student conferences organised at least once a year. The thesis referees are professors and associate professors of the BUT, and the committees also include experts from practice. These are mainly companies with which the BUT has established long-term cooperation or where BUT graduates find employment. Student conferences are an opportunity for students to present their level of knowledge, creative skills and research teamwork.

In 2023, faculties and university institutes organised or participated in the organisation of several student conferences. These included. Juniorstav and SVOČ 2023 conferences intended for all students of civil engineering, Student EEICT 2023 conference focused on electrical engineering, information and communication technologies, Excel@FIT 2023 in the field of information technology, Chemistry is life 2023 in the field of chemistry, 12th Annual Conference on Architecture and Urbanism 2023, Faculty Doctoral Conference for the presentation of results of specific undergraduate research projects FFA 2023 at the Faculty of Fine Arts BUT and Junior Forensic Science (JuFoS) 2023 for forensic engineering students.

Furthermore, students are involved in research activities within various projects announced by the TA ČR. These include, for example, the new SIGMA programme for the years 2022 to 2029, whose sub-objective No. 2 is to support early-career researchers, or the National Centres of Competence programme for the period 2023 to 2028, which focuses on supporting long-term cooperation between the research and application spheres and on strengthening the institutional base of applied research. The 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 a co-investigator in another eleven projects.

Students are also involved in creative activities through student professional teams, where they apply the knowledge they have gained at the university in practice. The largest of these teams is TU Brno Racing, which brings together students from across the university to jointly design, construct and test racing formulae. In addition, the ChickenWings team at the BUT promotes aviation through aircraft they develop themselves. Pneumobil Brno Racing builds racing vehicles powered by compressed air energy that can compete with the best European teams. The interfaculty student team machineLAB works on unique projects where its members try out technologies they would not normally have access to during their studies. The original idea of the Y Space student team was to develop a satellite mission that could be part of the European Space Agency's Fly Your Satellite programme. This would give the university and the students involved valuable experience in developing technologies for the space environment. In addition to developing the first student satellite in the Czech Republic, the students are connecting with local space-tech companies and spreading awareness of the space industry. Most of these teams also participate in international competitions and win interesting awards. The creative outputs of these students are presented to domestic and foreign visitors.

A great advantage of studying at the BUT is the opportunity to participate in research on highly topical topics through cooperation with companies. Companies interested in developing a new process, product or new idea can suggest a topic for a bachelor's or master's thesis and provide a professional supervisor who will consult with the student. Some faculties and institutes also offer the possibility of involving experts from practice in teaching, organising conferences or seminars, or introducing the environment of companies to students through excursions or work placements.

Within the framework of the Come to Business! project, the Faculty of Entrepreneurship of the BUT together with the South Moravian Innovation Centre prepared a university-wide course Development and Implementation of a Business Idea. This course is offered in both winter and summer semesters. At the same time, the fourth edition of the BUT Student Entrepreneurship Award competition was held. The final round with the participation of 10 finalists will take place in spring 2024.

The high professional quality of the creative activities of BUT students is evidenced by various other awards. For example, Barbora Šmahlíková from FIT BUT became the first recipient of the Government Award for Talented Student for Research Achievements, awarded by the Council for Research, Development and Innovation (RDVI) to the best student for exceptional talent and interest in research or scientific work. The student was later awarded the prestigious VCLA International Student Awards by the Vienna Centre for Logic and Algorithms, part of the Technical University of Vienna (TU Wien), for her outstanding undergraduate thesis.

An extensive list of award-winning students can be found in the Achievements and Awards section at the beginning of the Annual Report.

9.3 Dedicated research, development and innovation funding received in 2023

In 2023, BUT will receive a total of CZK 2 billion in R&D support, of which CZK 0.6 billion in institutional R&D support and CZK 1.4 billion in earmarked support for R&D projects in both current and capital funds. Of the total amount of earmarked funding for R&D projects, 836 million was obtained as principal investigator and 596 million as co-investigator.

Within the framework of cooperation on project solutions, the BUT transferred CZK 232 million to partners. The largest share is accounted for by subsidies obtained within the projects of the Ministry of Education and Science, TA CR, GA CR and the Ministry of the Interior.

9.4 Support for PhD students and post-doctoral fellows

BUT announces internal grant competitions for PhD students and post-doctoral researchers and provides them with project support and technology transfer support. They can also choose from further education, career counselling or mobility programmes, or take advantage of measures to reconcile personal and professional life. Further specific support for doctoral students and post-docs at the BUT is implemented at the level of individual faculties and university institutes. 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 funds of the Ministry of Education and Science allocated to BUT for specific university research. This grant competition is described in chapter 9.2.

A very important part of the support for doctoral students and post-doctoral fellows is the offer of continuing education. The Institute of Lifelong Learning at the BUT offers a range of courses aimed at acquiring knowledge and skills important for future careers, whether in academia and research, 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 on developing knowledge of working with various software, courses on the legal minimum and other practical skills (presentation skills, effective learning, stylistics of contemporary Czech, etc.). At the BUT, doctoral students have the opportunity to extend their qualifications by additional pedagogical studies. This is a one-year course provided by the ICV BUT, the proper completion of which will result in a certificate of completion. There are also language courses on offer, including Czech for foreigners and management courses. ICV BUT also offers career and psychological counselling.

Some faculties of the BUT collaborate in the implementation of doctoral studies with selected institutes of the Academy of Sciences of the Czech Republic, for example with the Institute of Analytical Chemistry, the Institute of Physics of Materials and the Institute of Instrumentation Technology on the basis of the Agreement on Cooperation in the Education of Doctoral Students.

BUT supports the mobility of PhD students and post-doctoral staff. Doctoral students are required to spend at least one month abroad during their studies to gain the necessary experience. An alternative is to participate in an international creative project with results published or presented abroad, or to involve the PhD student in another form of direct participation in an international collaboration. During their stay abroad, PhD students are financially supported by institutional support projects, under which the University has set aside a special PhD student mobility project. The BUT has also allocated a contribution for the support of international cooperation from the Ministry of Education and Science for foreign stays of doctoral students and academic staff. Recruitment of PhD students and post-docs from abroad is also a key priority for the BUT.

The quality of the work of PhD students or post-doctoral fellows is evidenced, among other things, by the number of awards they have received for their work in 2023. In the framework of the Brno Ph.D. scholarship programme, the following awards have been made. Talent for the 25 best PhD students with exceptional results and the best proposed scientific projects, 7 PhD students from the BUT succeeded. The Werner von Siemens Prize for the third place in the Best Dissertation category went to Markéta Tesařová (supervisor Tomáš Zikmund) from CEITEC BUT for her thesis Quantitative 3D Characterization of Biological Structures by X-ray Computed Microtomography. Dr. Tesařová also received the Award for Excellence in Women's Scientific Work awarded by the Werner von Siemens Prize.

In the prestigious scientific competitions organized by the French Embassy in the Czech Republic, three doctoral students of the BUT have taken the top positions. An extensive list of students and graduates of doctoral studies can be found in the introductory part of the annual report in the chapter Achievements and Awards.

In the area of reconciling work and personal life, the BUT offers its employees flexible working hours, holidays beyond the scope of the law, sports activities, discounted meals in the form of a meal voucher, holiday accommodation and other employee benefits. The BUT also has a mini-nursery designed for short-term babysitting of BUT employees' children from 7 am to 5 pm.

9.5 Collaboration with the application sphere on the creation and transfer of innovations and their commercialization

The basic priority of the BUT Knowledge Transfer Department (KTU) in 2023 was the preparation of the transfer of competences in the field of knowledge transfer to individual faculties and university institutes, with the KTU continuing to provide methodological, administrative and legal support as needed. For this reason, a revision of the internal legislation was initiated and the first phase of training of knowledge transfer managers and persons in charge at the individual faculties and higher education institutes was carried out. Further training and transfer of experience from the OTP to faculties and higher education institutes is ongoing and will continue in 2024.

During 2023, a total of 41 new findings were reported by university staff. At the end of the year, the total number of registered findings reached 834. A total of 12 patent applications, including 2 foreign ones, were filed based on the decision of the Rector of the University to exercise the right to selected intellectual property. In addition, 30 utility model applications were filed in 2023. In 2023, the Brno University of Technology was granted a total of 8 foreign patents, 8 Czech patents and 36 utility models.

The vast majority of new research and development results, including inventions, were created in the framework of the University's cooperation with partners from the commercial sphere within the framework of TA ČR projects.

The total number of new projects submitted in 2023 was 265. 46 projects were successfully accepted, 87 projects have not yet been decided.

In 2023, a total of 12 new licence agreements were concluded, two of them in the Czech Republic and ten with foreign partners. The total number of license agreements in force at the end of the year was 71, a year-on-year decrease of 12.

The financial return from knowledge transfer, i.e. commercialisation of individual objects of industrial protection rights, amounted to CZK 1,802,000 in 2023. The largest share of this amount is the income from the licence agreement for the Rescue System for Unmanned Aerial Vehicles – approximately CZK 820,000. Interesting income was generated by the licence agreement for the Equipment for the reduction of cyanobacteria in water reservoirs – approx. CZK 151 thousand, as well as the licence agreement for the Interferometric system with spatial carrier frequency imaging in polychromatic radiation – approx. Income in excess of CZK 100 thousand was also generated by licence agreements for Infrared Sensing without Parallax and Control Unit for Pressure Sewer System with Automatic Flushing.

In 2023, attention was paid to supporting the creation of new spin-off and start-up companies of the BUT. It took a concrete form in the form of mentoring, which was offered and subsequently provided to participants of the student entrepreneurship competition and researchers considering the use of specific knowledge in the commercial sphere. As a result, two new BUT spin-offs and two new BUT start-ups were created during the year. This brings the total number of these companies to 10 at the end of 2023, including 8 spin-off companies and 2 start-up companies:

- Voda Brno s.r.o. and LTR s.r.o. are newly established spin-offs of the BUT, with which the University has concluded licence agreements;
- NetX Networks, a.s., ConWe s.r.o., NenoVision s.r.o., 3Deposition s.r.o. and RehiveTech, spol. s r.o. are existing spin-offs of BUT, where the contracts of ConWe s.r.o. and 3Deposition s.r.o. were extended during the year;
- Brnologic, spol. s r.o. is a spin-off with the participation of the BUT. The company was established in 2021 and the Faculty of Information Technology of the BUT participates in the project;
- TriCera s.r.o. changed from a spin-off of BUT to a start-up of BUT during 2023. The reason for this was the interest in continuing the company's cooperation with the university;
- Scicake s.r.o. is a newly established start-up BUT, which deals with the issue of using artificial intelligence.

Three projects of new spin-off and start-up companies of the BUT are currently under development. The individual projects involve the Faculty of Electrical Engineering and Communication, the Faculty of Mechanical Engineering, the Faculty of Civil Engineering and the Faculty of Business.

9.6 Support for horizontal (intersectoral) mobility and training aimed at developing competences for innovative entrepreneurship

Entrepreneurial thinking is actively developed at BUT within the contriBUTe programme, www.vut.cz/contribute. The contriBUTe innovation and entrepreneurial ecosystem, which aims to educate, inspire and connect students and employees across the BUT, supports the development of ideas and innovative thoughts through problem solving and their transformation into concrete results that benefit society and contribute to business development.

Roundtables, workshops and other programmes were organised in 2023:

- Round table Entrepreneurship from my point of view, during which representatives of the academic community, representatives of the South Moravian Region, entrepreneurs and investors discussed topics related to entrepreneurship and its support in the context of knowledge transfer. Together, they concluded that the academic environment, especially technical universities, is also an important initiator and incubator of entrepreneurial activities, not only on the basis of the transfer of research and development results of their academic and scientific staff, but also the creative activities of students, and can significantly contribute to the development of the business environment within its area of competence.

- Discussion workshop Entrepreneurship at BUT? Why (not) do we want to develop entrepreneurship at the university? Why (don't) we want start-up and spin-off companies? Why can I (not) have anything to do with university entrepreneurship?

- The Summer School of Entrepreneurship and Innovation 2023, with international participation, focused from different angles on the following topics: how to turn ideas and innovations that are generated at university into successful businesses? How is it done at Brno University of Technology? How to implement knowledge transfer? A special point of the programme were workshops and lectures prepared by representatives of Tampere University of Applied Sciences, who shared their experience with the Finnish approach to entrepreneurship development.

- A round table with the subtitle Start-up, spin-off or simply a start-up company? What to expect, what to prepare for and why it sometimes doesn't work out? One to two out of ten, that's roughly how the success statistics of start-up companies look like. Do other start-ups differ in their success rate? Why this is so and what to do to be among the successful ones in the statistics were the main topics of the round table discussion.

As part of the Come to Business! programme, which was integrated into the innovation and entrepreneurship ecosystem contriBUTe, the final round of the 3rd year of the BUT Student Entrepreneurship Award competition was held in 2023 and the first two rounds of the 4th year of this competition were implemented. The competition is open to all students of bachelor, master and doctoral programmes of the BUT. The purpose of the competition is to promote ideas and innovative thinking, to encourage their entrepreneurship and to realize the development of interest in entrepreneurship. Thanks to the competition, the BUT students will receive information about the idea with the possibility of validating its potential, realism and achievability of the goals. A secondary effect of the competition is the creation of an internal networking environment supporting entrepreneurship across the BUT student community. The amount distributed by the expert jury to support entrepreneurship among the competing teams is CZK 1 million for both the 3rd and 4th year of the competition. As in previous years, the South Moravian Innovation Centre (JIC) has participated in the implementation of the competition.

Within the framework of the Come to Business! programme, a semester-long university-wide course Development and Implementation of a Business Idea was also implemented for all BUT students in cooperation between the Faculty of Business and the South Moravian Innovation Centre (JIC). The aim of the course was to acquire the knowledge and skills needed to test the potential of a business idea in the market and to prepare a business plan, to promote creative thinking, planning and teamwork skills, to support the ability to assess and process the risks of implementation and to promote an innovative approach to problem solving. In 2023, 75 students across the BUT completed the course.

The topic of supporting intersectoral mobility and the development of education aimed at developing competences for innovative entrepreneurship was also regularly discussed by representatives of the BUT at the Innovation Council of the South Moravian Region, which is also a working group of the Regional Innovation Strategy of the South Moravian Region (RIS JMK), 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. The RIS South Moravian Region 2021–2027 Action Plan now includes some strategic projects of the BUT within the Jan Amos Komenský Operational Programme (OP JAK) focused on cutting-edge research and having a significant impact on the sectoral profile. The above-mentioned RIS JMK activity is newly supplemented by a project plan, namely the promotion of technical and natural science (STEM) fields for students in primary and secondary schools.

10 Significant events related to the quality and evaluation of the activities carried out in 2023

At the BUT, quality is considered an integral part of all activities, which is reflected in the concept of the Rules of the Quality Assurance System for Educational, Creative and Related Activities and the Internal Quality Assessment of Educational, Creative and Related Activities of the BUT, as well as in the internal regulations that were updated or newly issued in 2023. This view is shared at all levels of the University.

During 2023, work continued on strengthening quality management with the intention of usefulness and necessity of input data to support the strategic management of the BUT and individual faculties, which triggered a change in the concept of the quality management system, and at the same time the role of the AGM was clarified, where in the context of institutional accreditation, the AGM is mainly focused on the development and quality of study programmes and the educational process.

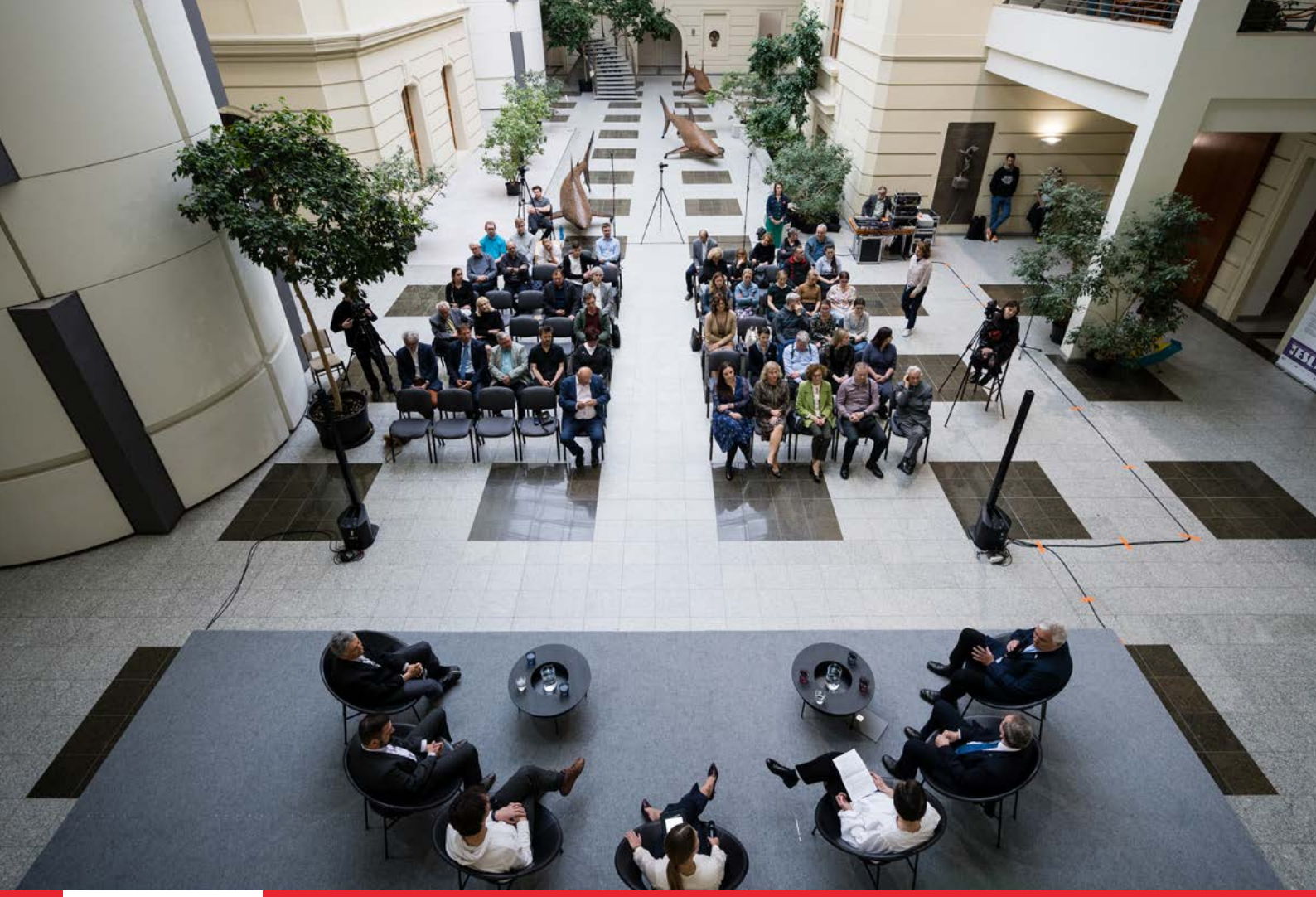
A set of quality indicators has been designed and compiled, which is also suitable for use within a management information system.

With regard to the combination of technical and artistic disciplines at the BUT, the qualitative outputs in the area of budget measures were also strengthened in 2023 to align the RUV and RIV approaches.

In order to strengthen the quality of scientific and creative activities, the disciplinary articulation in the context of the Methodology 17+ was completed and the first meeting of the International Scientific Council was held on 1 and 2 November 2023. In addition to discussions with the university and faculty leadership, the programme included visits to faculties and university institutes with the intention of evaluating scientific and creative activities. This evaluation is seen as a cornerstone for the preparation of a detailed evaluation of research, other creative activities and doctoral studies in 2024. The 2024 evaluation will take place at the level of individual departments and will be based on a peer review process.

Significant attention was paid to the preparation of the Report on the Internal Quality Assessment of Educational, Creative and Related Activities at the BUT for the period 2018–2022. The report was mainly based on the findings and results of the EUA institutional evaluation held at the BUT at the end of 2022 and monitoring of progress since 2018, when the previous EUA institutional evaluation took place. A Progress Report was produced towards the end of 2023 describing the University's response to the recommendations from the 2022 EUA Institutional Review.

Also in 2023, several analyses of the position of BUT within the world universities as well as domestic universities (especially technical universities) were carried out, while the needs and specifics of education at technical universities in the Czech Republic were also analysed. The analytical material on the issue of evaluation criteria in international rankings (THE, QS Ranking, ARWU) was updated. On the basis of this material, the weaknesses of the HEIs are strengthened. Selected specific criteria identified in the analyses of international rankings were also used for the preparation of the BUT Budget Rules for 2024.



11 National and International Excellence Colleges

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 selected international organisations in which representatives of the BUT are active:

Association of European Schools of Planning, The American Ceramic Society, Conference of European Schools of Advanced Engineering Education and Research (CESAER), 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 Science, 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 employees are active in a number of professional associations, organisations and societies. We can mention:

Association of University Libraries of the Czech Republic, Association of Mechanical Engineers, Association of Surveyors and Estimators 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 in Construction, Czech Foundry 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 Committee for Hydrology, Czech-Moravian Association of Businesswomen and Managers, Electrotechnical 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 Transfer Platform, Association for Railway Infrastructure, Association for the Rehabilitation of Concrete Structures, Society for Radioelectronic Engineering, Society for Environmental Technology, Association of Czech Booksellers and Publishers, Technical Standardization Commission of the Czech Standards Agency, Energy Safety Technology Platform, Scientific and Technical Society for Building Rehabilitation and Monument Care.

11.2 National and international BUT awards in 2023

An extensive list of awards is in the introductory part of the annual report under Achievements and Awards at the BUT. Brief mention can be made, for example, of the Werner von Siemens Prize, the Josef Hlávka Prize, the City of Brno Prize, the Brno Ph.D. Talent, the National Award for Student Design, the title of School Recommended by Employers, the Gold Medal of the International Engineering Fair and the Government Award for Talented Student.

11.3 International evaluation of BUT including foreign accreditations

In 2023, the International Scientific Council of the BUT was established, which is the key independent advisory body of the University, especially in the field of its strategic development and improving the quality of scientific, development, innovation and educational activities. In the same year, an internal evaluation of the BUT's scientific and artistic activities took place. This evaluation was carried out at the level of individual scientific areas and, in the case of art, at the level of artistic segments. It was based on benchmarking and self-evaluation. The feedback on the evaluation methodology was provided by the International Scientific Council of the BUT, which met in Brno on 1 and 2 November 2023. In addition to discussions with the university and faculty management, the programme included visits to faculties and university institutes. The 2023 evaluation and the feedback on it from the Council members became the cornerstone for the preparation of the detailed evaluation of research, other creative activities and doctoral studies in 2024. The 2024 evaluation will be carried out at the level of individual departments and will be based on peer review.

BUT's position in international university rankings

Brno University of Technology has long maintained a strong position among Czech universities and is also a respected institution internationally. This is evidenced by the ranking of the Technical University of Technology in the prestigious QS University Rankings, Times Higher Education and Academic Ranking of World Universities (ARWU).

QS University Rankings

In the main ranking published by Quacquarelli Symonds (QS World University Rankings), the BUT is ranked 611th–620th in 2023, the best result in the last 6 years. This means a move of 90 places compared to last year's ranking and also a position among the 41% of the top-ranked universities in the world compared to 49% last year.

The main contributors to the result were the share of international students, the university's reputation among employers and participation in international research networks. In all of these areas, the BUT is among the 400 highest ranked institutions. The most significant shift was achieved in the Employer Reputation indicator, where the university improved by 49 places to 280th place.

Among the 16 Czech universities in the ranking, the BUT took 5th place, with Charles University (248th), Masaryk University (400th), Czech Technical University in Prague (454th) and the University of Chemical Technology in Prague (556th) ahead of it.

In the European QS (QS Europe University Rankings), BUT reached 216th place among 688 ranked universities in Europe. The result means that BUT is among the top 32% of European universities and ranked 4th among Czech universities. The absolute winner of the first edition of the European ranking is Oxford University, which takes the top spot ahead of ETH Zurich and the University of Cambridge.

Times Higher Education World University Rankings

In the ranking published by the British magazine Times Higher Education, BUT moved from last year's 1201st to 1500th place to 1001st to 1200th place, with a total of 1904 universities from 108 countries.

Brno University of Technology moved up in the ranking thanks to higher scores achieved in the evaluation of citations, internationalisation and especially in the area of cooperation with industry, where it took first place among Czech universities.

Among Czech universities, BUT moved up from eleventh to sixth place (depending on the score achieved, depending on the range of positions from fifth to eighth), behind Charles University (401.–500. Ranking), Masaryk University (601st–800th), Palacký University in Olomouc (801st–1000th), Czech University of Agriculture in Prague (801st–1000th) and the University of South Bohemia in České Budějovice (1001st–1200th).

In the disciplinary rankings, BUT performed best in the categories of business and economics and in computer science. In both of them, the BUT was ranked 501st–600th, which also meant the 3rd position among Czech universities in both cases. In both of these rankings, BUT improved by 100 places compared to last year.

In the context of global and domestic competition, BUT achieved the best result in the ranking for engineering disciplines. In the global comparison, it was ranked 601st–800th, but faced more competition compared to the above rankings. The resulting ranking means a 200-place jump compared to last year and the first place among Czech universities.

BUT is also the best of all Czech schools in all related engineering subfields – chemical engineering, civil engineering, electrical engineering, general engineering and mechanical and aerospace engineering.

Academic Ranking of World Universities (ARWU)

In the Shanghai Academic Ranking of World Universities (ARWU) for 2023, the BUT is ranked between 701th and 800th. It has thus once again entered the top 1,000 universities in the world and improved by a total of 200 places compared to last year.

ARWU uses six objective indicators to rank universities around the world. The criteria include, for example, the number of articles published in Nature and Science and the citation response of publications. It also looks at the number of scientists in the Highly Cited Researches database, the number of Nobel Prize and Fields Medal winners associated with the institution, and the academic performance of the university converted into the number of its staff.

In the sectoral rankings, the BUT was ranked in four of them and it always meant the first place in the Czech Republic. These rankings were achieved by the BUT in exclusively engineering disciplines. The best ranking is in Nanoscience & Nanotechnology, where it shares the 201st–300th position with the University of Chemical Technology in Prague, which means the highest ranking within the Czech Republic. In the other three fields we find the BUT as the only representative from the Czech Republic. In Mechanical Engineering as well as in Energy Science & Engineering, BUT is ranked 301st–400th and in Electrical & Electronic Engineering 401st–500th.

12 The third role

12.1 Transfer of knowledge into practice

At the BUT, 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 internal environment of the BUT as one of the elements of active support for the commercial exploitation of intellectual property. The administrative and registration part and the university-wide support of IP protection processes fall within the agenda of the Technology Transfer Department of the BUT. As a modern university with a high scientific potential, the BUT concentrates on all areas of human activity and participates in research in areas of societal importance, be it the development of new technologies, human safety or environmental protection.

Researchers at FEEC BUT have developed innovative permanent magnet synchronous motors that are highly efficient and meet strict EU standards. The motors can be powered directly from the single-phase mains and are suitable for various household and industrial applications. They reduce energy consumption by up to 20%. They are highly efficient and meet the strictest standards. They are powered directly from the single-phase mains. They are suitable for heat pumps, fans, washing machines, refrigerators and other equipment. Thanks to their characteristics, these motors contribute to sustainable development and the reduction of CO2 emissions. The project was co-financed with state support from the Technology Agency of the Czech Republic under the THÉTA 3 Programme.

A new generation of implants or unique materials for industry and transport. These and many other results are being pursued by scientists from five Czech institutions who have jointly succeeded in the cutting-edge research grant challenge. The project Mechanical Engineering of Biological and Bioinspired Systems, spearheaded by the Faculty of Mechanical Engineering at the BUT, received the highest score out of 75 applications submitted and was recommended for funding with a half-billion-dollar budget over five years. Work on the research officially started in early September 2023.

BUT introduced a test platform for ground-based simulation of space missions. It is a new HELP habitat for astronauts' life safety in inhospitable environments. It was presented by Vratislav Šálený from FME at the Get-together: Analogue missions event, which deals with the topic of analogue missions – simulations of missions in any alien environment, including on another planet.

The PREDIKT-C program is a software tool developed at the Institute of Structural Mechanics FCE BUT in cooperation with MORAVIA CONSULT s.r.o. with the support of the TA ČR project TH04010138. During its development, the requirements for its practical use in design offices involved in the design and assessment of building structures, mainly civil engineering structures and bridges, and for the potential needs of administrators of reinforced concrete buildings, mainly civil engineering structures and bridges, were reflected. Other applications are found in research institutes dealing with research projects focusing on durability, reliability and sustainability of transport infrastructure structures and also in educational institutions for teaching and training future civil engineers.

Within the research project TH04020431 supported by TA CR in the Epsilon programme, a new Methodology for testing the tensile strength of FRP reinforcement and cohesion of FRP reinforcement with concrete under the effect of high temperatures and fire and for design of concrete structures loaded by the effects of high temperatures and fire was developed. The result was achieved by long-term cooperation of the Institute of Concrete and Masonry Structures FCE BUT with Prefa Brno and Prefa KOMPOZITY, the leading manufacturers of FRP reinforcement in the Czech Republic. To achieve this unique result, not only within the Czech Republic but also on a global scale, it was necessary to carry out an extensive experimental procedure. In particular, the aim was to describe the test procedures for describing the behaviour of FRP reinforcements with the influence of high temperatures over the whole temperature range. The methodology significantly extends and complements the existing standard codes in this area of design and can be an important step for the innovation of existing standards.

The Technology Agency of the Czech Republic (TA ČR) announced the results of the first public competition of the Programme for Support of Applied Research and Innovation SIGMA – Sub-objective 3 – Support of the innovation potential of social sciences, humanities and arts. Out of 379 submitted projects, 64 applications were supported. The first place among the evaluated applications went to the project Educational computer game on the position of Roma in society, which was prepared by academic and scientific researchers of the BUT Faculty of Science. The project, which will be implemented over the next three years, aims to formally and substantively expand existing educational materials for the second level of primary education. The project will confront the currently prevalent use of sandbox games or text-based or point-and-click adventure games by taking a comprehensive approach to the development of game mechanics using current knowledge in the field of serious games, game rhetoric and ludology in general. The content and the formal design expect a continuous involvement of the actors concerned – Roma, learners, educators and relevant professional organisations – in order to ensure, on the one hand, the applicability of the game in the educational process and, on the other hand, to create a communicative space for the authentic expression of Roma

Fourteen students from the studio of Barbara Ponešová, Kristýna Smržová and Marek Štěpán from the Faculty of Architecture of the BUT explored the possibilities of wood

as a building material. In the course of the project, dozens of designs were created, three of which – Woman, Man and Nest – were implemented in the village of Lelekovice.

The experimental buildings built by the hands of young architects are open to the public throughout the year.

12.2 Working in the region, cooperation with regional governments and important institutions in the region

In the past year, the BUT was intensively involved in the development and support of regional activities. The University is part of the innovation ecosystem of the South Moravian Innovation Centre (JIC), which connects companies, research organisations and public institutions. Together they create conditions for the development of entrepreneurship and innovation with an emphasis on quality work and strong relationships.

For example, three projects from the BUT succeeded in the December round of the Prototype and Verify programme, which JIC co-organises with the City of Brno to support start-up business plans. These projects were among the four successful ones, which shared the amount of CZK 2.2 million. Among the awarded projects from the BUT were an AI system for the diagnosis and therapy of speech disorders, innovative and battery-powered technology for a student team, and new gaming equipment for airsoft, laser game and paintball.

The award of the Deputy Governor of the South Moravian Region for the best student thesis on the environment and ecology related to the territory of the South Moravian Region was awarded to Jan Vespalec, a PhD student from the Faculty of Chemistry, for his diploma thesis Classification of concentrate from membrane processes.

In May, the University organized a roundtable on the topic of Technology vs. Ethics. The intention was to uncover less expected links to the topic through discussion with experts from different fields. Mathematician Miloslav Druckmüller, physician Břetislav Lipový, sociologist Kateřina Nedbálková, digital designer Lukáš Pilka, Director of the Technical Museum in Brno Ivo Štěpánek and Rector of the Brno University of Technology Ladislav Janíček took part in the debate as guests.

BUT is a member of the Life Sciences 4.0 platform, which was established by the Regional Chamber of Commerce to support and develop innovations in pharmaceutical production, telemedicine, green transition and other disciplines related to life sciences. Brno has the ambition to become a centre of biotechnology research and education, and this platform is a key step towards achieving this goal.

The 11th International Conference on Biopolymers European Symposium on Biopolymers, organized by FCH, took place in September at the Brno Observatory and Planetarium. The conference was attended by more than 150 experts ranging from molecular biologists and biotechnologists to experts in the characterisation and processing of biopolymers to application specialists in fields such as agriculture, cosmetics and medicine.

For the third time, BUT joined the charity collection Pie for Hospice, which was organized by the Diocesan Charity of Brno on 4 October 2023 to support health and social services for terminally ill people. Students and employees of the BUT operated four stalls and one mobile unit, where they offered cakes to donors. They contributed a record amount of CZK 94,350.

In March, seven PhD students from the Brno University of Technology received a scholarship cheque for their further research within the Brno Ph.D. talent programme during a gala evening at Brno City Hall. Each of them received a scholarship of CZK 330,000 for the next three years. The awardees are working on algorithm development, diagnostics of electric drives or detection of plastics in the human body.

Athletes from BUT are among the most successful academic athletes in Brno. This was confirmed by the March announcement of the top Brno academic athletes, where sports climber Šimon Potůček, triathlete Tomáš Kříž, ski orienteer and biathlete Ondřej Vystavěl and orienteer Martin Roháč, who represented the BUT at the 2022 Academic World Championships, were awarded.

The best student and doctoral theses in the field of civil engineering were evaluated in the Building of the South Moravian Region competition announced for FA and FCE students. A total of ten works were awarded, including three works by FA students and seven works by FCE students.

In June 2023, the laureates of the South Moravian Region Award for 2022, who have contributed to the development of the region, received their awards. Among the thirteen awardees are mathematician Miloslav Druckmüller from FME for his contribution in the field of science and sculptor Michal Gabriel from FFA for his contribution in the field of art.

12.3 Transregional impact 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 due to its competences in the field of 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. It aims to be in close and mutually open contact with society at national and international level.

In the winter semester 2023/2024, the American artistic duo MSHR (Brenna Murphy & Birch Cooper), internationally recognized for their distinctive audiovisual work and cross-genre symbiosis with a distinctive aesthetic, has accepted an invitation to head the FAVU Visiting Teachers Studio. Their proposed program drew on their long experience working with the Oregon Painting Society art collective and hosting workshops related to art and new media forms – particularly the development of new systems that support the generative aspects of their artworks.

In the summer semester 2022/2023, the Visiting Teacher Studio was led by internationally renowned researcher Alma Leora Culén. Her tutorial in Research through Design was entitled Exploring Interactions with Self-made Digital Artefacts.

Research on university entrepreneurial ecosystems, comparison of best practices in the US and Europe and implications for newly built ecosystems, authored by Vít Chlebovský, is an international grant project funded by a Fulbright scholarship. The project involved qualitative research on leading US entrepreneurial ecosystems through observations, in-depth structured and semi-structured interviews, as well as direct participation in university entrepreneurship center programs. The research was conducted at universities in Ohio (CWRU), California (Stanford and Berkeley) and Massachusetts (MIT). The findings focusing on organisation, programmes, funding, future challenges, motivation and student perspectives are further compared with ecosystems in Europe in the form of best practices. Sharing of research outputs is mainly done through a series of workshops in the US, the Czech Republic and other European countries. The outputs in the form of recommendations will be useful not only for the author's home university, but for all university entrepreneurial ecosystems that are at a similar stage of development.

ISTI BUT as one of 23 organizations from all over the world participated in the preparation and organization of the world's largest conference in the field of traffic accident analysis WREX 2023 (www.wrex.org) in Orlando, USA with the participation of about 1 300 people from 28 countries. The Institute staff co-authored one of the presented lectures and the Institute's PhD students were involved in the on-site implementation of the crash tests as a partner institution. The event also included a stand set up by the BUT Institute, where the issue of deformation of vehicle bulb filaments during vehicle impact was presented.

At the international annual conference of the European Association for Accident Research and Analysis (EVU) in Limassol (Cyprus), two papers by the staff of the BUT Institute received excellent evaluations.

Chris Kogler from BOKU University of Vienna has been involved in teaching the Expert Engineering in Transportation programme and preparing students for the international Wood Supply Game competition, which will see them compete against university teams from around the world in 2024.

Alex Bykov from FA BUT was a co-author of the Ukrainian pavilion at the Venice Biennale. The project, entitled March On, conveys the struggle of Ukrainians for independence, their determination to defend their rights and freedom, to stand up for the lives of their citizens, their territorial integrity, while finding solidarity with the entire civilized world for their efforts.

A significant step in the field of nanophotonics has been made by scientists at Stanford University. They have found a way to increase the intensity of terahertz electromagnetic waves, while showing another way to control them. They published their discovery in the prestigious journal Science. Among the authors are Radek Kalousek and Martin Hrtoň from FME BUT, who provided the necessary theoretical model and calculations for the research. Terahertz waves may be interesting in the future, for example, for the development of communication technologies.

Martin Vrbka, who heads the biotribology research group at the FME BUT, is one of the five laureates of the GA ČR Chairman's Award for 2023. The award is regularly given for exceptional results achieved in the course of grant projects funded by the agency. Professor Vrbka was awarded in the Technical Sciences category for his project on the effect of joint fluid viscosupplementation on friction and lubrication in natural joints. This is only the second time in the history that the BUT has received the Chairman's Award of the GA of the Czech Republic.

Jaroslav Hrubý, a student of the Forensic Engineering doctoral program, has become a long-term intern and a member of the support team of the Center for Infrastructure, Energy, and Space Testing at the University of Colorado in Boulder, USA. He is involved in the experimental research and publication activities of the center in the area of modeling seismic activity in relation to its impact on the environment and infrastructure.

13 Areas of well-being, gender equality and sustainability

13.1 Areas of well-being

At BUT, we see well-being as an important factor in achieving our mission and building a thriving university. That is why we place emphasis on promoting the development and satisfaction of all members of our community – academics, researchers, creators, students and administrative and technical staff.

We believe that happy and motivated people lead to better results. That's why we strive to create an inspiring and inclusive environment that supports:

- **Professional and personal development:** we offer a wide range of programmes and opportunities for continuing education and skills development, whether for academics, teachers, students, administrators or technicians.
- **A healthy and balanced working environment:** We promote healthy lifestyles and work-life balance, for example through flexible working hours, mental health programmes and relaxation zones in the workplace.
- **Collaboration and community building:** we strive to build a strong and cohesive community where everyone feels welcome and respected. We organise joint events, support student societies and ensure open communication between all members of the university.
- **Resilience and stress management:** we believe it is important to be able to manage stress and challenging situations. That's why we offer resilience-building programmes, relaxation techniques and psychological counselling.

Qualities we consider crucial to our success:

- **Responsibility:** every member of our community is responsible for their own development and for actively contributing to the prosperity of the university.
- **Professionalism:** we ensure a high level of professionalism and quality of work in all areas.
- **Cooperation:** we believe that achieving common goals is only possible through effective cooperation and mutual respect.
- **Openness and inclusiveness:** we create an environment that is open to all, regardless of their background, views or beliefs.

13.2 Gender equality

During the year 2023, the BUT gradually implemented the defined goals set in the BUT Gender Equality Plan 2022–2024. Workshops on the topic of gender dimension in research and projects were held and were open to both academic and non-academic community. The BUT Gender Equality Plan 2022–2024 was very positively evaluated by the report of the Institute of Sociology of the CAS from January 2023. Gender equality is one of the fundamental values of the European Union and the European Research Area. Gender Equality Plans are a tool for achieving institutional change in the field of gender equality, which is now widely recognised and supported, and are also an integral condition for project evaluation. The BUT will continue to strive to integrate gender issues, equal opportunities and reconciliation of work/study and personal life into the organisational processes, culture and values of the University, including the support and development of staff and learners.

BUT is increasingly committed to providing a positive and permanently safe environment for students and staff to study and work. However, the whole issue of social safety is all the more sensitive because harassment is perceived on a very individual basis. For this reason, the position of Social Safety Coordinator (ombudsperson) was established at the beginning of 2023 and is held by Ing. Bohdana Šlégrová. Already in 2022, the website Social Security of Employees was created and a statement of the Rector on the intolerance of undesirable behaviour at the University was issued. The BUT started working on a systematic solution in this area across the university in spring 2023. Social safety focal points were appointed in each faculty, university department and unit, drawn from staff and students. During the year, internal standards on social safety were issued and training of academic and non-academic staff was conducted. Engagement and interaction with learner representatives on this issue has been very beneficial. The BUT was also involved in the Academic Ethics project in 2023, which included the Prevention of Unethical Conduct on Campus and the promotion of competencies in victim care. 26 universities from the Czech Republic were involved in this project.

13.3 Sustainability

Brno University of Technology is active in the field of sustainability and environmental responsibility. The university has set itself the goal of actively contributing to sustainable development not only in the field of science and research, but also in all aspects of its operations and everyday life.

BUT is aware that all its activities have a society-wide impact and influence not only the world we live in now, but also the conditions in which future generations will operate. That is why it must respect and actively promote the principle of sustainability in all its activities.

BUT focuses its activities mainly on the following areas:

Education

- Students are educated to become not only experts in their respective fields, but also individuals who promote a responsible and respectful approach to the world around them.

Science and research

- From the position of a technical university, BUT's main asset is its ability to develop new solutions leading to a better, more sustainable and safer life.

Operation of the University

- The BUT promotes a responsible approach to building and maintaining the university infrastructure and the economical management of energy resources, water and waste.

The third role

- BUT is an open institution with the potential to respond to and influence events in society.

One of the important achievements of BUT is the implementation of strategies to reduce greenhouse gas emissions and conserve energy. By reducing its carbon footprint, it has achieved significant energy savings and contributed to environmental protection. In addition, the university has invested in upgrading its facilities and infrastructure to make them more energy efficient and environmentally friendly.

Another important step towards sustainability was the introduction of recycling and waste management programmes. The focus is on minimising the amount of waste produced at the University and maximising opportunities to recycle and reuse materials. Regular awareness raising events and campaigns are organised to raise awareness of the importance of recycling and responsible waste management.

In the field of research, the faculties focus on innovative projects that provide solutions for sustainable development. From developing new renewable energy technologies to studying the impacts of climate change on ecosystems; the University's research efforts contribute to understanding and addressing global environmental challenges.

Goals for the future include the development of further innovative technologies and processes. The BUT intends to continue to foster sustainability awareness among students, employees and the public and to motivate them to take actions that contribute to environmental protection. It also plans to continue to support research into sustainable development and the search for new ways to use resources more efficiently and minimise negative impacts on the planet.

The University's strategy for implementing long-term sustainable operations will be included in the forthcoming BUT Sustainability Strategy document, which is expected to be completed in early 2025.

14 TABULAR PART

OF THE ANNUAL REPORT ON THE ACTIVITIES OF THE BUT FOR THE YEAR 2023

Table 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										
ISCED-F broadly defined fields	code									
Natural Sciences, Mathematics and Statistics	05	1	0	0	0	1	0	2	2	6
Technology, manufacturing and construction	07	9	2	0	0	13	2	11	13	50
Faculty total	**X**	**10**	**2**	**0**	**0**	**14**	**2**	**13**	**15**	**56**
Faculty of Mechanical Engineering										
ISCED-F broadly defined 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, manufacturing and construction	07	9	2	0	0	19	4	17	17	68
Services	10	1	0	0	0	0	0	0	0	1
Faculty total	**X**	**12**	**2**	**0**	**0**	**24**	**4**	**19**	**19**	**80**
Faculty of Electrical Engineering and Communication										
ISCED-F broadly defined 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, manufacturing and construction	07	7	4	0	0	21	5	12	12	61
Faculty total	**X**	**10**	**4**	**0**	**0**	**23**	**5**	**17**	**17**	**76**
Faculty of Architecture										
ISCED-F broadly defined fields	code									
Technology, manufacturing and construction	07	2	0	0	0	2	0	2	2	8
Faculty total	**X**	**2**	**0**	**0**	**0**	**2**	**0**	**2**	**2**	**8**
Faculty of Chemistry										
ISCED-F broadly defined fields	code									
Natural Sciences, Mathematics and Statistics	05	3	2	0	0	3	2	9	9	28
Technology, manufacturing and construction	07	4	4	0	0	3	2	4	5	22
Faculty total	**X**	**7**	**6**	**0**	**0**	**6**	**4**	**13**	**14**	**50**
Faculty of Business and Management										
ISCED-F broadly defined 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										
ISCED-F broadly defined 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										
ISCED-F broadly defined 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										
ISCED-F broadly defined fields	code									
Technology, manufacturing and construction	07	0	0	0	0	2	0	2	2	6
Services	10	0	0	0	0	1	0	0	0	1
Total workplaces	**X**	**0**	**0**	**0**	**0**	**3**	**0**	**2**	**2**	**7**
Centre of Sports Activities										
ISCED-F broadly defined fields	code									
Technology, manufacturing and construction	07	1	0	0	0	0	0	0	0	1
Total workplaces	**X**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**
CEITEC BUT										
ISCED-F broadly defined fields	code									
Natural Sciences, Mathematics and Statistics	05	0	0	0	0	0	0	2	2	4
Total workplaces	**X**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**2**	**4**
Brno University of Technology										
ISCED-F broadly defined 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	8	2	15	15	47
Information and communication technologies	06	5	0	0	0	6	0	9	9	29
Technology, manufacturing and construction	07	32	12	0	0	60	13	48	51	216
Services	10	1	0	0	0	1	0	0	0	2
TOTAL	**X**	**51**	**14**	**0**	**0**	**84**	**18**	**75**	**79**	**321**

Table 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										
ISCED-F broadly defined fields	code									
Natural Sciences, Mathematics and Statistics	05	0	0	0	0	0	0	1	1	2
Technology, manufacturing and construction	07	1	0	0	0	1	0	5	6	13
Faculty total	**X**	**1**	**0**	**0**	**0**	**1**	**0**	**6**	**7**	**15**
Faculty of Mechanical Engineering										
ISCED-F broadly defined fields	code									
Natural Sciences, Mathematics and Statistics	05	0	0	0	0	2	0	1	1	4
Technology, manufacturing and construction	07	1	0	0	0	2	0	6	6	15
Faculty total	**X**	**1**	**0**	**0**	**0**	**4**	**0**	**7**	**7**	**19**

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										
ISCED-F broadly defined fields	code									
Information and communication technologies	06	0	0	0	0	0	0	3	3	6
Technology, manufacturing and construction	07	1	0	0	0	11	0	6	6	24
Faculty total	**X**	**1**	**0**	**0**	**0**	**11**	**0**	**9**	**9**	**30**
Faculty of Architecture										
ISCED-F broadly defined fields	code									
Technology, manufacturing and construction	07	0	0	0	0	1	0	0	0	1
Faculty total	**X**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**1**
Faculty of Chemistry										
ISCED-F broadly defined fields	code									
Natural Sciences, Mathematics and Statistics	05	0	0	0	0	0	0	4	4	8
Technology, manufacturing and construction	07	0	0	0	0	1	0	0	1	2
Faculty total	**X**	**0**	**0**	**0**	**0**	**1**	**0**	**4**	**5**	**10**
Faculty of Business and Management										
ISCED-F broadly defined 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										
ISCED-F broadly defined 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										
ISCED-F broadly defined 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										
ISCED-F broadly defined fields	code									
Natural Sciences, Mathematics and Statistics	05	0	0	0	0	0	0	1	1	2
Total workplaces	**X**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**1**	**2**
Brno University of Technology										
ISCED-F broadly defined 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	7	7	16
Information and communication technologies	06	1	0	0	0	2	0	5	5	13
Technology, manufacturing and construction	07	3	0	0	0	16	0	17	19	55
TOTAL	**X**	**5**	**0**	**0**	**0**	**23**	**0**	**30**	**32**	**90**

Table 2.3: Joint/Double/Multiple Degree Study Programmes with Foreign HEIs

Brno University of Technology	Faculty of Mechanical Engineering
Programme name 1	**Production technology**
Partner organisations	Technische Universität Chemnitz (Německo)
Associated organisations	None
Type of programme (Joint/Double/Multiple Degree)	Double Degree
Type of programme (Bachelor's, postgraduate, Master's, Doctoral)	Bachelor
Number of active studies as of 31. 12.	0

Programme name 2	**Industrial Engineering**
Partner organisations	Art et Métiers ParisTech (Cluny, France)
Associated organisations	None
Type of programme (Joint/Double/Multiple Degree)	Double Degree
Type of programme (Bachelor's, postgraduate, Master's, Doctoral)	Master's degree
Number of active studies as of 31. 12.	0

Programme name 3	**Production systems**
Partner organisations	Technische Universität Chemnitz (Německo)
Associated organisations	None
Type of programme (Joint/Double/Multiple Degree)	Double Degree
Type of programme (Bachelor's, postgraduate, Master's, Doctoral)	Master's degree
Number of active studies as of 31. 12.	0

Programme name 4	**Applied and Interdisciplinary Mathematics**
Partner organisations	University of L'Aquila, Italy
Associated organisations	None
Type of programme (Joint/Double/Multiple Degree)	Double Degree
Type of programme (Bachelor's, postgraduate, Master's, Doctoral)	Master's degree
Number of active studies as of 31. 12.	9

Programme name 5	**Logistics Analytics**
Partner organisations	Molde University College – Specialized University in Logistics
Associated organisations	None
Type of programme (Joint/Double/Multiple Degree)	Double Degree
Type of programme (Bachelor's, postgraduate, Master's, Doctoral)	Master's degree
Number of active studies as of 31. 12.	0

Brno University of Technology	Faculty of Electrical Engineering and Communication
Programme name 1	**Telecommunications**
Partner organisations	Technische Universität Wien
Associated organisations	
Type of programme (Joint/Double/Multiple Degree)	Joint Degree
Type of programme (Bachelor's, postgraduate, Master's, Doctoral)	Master's degree
Number of active studies as of 31. 12.	1

Programme name 2	**Communications and Networking (Double-Degree)**
Partner organisations	University of Tampere, Finland
Associated organisations	
Type of programme (Joint/Double/Multiple Degree)	Double Degree
Type of programme (Bachelor's, postgraduate, Master's, Doctoral)	Master's degree
Number of active studies as of 31. 12.	12

Programme name 3	**Microelectronics (Double-Degree)**
Partner organisations	Northern Illinois University
Associated organisations	
Type of programme (Joint/Double/Multiple Degree)	Double Degree
Type of programme (Bachelor's, postgraduate, Master's, Doctoral)	Master's degree
Number of active studies as of 31. 12.	0

Programme name 4	**Bioengineering Double-Degree)**
Partner organisations	The University of Applied Sciences, Technikum Wien
Associated organisations	
Type of programme (Joint/Double/Multiple Degree)	Double Degree
Type of programme (Bachelor's, postgraduate, Master's, Doctoral)	Master's degree
Number of active studies as of 31. 12.	6

Programme name 5	**Electronics and Information Technologies (Double-Degree)**
Partner organisations	TU Tampere
Associated organisations	
Type of programme (Joint/Double/Multiple Degree)	Double Degree
Type of programme (Bachelor's, postgraduate, Master's, Doctoral)	Doctoral
Number of active studies as of 31. 12.	7

Brno University of Technology	Faculty of Chemistry
Programme name 1	**Environmental sciences and engineering**
Partner organisations	University of Koblenz-Landau (UKL), Germany
Associated organisations	
Type of programme (Joint/Double/Multiple Degree)	Double Degree
Type of programme (Bachelor's, postgraduate, Master's, Doctoral)	Master's degree
Number of active studies as of 31. 12.	16

Brno University of Technology	Faculty of Business and Management
Programme name 1	**European Business and Finance**
Partner organisations	Nottingham Trent University (GB), Karol Adamiecki University of Economics in Katowice (PL)
Associated organisations	
Type of programme (Joint/Double/Multiple Degree)	Joint Degree
Type of programme (Bachelor's, postgraduate, Master's, Doctoral)	Master's degree
Number of active studies as of 31. 12.	0

Brno University of Technology	Faculty of Information Technology
Programme name 1	**Computer vision**
Partner organisations	Lappeenranta-Lahti University of Technology LUT, Finland
Associated organisations	
Type of programme (Joint/Double/Multiple Degree)	Double Degree
Type of programme (Bachelor's, postgraduate, Master's, Doctoral)	Master's degree
Number of active studies as of 31. 12.	2

Brno University of Technology	CEITEC BUT
Programme name 1	**Advanced materials and nanosciences**
Partner organisations	Université Grenoble Alpes
Associated organisations	
Type of programme (Joint/Double/Multiple Degree)	Doube Degree
Type of programme (Bachelor's, postgraduate, Master's, Doctoral)	Doctoral
Number of active studies as of 31. 12.	0 – student defended 12. 5. 2023

Programme name 2	**Advanced materials and nanosciences**
Partner organisations	RWTH Aachen University
Associated organisations	
Type of programme (Joint/Double/Multiple Degree)	Doube Degree
Type of programme (Bachelor's, postgraduate, Master's, Doctoral)	Doctoral
Number of active studies as of 31. 12.	1 – contract in preparation

Programme name 3	Advanced materials and nanosciences
Partner organisations	Unversidad Carlos III de Madrid
Associated organisations	
Type of programme (Joint/Double/Multiple Degree)	Doube Degree
Type of programme (Bachelor's, postgraduate, Master's, Doctoral)	Doctoral
Number of active studies as of 31. 12.	1

Programme name 4	Advanced materials and nanosciences
Partner organisations	Alexander Dubček University of Trenčín
Associated organisations	
Type of programme (Joint/Double/Multiple Degree)	Double Degree
Type of programme (Bachelor's, postgraduate, Master's, Doctoral)	Doctoral
Number of active studies as of 31. 12.	1

Summary information on Table 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	11	5	17	
Number of active studies in the following programmes	0	53	9	62	

Table 2.4: Accredited study programmes implemented jointly with another university or public research institution based in the Czech Republic

Brno University of Technology	Faculty of Mechanical Engineering
Name of study programme 1	**Engineering mechanics**
The broadly defined field of ISCED-F	715
Partner university/institution	Institute of Physics of Materials of the CAS, v.v.i.
Type of programme (Bachelor's, postgraduate, Master's, Doctoral)	Doctoral
Number of active studies as of 31. 12.	19

Name of study programme 2	Material Sciences
The broadly defined field of ISCED-F	719
Partner university/institution	Institute of Physics of Materials of the CAS, v.v.i.
Type of programme (Bachelor's, postgraduate, Master's, Doctoral)	Doctoral
Number of active studies as of 31. 12.	5

Name of study programme 3	**Physical Engineering and Nanotechnology**
The broadly defined field of ISCED-F	533
Partner university/institution	Institute of Instrumentation of the CAS, v.v.i.
Type of programme (Bachelor's, postgraduate, Master's, Doctoral)	Doctoral
Number of active studies as of 31. 12.	15

Name of study programme 4	**Materials Sciences**
The broadly defined field of ISCED-F	719
Partner university/institution	Institute of Physics of Materials of the CAS, v.v.i.
Type of programme (Bachelor's, postgraduate, Master's, Doctoral)	Doctoral
Number of active studies as of 31. 12.	0

Name of study programme 5	**Applied Mechanics**
The broadly defined field of ISCED-F	715
Partner university/institution	Institute of Physics of Materials of the CAS, v.v.i.
Type of programme (Bachelor's, postgraduate, Master's, Doctoral)	Doctoral
Number of active studies as of 31. 12.	0

Name of study programme 6	**Physical Engineering and Nanotechnology**
The broadly defined field of ISCED-F	533
Partner university/institution	Institute of Instrumentation of the CAS, v.v.i.
Type of programme (Bachelor's, postgraduate, Master's, Doctoral)	Doctoral
Number of active studies as of 31. 12.	0

Brno University of Technology	**Faculty of Electrical Engineering and Communication**
Name of study programme 1	**Biomedical technology and bioinformatics**
The broadly defined field of ISCED-F	688
Partner university/institution	Masaryk University, Faculty of Medicine
Type of programme (Bachelor's, postgraduate, Master's, Doctoral)	Bachelor
Number of active studies as of 31. 12.	240

Name of study programme 2	**Audio engineering**
The broadly defined field of ISCED-F	714
Partner university/institution	JAMU in Brno, Faculty of Music
Type of programme (Bachelor's, postgraduate, Master's, Doctoral)	Bachelor
Number of active studies as of 31. 12.	165

Name of study programme 3	Audio engineering
The broadly defined field of ISCED-F	714
Partner university/institution	JAMU in Brno, Faculty of Music
Type of programme (Bachelor's, postgraduate, Master's, Doctoral)	Master's degree
Number of active studies as of 31. 12.	63

Brno University of Technology	CEITEC BUT
Name of study programme 1	**Advanced materials and nanosciences**
The broadly defined field of ISCED-F	
Partner university/institution	Institute of Physics of Materials of the CAS
Type of programme (Bachelor's, postgraduate, Master's, Doctoral)	Doctoral
Number of active studies as of 31. 12.	150

Summary information on Table 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 the following programmes	405	0	63	189	657

Table 2.5 Accredited study programmes implemented jointly with a higher vocational school

BUT does not have such study programmes.

Table 2.6: Courses of lifelong learning (LLL) at the university (number of implemented courses)

Brno University of Technology		Profession-oriented courses			Interest courses			U3V	Total
ISCED-F broadly defined 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	0	0	0	0	0	0
Education and upbringing	01	20	7	5	0	0	0	0	32
Arts and Humanities	02	0	0	0	0	0	0	23	23
Social Sciences, Journalism and Information Sciences	03	0	2	8	0	0	0	12	22
Business, Administration and Law	04	2	1	1	0	0	0	5	9
Natural Sciences, Mathematics and Statistics	05	0	0	0	1	3	0	4	8
Information and communication technologies	06	4	0	0	0	0	0	10	14
Technology, manufacturing and construction	07	13	21	6	0	0	0	14	54
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	3	3
Services	10	0	0	0	0	0	0	0	0
TOTAL	**X**	**39**	**31**	**20**	**1**	**3**	**0**	**71**	**165**

Table 2.7: Lifelong learning (LLL) courses at the university (number of participants, individuals)

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
ISCED-F broadly defined 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	0	0	0	0	0	0	0
Education and upbringing	01	125	256	46	0	0	0	0	427	0
Arts and Humanities	02	0	0	0	0	0	0	1,492	1,492	0
Social Sciences, Journalism and Information Sciences	03	0	22	91	0	0	0	139	252	0
Business, Administration and Law	04	86	8	29	0	0	0	197	320	0
Natural Sciences, Mathematics and Statistics	05	0	0	0	15	124	0	60	199	29
Information and communication technologies	06	38	1	0	0	0	0	104	143	0
Technology, manufacturing and construction	07	638	899	92	0	0	0	352	1981	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	68	68	0
Services	10	0	0	0	0	0	0	0	0	0
TOTAL	**X**	**887**	**1,186**	**258**	**15**	**124**	**0**	**2,412**	**4,882**	**29**

Table 2.8: Lifelong learning (LLL) courses at university (number of courses and participants) – microcredentials

Brno University of Technology		Number of courses			Total	Number of participants			Total
ISCED-F broadly defined fields	code	Profession-oriented	Inter-est	U3V		Profession-oriented	Inter-est	U3V	
Programmes and qualifications – general education	00				0				
Education and upbringing	01				0				
Arts and Humanities	02				0				
Social Sciences, Journalism and Information Sciences	03				0				
Business, Administration and Law	04				0				
Natural Sciences, Mathematics and Statistics	05				0				
Information and communication technologies	06				0				
Technology, manufacturing and construction	07				0				
Agriculture, forestry, fishing and veterinary medicine	08				0				
Health and social care, care for favourable living conditions	09				0				
Services	10				0				
TOTAL	**X**	**0**	**0**	**0**	**0**				

Table 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	120	0	0	0	30	0	3	0	153
Technology, manufacturing and construction	07	2,123	110	0	0	735	32	114	122	3,236
Faculty total	**X**	**2,243**	**110**	**0**	**0**	**765**	**32**	**117**	**122**	**3,389**
Of which number of women at FCE	X	864	43	0	0	355	16	33	38	1,349
Of which number of foreigners at FCE	X	487	11	0	0	140	7	22	12	679
Faculty of Mechanical Engineering										
Arts and Humanities	02	57	0	0	0	26	0	0	0	83
Natural Sciences, Mathematics and Statistics	05	71	0	0	0	59	0	5	2	137
Technology, manufacturing and construction	07	1,905	60	0	0	812	55	225	50	3,107
Services	10	57	0	0	0	0	0	0	0	57
Faculty total	**X**	**2,090**	**60**	**0**	**0**	**897**	**55**	**230**	**52**	**3,384**
Of which number of women at FME	X	193	5	0	0	100	6	38	4	346
Of which number of foreigners at FME	X	400	5	0	0	170	3	42	6	626
Faculty of Electrical Engineering and Communication										
Arts and Humanities	02	36	0	0	0	0	0	0	0	36
Information and communication technologies	06	417	0	0	0	165	0	36	20	638
Technology, manufacturing and construction	07	1,477	20	0	0	620	47	130	95	2,389
Faculty total	**X**	**1,930**	**20**	**0**	**0**	**785**	**47**	**166**	**115**	**3,063**
Of which number of women at FEEC	X	200	0	0	0	113	6	29	13	361
Of which number of foreigners at FEEC	X	501	0	0	0	227	19	45	16	808
Faculty of Architecture										
Technology, manufacturing and construction	07	381	0	0	0	140	0	42	8	571
Faculty total	**X**	**381**	**0**	**0**	**0**	**140**	**0**	**42**	**8**	**571**
Of which number of women at FA	X	227	0	0	0	90	0	21	3	341
Of which number of foreigners at FA	X	106	0	0	0	53	0	4	0	163
Faculty of Chemistry										
Natural Sciences, Mathematics and Statistics	05	346	23	0	0	183	17	92	8	669
Technology, manufacturing and construction	07	241	37	0	0	59	6	35	6	384
Faculty total	**X**	**587**	**60**	**0**	**0**	**242**	**23**	**127**	**14**	**1,053**
Of which number of women at FCH	X	346	34	0	0	156	15	70	8	629
Of which number of foreigners at FCH	X	158	11	0	0	54	3	27	1	254
Faculty of Business and Management										
Social Sciences, Journalism and Information Sciences	03	0	0	0	0	87	0	0	0	87
Business, Administration and Law	04	1,497	0	0	0	521	171	29	18	2,236
Faculty total	**X**	**1,497**	**0**	**0**	**0**	**608**	**171**	**29**	**18**	**2,323**
Of which number of women at FBM	X	644	0	0	0	303	87	20	5	1,059
Of which number of foreigners at FBM	X	388	0	0	0	122	32	4	5	551

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	220	0	0	0	100	0	56	2	378
Faculty total	**X**	**220**	**0**	**0**	**0**	**100**	**0**	**56**	**2**	**378**
Of which number of women at FFA	X	144	0	0	0	74	0	30	2	250
Of which number of foreigners at FFA	X	48	0	0	0	25	0	12	0	85
Faculty of Information Technology										
Information and communication technologies	06	2,035	0	0	0	504	0	88	54	2,681
Faculty total	**X**	**2,035**	**0**	**0**	**0**	**504**	**0**	**88**	**54**	**2,681**
Of which number of women at FIT	X	228	0	0	0	49	0	5	7	289
Of which number of foreigners at FIT	X	831	0	0	0	218	0	35	24	1,108
Institute of Forensic Engineering										
Technology, manufacturing and construction	07	0	0	0	0	158	0	14	15	187
Services	10	0	0	0	0	46	0	0	0	46
Total workplaces	**X**	**0**	**0**	**0**	**0**	**204**	**0**	**14**	**15**	**233**
Of which number of women at IFE	X	0	0	0	0	87	0	4	7	98
Of which number of foreigners at IFE	X	0	0	0	0	30	0	1	1	32
Centre of Sports Activities										
Technology, manufacturing and construction	07	50	0	0	0	0	0	0	0	50
Total workplaces	**X**	**50**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**50**
Of which number of women at CESA	X	17	0	0	0	0	0	0	0	17
Of which number of foreigners at CESA	X	13	0	0	0	0	0	0	0	13
CEITEC BUT										
Natural Sciences, Mathematics and Statistics	05	0	0	0	0	0	0	138	11	149
Total workplaces	**X**	**0**	**0**	**0**	**0**	**0**	**0**	**138**	**11**	**149**
Of which number of women at CEITEC BUT	X	0	0	0	0	0	0	63	2	65
Of which number of foreigners at CEITEC BUT	X	0	0	0	0	0	0	80	4	84
Brno University of Technology										
Arts and Humanities	02	313	0	0	0	126	0	56	2	497
Social Sciences, Journalism and Information Sciences	03	0	0	0	0	87	0	0	0	87
Business, Administration and Law	04	1,497	0	0	0	521	171	29	18	2,236
Natural Sciences, Mathematics and Statistics	05	537	23	0	0	272	17	238	21	1,108
Information and communication technologies	06	2,452	0	0	0	669	0	124	74	3,319
Technology, manufacturing and construction	07	6,177	227	0	0	2,524	140	560	296	9,924
Services	10	57	0	0	0	46	0	0	0	103
TOTAL	**X**	**11,033**	**250**	**0**	**0**	**4,245**	**328**	**1,007**	**411**	**17,274**
Of which number of women total	X	2,863	82	0	0	1,327	130	313	89	4,804
Of which number of foreigners total	X	2,932	27	0	0	1,039	64	272	69	4,403

Table 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, manufacturing and construction	07	3	0	0	0	3	0	1	3	10
Faculty total	**X**	**3**	**0**	**0**	**0**	**3**	**0**	**1**	**3**	**10**
Faculty of Mechanical Engineering										
Natural Sciences, Mathematics and Statistics	05	0	0	0	0	2	0	0	0	2
Technology, manufacturing and construction	07	25	0	0	0	16	0	3	0	44
Faculty total	**X**	**25**	**0**	**0**	**0**	**18**	**0**	**3**	**0**	**46**
Faculty of Electrical Engineering and Communication										
Information and communication technologies	06	0	0	0	0	0	0	7	1	8
Technology, manufacturing and construction	07	19	0	0	0	49	0	1	3	72
Faculty total	**X**	**19**	**0**	**0**	**0**	**49**	**0**	**8**	**4**	**80**
Faculty of Architecture										
Technology, manufacturing and construction	07	0	0	0	0	4	0	0	0	4
Faculty total	**X**	**0**	**0**	**0**	**0**	**4**	**0**	**0**	**0**	**4**
Faculty of Chemistry										
Technology, manufacturing and construction	07	0	0	0	0	8	0	0	1	9
Faculty total	**X**	**0**	**0**	**0**	**0**	**8**	**0**	**0**	**1**	**9**
Faculty of Business and Management										
Business, Administration and Law	04	80	0	0	0	33	0	0	3	116
Faculty total	**X**	**80**	**0**	**0**	**0**	**33**	**0**	**0**	**3**	**116**
Faculty of Fine Arts										
Arts and Humanities	02	0	0	0	0	7	0	0	0	7
Faculty total	**X**	**0**	**0**	**0**	**0**	**7**	**0**	**0**	**0**	**7**
Faculty of Information Technology										
Information and communication technologies	06	0	0	0	0	14	0	1	0	15
Faculty total	**X**	**0**	**0**	**0**	**0**	**14**	**0**	**1**	**0**	**15**
Brno University of Technology										
Arts and Humanities	02	0	0	0	0	7	0	0	0	7
Business, Administration and Law	04	80	0	0	0	33	0	0	3	116
Natural Sciences, Mathematics and Statistics	05	0	0	0	0	2	0	0	0	2
Information and communication technologies	06	0	0	0	0	14	0	8	1	23
Technology, manufacturing and construction	07	47	0	0	0	80	0	5	7	139
TOTAL	**X**	**127**	**0**	**0**	**0**	**136**	**0**	**13**	**11**	**287**

Table 3.3: Academic failure rate in the first year of study (%)

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	
Faculty of Civil Engineering	38.8	59.2	40.1	0.0	0.0	0.0	4.0	48.0	6.9	19.0	33.3	23.9	30.3
Faculty of Mechanical Engineering	40.8	36.7	41.0	0.0	0.0	0.0	8.0	28.0	9.3	12.8	36.4	18.9	30.6
Faculty of Electrical Engineering and Communication	44.5	80.0	46.4	0.0	0.0	0.0	25.4	72.5	29.8	14.9	40.0	17.6	40.5
Faculty of Architecture	16.3		16.3	0.0	0.0	0.0	7.0		7.0	25.0	50.0	33.3	13.6
Faculty of Chemistry	52.9	52.5	53.3	0.0	0.0	0.0	7.8	45.5	14.2	22.5	0.0	22.0	42.5
Faculty of Business and Management	35.9		35.9	0.0	0.0	0.0	17.9	37.0	22.8	37.5	25.0	35.7	30.6
Faculty of Fine Arts	9.9		9.9	0.0	0.0	0.0	12.2		12.2	0.0		0.0	9.9
Faculty of Information Technology	38.1		38.1	0.0	0.0	0.0	23.1		23.1	12.5	60.0	25.0	34.7
Institute of Forensic Engineering				0.0	0.0	0.0	50.7		50.7	40.0	66.7	50.0	50.6
Centre of Sports Activities	39.1		39.1	0.0	0.0	0.0							39.1
CEITEC BUT				0.0	0.0	0.0				13.9		13.9	13.9
Total BUT	**40.0**	**59.8**	**40.8**	**0.0**	**0.0**	**0.0**	**15.7**	**45.1**	**18.6**	**16.8**	**34.7**	**21.0**	**33.4**

Table 3.4: Scholarships to students by purpose of scholarship (number of individuals)

Brno University of Technology Purose of the scholarship	Number of students	The average amount of the scholarship (CZK)
for outstanding academic performance according to § 91 (2) (a)	1,182	11,000
for outstanding scientific, research, development, artistic or other creative achievements pursuant to § 91 (2) (b)	603	14,385
for research, development and innovation activities according to a special legal regulation, § 91 (2) (c)	1,078	37,298
in the case of a student's difficult social situation according to § 91 (2) (d)	6	15,833
in the case of a student's difficult social situation according to § 91 (3)	42	25,167
in cases of special consideration pursuant to Section 91 (2) (e)	14,245	6,974
of which accommodation scholarship	13,386	4,822
to support study abroad according to § 91 (4) (a)	824	46,766
to support studies in the Czech Republic according to § 91 (4) (b)	296	31,943
students of doctoral study programmes according to § 91 (4) (c)	1,125	100,702
other scholarships	0	0
TOTAL	**14,913**	**21,703**

Table 3.5: Average monthly income of doctoral students (natural persons)

Brno University of Technology	Presentation form			Combined and distance form			Total		
	number of students	scholar-ship	total income	number of students	scholar-ship	total income	number of students	scholar-ship	total income
Faculty of Civil Engineering	164	10,514	15,453	7	0	3,707	171	10,514	15,388
Faculty of Mechanical Engineering	264	11,481	17,441	10	0	13,891	274	11,481	17,423
Faculty of Electrical Engineering and Communication	204	9,857	17,645	32	0	11,278	236	9,857	17,419
Faculty of Architecture	47	10,417	13,687	7	0	5,988	54	10,417	13,400
Faculty of Chemistry	148	11,759	15,739	1	0	10,000	149	11,759	15,734
Faculty of Business and Management	42	10,328	16,248	4	0	16,096	46	10,328	16,245
Faculty of Fine Arts	56	13,881	19,224	1	0	51,000	57	13,881	19,302
Faculty of Information Technology	94	11,139	19,388	28	0	27,460	122	11,139	19,782
Institute of Forensic Engineering	18	9,569	17,995	3	0	15,500	21	9,569	17,946
Centre of Sports Activities	0	0	0	0	0	0	0	0	0
CEITEC BUT	149	10,250	19,907	0	0	0	149	10,250	19,907
TOTAL	**1,186**	**10,885**	**17,379**	**93**	**0**	**15,567**	**1,279**	**10,885**	**17,353**

Table 3.6: Students – numbers per 1 academic staff member

Brno University of Technology	Bachelor's studies		Master's studies		Follow-up Master's studies		Ph.D. studies		Total	
	women	total	women	total	women	total	women	total	women	total
Faculty of Civil Engineering	3.05	7.91			1.25	2.68	0.24	0.80	4.54	11.39
Faculty of Mechanical Engineering	0.60	6.50			0.32	2.88	0.13	0.85	1.05	10.23
Faculty of Electrical Engineering and Communication	0.90	8.76			0.53	3.74	0.19	1.26	1.62	13.75
Faculty of Architecture	5.40	9.06			2.14	3.33	0.57	1.19	8.11	13.58
Faculty of Chemistry	5.05	8.59			2.27	3.52	1.04	1.87	8.35	13.98
Faculty of Business and Management	9.61	22.35			5.82	11.63	0.37	0.70	15.81	34.68
Faculty of Fine Arts	2.76	4.21			1.42	1.92	0.61	1.11	4.79	7.24
Faculty of Information Technology	3.72	33.22			0.80	8.23	0.20	2.32	4.72	43.77
Institute of Forensic Engineering	0.00	0.00			6.17	14.47	0.78	2.06	6.95	16.53
Centre of Sports Activities	1.07	3.15			0.00	0.00	0.00	0.00	1.07	3.15
CEITEC BUT	0.00	0.00			0.00	0.00	2.07	4.74	2.07	4.74
TOTAL	**2.43**	**9.32**			**1.20**	**3.78**	**0.33**	**1.17**	**3.97**	**14.27**

Table 4.1: Graduates of accredited study programmes (number of graduates)

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	11	0	0	0	7	0	0	0	18
Technology, manufacturing and construction	07	343	6	0	0	344	13	0	20	726
Faculty total	**X**	**354**	**6**	**0**	**0**	**351**	**13**	**0**	**20**	**744**
Of which number of women at FCE	X	172	3	0	0	146	5	0	7	333
Of which number of foreigners at FCE	X	59	0	0	0	73	3	0	2	137
Faculty of Mechanical Engineering										
Arts and Humanities	02	17	0	0	0	10	0	0	0	27
Natural Sciences, Mathematics and Statistics	05	19	0	0	0	24	0	0	0	43
Technology, manufacturing and construction	07	436	11	0	0	427	38	15	22	949
Services	10	10	0	0	0	0	0	0	0	10
Faculty total	**X**	**482**	**11**	**0**	**0**	**461**	**38**	**15**	**22**	**1,029**
Of which number of women at FME	X	47	2	0	0	69	6	1	1	126
Of which number of foreigners at FME	X	74	1	0	0	83	6	2	2	168
Faculty of Electrical Engineering and Communication										
Arts and Humanities	02	26	0	0	0	0	0	0	0	26
Information and communication technologies	06	106	0	0	0	68	0	3	4	181
Technology, manufacturing and construction	07	246	4	0	0	192	17	1	9	469
Faculty total	**X**	**378**	**4**	**0**	**0**	**260**	**17**	**4**	**13**	**676**
Of which number of women at FEEC	X	66	0	0	0	45	1	3	3	118
Of which number of foreigners at FEEC	X	105	0	0	0	58	4	3	2	172
Faculty of Architecture										
Technology, manufacturing and construction	07	67	0	0	0	63	0	1	1	132
Faculty total	**X**	**67**	**0**	**0**	**0**	**63**	**0**	**1**	**1**	**132**
Of which number of women at FA	X	43	0	0	0	42	0	1	0	86
Of which number of foreigners at FA	X	19	0	0	0	20	0	0	0	39
Faculty of Chemistry										
Natural Sciences, Mathematics and Statistics	05	66	0	0	0	93	0	2	1	162
Technology, manufacturing and construction	07	68	1	0	0	39	6	5	6	125
Faculty total	**X**	**134**	**1**	**0**	**0**	**132**	**6**	**7**	**7**	**287**
Of which number of women at FCH	X	88	1	0	0	98	5	6	3	201
Of which number of foreigners at FCH	X	30	0	0	0	33	1	0	2	66
Faculty of Business and Management										
Social Sciences, Journalism and Information Sciences	03	0	0	0	0	51	0	0	0	51
Business, Administration and Law	04	402	0	0	0	189	45	1	4	641
Information and communication technologies	06	1	0	0	0	0	0	0	0	1
Faculty total	**X**	**403**	**0**	**0**	**0**	**240**	**45**	**1**	**4**	**693**
Of which number of women at FBM	X	218	0	0	0	114	27	1	2	362
Of which number of foreigners at FBM	X	90	0	0	0	56	7	0	1	154

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	42	0	0	0	35	0	2	4	83
Faculty total	**X**	**42**	**0**	**0**	**0**	**35**	**0**	**2**	**4**	**83**
Of which number of women at FFA	X	30	0	0	0	19	0	1	3	53
Of which number of foreigners at FFA	X	5	0	0	0	6	0	0	2	13
Faculty of Information Technology										
Information and communication technologies	06	329	0	0	0	144	0	1	11	485
Faculty total	**X**	**329**	**0**	**0**	**0**	**144**	**0**	**1**	**11**	**485**
Of which number of women at FIT	X	38	0	0	0	16	0	1	2	57
Of which number of foreigners at FIT	X	144	0	0	0	62	0	1	2	209
Institute of Forensic Engineering										
Technology, manufacturing and construction	07	0	0	0	0	30	0	0	2	32
Services	10	0	0	0	0	11	0	0	0	11
Total workplaces	**X**	**0**	**0**	**0**	**0**	**41**	**0**	**0**	**2**	**43**
Of which number of women at IFE	X	0	0	0	0	19	0	0	1	20
Of which number of foreigners at IFE	X	0	0	0	0	6	0	0	0	6
Centre of Sports Activities										
Technology, manufacturing and construction	07	6	0	0	0	0	0	0	0	6
Total workplaces	**X**	**6**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**6**
Of which number of women at CESA	X	0	0	0	0	0	0	0	0	0
Of which number of foreigners at CESA	X	2	0	0	0	0	0	0	0	2
CEITEC BUT										
Natural Sciences, Mathematics and Statistics	05	0	0	0	0	0	0	12	2	14
Total workplaces	**X**	**0**	**0**	**0**	**0**	**0**	**0**	**12**	**2**	**14**
Of which number of women at CEITEC BUT	X	0	0	0	0	0	0	3	1	4
Of which number of foreigners at CEITEC BUT	X	0	0	0	0	0	0	5	0	5
Brno University of Technology										
Arts and Humanities	02	85	0	0	0	45	0	2	4	136
Social Sciences, Journalism and Information Sciences	03	0	0	0	0	51	0	0	0	51
Business, Administration and Law	04	402	0	0	0	189	45	1	4	641
Natural Sciences, Mathematics and Statistics	05	96	0	0	0	124	0	14	3	237
Information and communication technologies	06	436	0	0	0	212	0	4	15	667
Technology, manufacturing and construction	07	1,166	22	0	0	1,095	74	22	60	2,439
Services	10	10	0	0	0	11	0	0	0	21
TOTAL	**X**	**2,195**	**22**	**0**	**0**	**1,727**	**119**	**43**	**86**	**4,192**
Of which number of women total	X	702	6	0	0	568	44	17	23	1,360
Of which number of foreigners total	X	528	1	0	0	397	21	11	13	971

Table 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	148	154	139	69	0	0	0	0	17	17	17	17	1	1	1	1
Technology, manufacturing and construction	07	1,478	1,701	1,396	846	0	0	0	0	450	497	386	339	49	52	41	40
Faculty total	**X**	**1,592**	**1,855**	**1,535**	**915**	**0**	**0**	**0**	**0**	**467**	**514**	**403**	**356**	**50**	**53**	**42**	**41**
Faculty of Mechanical Engineering																	
Arts and Humanities	02	70	70	28	28	0	0	0	0	19	19	16	13	0	0	0	0
Natural Sciences, Mathematics and Statistics	05	75	76	48	43	0	0	0	0	34	43	33	33	4	4	4	4
Technology, manufacturing and construction	07	1,461	1,656	1,042	879	0	0	0	0	622	785	547	420	67	69	61	57
Services	10	66	66	30	27	0	0	0	0	0	0	0	0	0	0	0	0
Faculty total	**X**	**1,617**	**1,868**	**1,148**	**977**	**0**	**0**	**0**	**0**	**671**	**847**	**596**	**466**	**71**	**73**	**65**	**61**
Faculty of Electrical Engineering and Communication																	
Arts and Humanities	02	20	20	13	13	0	0	0	0	0	0	0	0	0	0	0	0
Information and communication technologies	06	407	419	215	201	0	0	0	0	137	137	100	100	18	18	9	9
Technology, manufacturing and construction	07	1,219	1,424	768	715	0	0	0	0	585	646	385	362	30	31	26	24
Faculty total	**X**	**1,564**	**1,863**	**996**	**929**	**0**	**0**	**0**	**0**	**698**	**783**	**485**	**462**	**48**	**49**	**35**	**33**
Faculty of Architecture																	
Technology, manufacturing and construction	07	440	440	171	119	0	0	0	0	106	106	85	79	16	18	12	12
Faculty total	**X**	**440**	**440**	**171**	**119**	**0**	**0**	**0**	**0**	**106**	**106**	**85**	**79**	**16**	**18**	**12**	**12**
Faculty of Chemistry																	
Natural Sciences, Mathematics and Statistics	05	498	526	367	204	0	0	0	0	140	146	117	111	28	28	26	26
Technology, manufacturing and construction	07	266	297	208	116	0	0	0	0	57	58	34	33	9	9	8	8
Faculty total	**X**	**706**	**823**	**575**	**320**	**0**	**0**	**0**	**0**	**191**	**204**	**151**	**144**	**36**	**37**	**34**	**34**
Faculty of Business and Management																	
Social Sciences, Journalism and Information Sciences	03	0	0	0	0	0	0	0	0	80	80	33	33	0	0	0	0
Business, Administration and Law	04	1,820	1,986	794	794	0	0	0	0	697	785	410	383	15	15	11	11
Faculty total	**X**	**1,820**	**1,986**	**794**	**794**	**0**	**0**	**0**	**0**	**735**	**865**	**443**	**416**	**15**	**15**	**11**	**11**

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	662	670	66	59	0	0	0	0	114	114	51	50	19	20	11	10
Faculty total	**X**	**662**	**670**	**66**	**59**	**0**	**0**	**0**	**0**	**114**	**114**	**51**	**50**	**19**	**20**	**11**	**10**
Faculty of Information Technology																	
Information and communication technologies	06	1,899	1,909	1,247	792	0	0	0	0	411	430	344	224	40	41	28	26
Faculty total	**X**	**1,899**	**1,909**	**1,247**	**792**	**0**	**0**	**0**	**0**	**411**	**430**	**344**	**224**	**40**	**41**	**28**	**26**
Institute of Forensic Engineering																	
Technology, manufacturing and construction	07	0	0	0	0	0	0	0	0	175	180	144	130	15	15	10	9
Services	10	0	0	0	0	0	0	0	0	44	44	38	36	0	0	0	0
Total workplaces	**X**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**219**	**224**	**182**	**166**	**15**	**15**	**10**	**9**
Centre of Sports Activities																	
Technology, manufacturing and construction	07	48	48	25	24	0	0	0	0	0	0	0	0	0	0	0	0
Total workplaces	**X**	**48**	**48**	**25**	**24**	**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	49	50	33	19
Total workplaces	**X**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**49**	**50**	**33**	**19**
Brno University of Technology																	
Arts and Humanities	02	750	760	107	100	0	0	0	0	133	133	67	63	19	20	11	10
Social Sciences, Journalism and Information Sciences	03	0	0	0	0	0	0	0	0	80	80	33	33	0	0	0	0
Business, Administration and Law	04	1,820	1,986	794	794	0	0	0	0	697	785	410	383	15	15	11	11
Natural Sciences, Mathematics and Statistics	05	720	756	554	316	0	0	0	0	191	206	167	161	82	83	64	50
Information and communication technologies	06	2,212	2,328	1,462	993	0	0	0	0	537	567	444	324	58	59	37	35
Technology, manufacturing and construction	07	4,530	5,566	3,610	2,699	0	0	0	0	1,952	2,272	1,581	1,363	183	194	158	150
Services	10	66	66	30	27	0	0	0	0	44	44	38	36	0	0	0	0
University TOTAL	**X**	**9,311**	**11,462**	**6,557**	**4,929**	**0**	**0**	**0**	**0**	**3,469**	**4,087**	**2,740**	**2,363**	**354**	**371**	**281**	**256**

Table 6.1: Academic and scientific staff and other staff in total (average headcount)

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	297.454	38.275	69.646	156.649	31.751	1.133			2.963	17.995		179.262	497.674
of which women	79.012	3.991	8.628	54.016	12.244	0.133				3.908		104.023	186.943
Faculty of Mechanical Engineering	330.788	35.565	79.409	162.442	44.243	3.400	5.729		15.266	61.761		152.687	560.502
of which women	36.093	0.200	3.221	21.505	9.167	1.000	1.000		1.863	7.629		92.829	138.414
Faculty of Electrical Engineering and Communication	222.727	26.184	73.992	106.979	14.401	0.596		0.575	15.659	91.690		91.959	422.035
of which women	40.813	1.050	11.553	18.711	9.003	0.496			2.138	9.318		57.340	109.609
Faculty of Architecture	42.053	4.424	9.116	17.160	11.353				0.334	0.767		33.125	76.279
of which women	12.331	2.017	1.876	3.916	4.522				0.334	0.444		23.220	36.329
Faculty of Chemistry	75.309	15.199	15.252	38.389	0.746	0.800	4.923		2.755	21.556		70.151	169.771
of which women	28.066	2.463	6.000	15.376	0.000	0.800	3.427		1.379	10.802		52.908	93.155
Faculty of Business and Management	66.979	7.917	19.929	29.605	5.039	2.744	1.745			1.889		37.475	106.343
of which women	26.871	2.333	6.435	11.453	3.539	1.859	1.252			0.386		27.903	55.160
Faculty of Fine Arts	52.195	3.736	12.661	13.067	22.531	0.200			0.167	0.995		23.275	76.632
of which women	18.515	0.586	1.414	6.373	10.142				0.167	0.528		15.224	34.434
Faculty of Information Technology	61.253	7.631	20.817	29.080	2.072	1.653			9.569	53.341		83.705	207.868
of which women	3.108		0.924	2.184					3.438	2.299		56.048	64.893
Institute of Forensic Engineering	14.098	1.267	3.200	8.296	1.335					0.042		12.513	26.653
of which women	2.639			2.304	0.335							9.431	12.070
Centre of Sports Activities	15.884		1.100	7.784	7.000							15.680	31.564
of which women	7.484			4.484	3.000							11.563	19.047
CEITEC BUT	31.409		0.061	1.478			29.870		37.763	138.968		61.537	269.677
of which women	2.726		0.061	0.578			2.087		10.450	32.237		41.096	86.509
Other workplaces total	**1.000**			**1.000**						**0.334**		**493.765**	**495.099**
Numbers of women in other workplaces	0.000											318.338	318.338
TOTAL	**1,211.149**	**140.198**	**305.183**	**571.929**	**140.471**	**10.526**	**42.267**	**0.575**	**84.476**	**389.338**	**0.000**	**1,255.134**	**2,940.097**
Total women	257.658	12.640	40.112	140.900	51.952	4.288	7.766	0.000	19.769	67.551	0.000	809.923	1,154.901

Table 6.2: Age structure of academic, scientific and other staff (number 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 old					6	1	53	8	2	1					12	5	288	66			112	43	473	124
30–39 years old			29	3	234	51	64	18	7	1	22	3			129	27	174	30			236	118	895	251
40–49 years old	30	1	159	20	304	74	42	22	4	3	19	2			8	2	107	20			453	319	1,126	463
50–59 years old	33	3	75	8	62	25	20	10	2		3	1					31	6			346	253	572	306
60–69 years old	60	7	46	10	41	22	12	9	3	1	1		1				13	1			220	127	397	177
over 70 years old	52	6	42	3	14	3	1	0									15	1			40	22	164	35
TOTAL	**175**	**17**	**351**	**44**	**661**	**176**	**192**	**67**	**18**	**6**	**45**	**6**	**1**	**0**	**149**	**34**	**628**	**124**	**0**	**0**	**1,407**	**882**	**3,627**	**1,356**

Table 6.3: Numbers of academic and scientific staff according to the range of working hours and highest qualification attained (numbers of natural persons according to the range of working hours)

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	2	1	3		15	8	10	2	17	3	47	14
0.31–0.5	3		6		24	7	4	1	3		40	8
0.51–0.7	3		4	1	19	9	9	4	3	1	38	15
0.71–1	36	4	62	8	128	41	22	8	11	2	259	63
more than 1	2	1							1		3	1
TOTAL	**46**	**6**	**75**	**9**	**186**	**65**	**45**	**15**	**35**	**6**	**387**	**101**
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	9	1	14	1	15	6	8		37	4	83	12
0.31–0.5	3		9		13	5	6	1	30	7	61	13
0.51–0.7	3		9		8	2	12	2	17	2	49	6
0.71–1	28		70	3	151	19	22	7	44	4	315	33
more than 1	7		2		10	1			1		20	1
TOTAL	**50**	**1**	**104**	**4**	**197**	**33**	**48**	**10**	**129**	**17**	**528**	**65**
Faculty of Electrical Engineering and Communication												
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	7	1	6		6	2			56	8	75	11
0.31–0.5	2		6	2	6	1	2	1	25	2	41	6
0.51–0.7	2		3	2	7	3	1	1	28	4	41	10
0.71–1	23	1	59	10	92	17	10	7	63	6	247	41
more than 1	3		14		8				1		26	0
TOTAL	**37**	**2**	**88**	**14**	**119**	**23**	**13**	**9**	**173**	**20**	**430**	**68**

Brno University of Technology	Academic staff								Scientific staff		Total	Of whom women
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			1		1	1	8	5	3	2	13	8
0.31–0.5	1	1	1		1		7	1	1	1	11	3
0.51–0.7	2	1			2		2	1			6	2
0.71–1	3	1	8	2	13	3	9	4			33	10
more than 1											0	0
TOTAL	**6**	**3**	**10**	**2**	**17**	**4**	**26**	**11**	**4**	**3**	**63**	**23**
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	1				2	1			23	13	26	14
0.31–0.5	4	1			1		1		7	0	13	1
0.51–0.7	1				1	2			12	8	14	10
0.71–1	12	2	15	6	34	14	4	2	7	3	72	27
more than 1	1				1				1	1	3	1
TOTAL	**19**	**3**	**15**	**6**	**39**	**17**	**5**	**2**	**50**	**25**	**128**	**53**
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	3	1	1		6	3	3				13	4
0.31–0.5	2		2	1	2		2				8	1
0.51–0.7	2		1		1	1	1	1			5	2
0.71–1	5	2	16	5	26	10	4	3			51	20
more than 1			3	1	2	1					5	2
TOTAL	**12**	**3**	**23**	**7**	**37**	**15**	**10**	**4**	**0**	**0**	**82**	**29**
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							5	2	6	3	11	5
0.31–0.5			1		7	5	3	2			11	7
0.51–0.7	2				2	2	1				5	2
0.71–1	3	1	12	1	9	4	20	8			44	14
more than 1											0	0
TOTAL	**5**	**1**	**13**	**1**	**18**	**11**	**29**	**12**	**6**	**3**	**71**	**28**

Brno University of Technology							Academic staff		Scientific staff		Total	Of whom women
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			1		4	2			35	1	40	3
0.31–0.5	1		3		5		1		20	1	30	1
0.51–0.7			2		3				14	1	19	1
0.71–1	7		19	1	24	2	3		39	3	92	6
more than 1									1		1	0
TOTAL	**8**	**0**	**25**	**1**	**36**	**4**	**4**	**0**	**109**	**6**	**182**	**11**
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		3	1					4	1
0.31–0.5	1				1	1	2	2			4	3
0.51–0.7					1						1	0
0.71–1	1		3		7	2	1				12	2
more than 1											0	0
TOTAL	**2**	**0**	**4**	**0**	**12**	**4**	**3**	**2**	**0**	**0**	**21**	**6**
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		3	3					4	3
0.31–0.5											0	0
0.51–0.7											0	0
0.71–1			1		9	4	5	2			15	6
more than 1											0	0
TOTAL	**0**	**0**	**2**	**0**	**12**	**7**	**5**	**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					2				66	25	68	25
0.31–0.5			1		2	1			58	16	61	17
0.51–0.7			1	1	2				34	9	37	10
0.71–1	1		2		21				98	26	122	26
more than 1	1		2	1	2				15	2	20	3
TOTAL	**2**	**0**	**6**	**2**	**29**	**1**	**0**	**0**	**271**	**78**	**308**	**81**

Brno University of Technology	Academic staff								Scientific staff		Total	Of whom women
Total other workplaces												
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												
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	22	4	28	1	57	27	34	9	243	59	384	100
0.31–0.5	17	2	29	3	62	20	28	8	144	27	280	60
0.51–0.7	15	1	20	4	46	19	26	9	108	25	215	58
0.71–1	119	11	267	36	515	116	100	41	262	44	1263	248
more than 1	14	1	21	2	23	2	0	0	20	3	78	8
TOTAL	**187**	**19**	**365**	**46**	**703**	**184**	**188**	**67**	**777**	**158**	**2,220**	**474**
University TOTAL	**187**	**19**	**365**	**46**	**703**	**184**	**188**	**67**	**777**	**158**	**2,220**	**474**

Table 6.4: Managers (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	Senior management TOTAL
Rectorate	1	5	29	47	1	15			98
of which women	0	1	6	7	1	2			17
Faculty of Civil Engineering	1	5	36	44	1			23	110
of which women	0	0	8	5	1			2	16
Faculty of Mechanical Engineering	1	4	36	37	1			15	94
of which women	0	1	4	0	0			1	6
Faculty of Electrical Engineering and Communication Technologies	1	4	19	32	1			14	71
of which women	0	1	4	3	0			1	9
Faculty of Architecture	1	5	13	20	1			9	49
of which women	0	1	6	6	0			1	14

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	Senior management TOTAL
Faculty of Chemistry	1	4	15	35	1			5	61
of which women	0	1	1	6	0			1	9
Faculty of Business and Management	1	4	21	28	1			4	59
of which women	0	1	7	7	0			1	16
Faculty of Fine Arts	1	6	11	21	1			22	62
of which women	0	4	4	7	1			7	23
Faculty of Information Technology	1	5	13	28	1			5	53
of which women	0	0	0	3	0			0	3
IFE, CEITEC BUT and CESA				47	2		3	24	76
of which women				6	0		1	3	10
Total other workplaces				**0**	**0**		**5**	**0**	**5**
of which women				0	0		2	0	2
Faculties, institutes of higher education and other departments total	**8**	**37**	**164**	**245**	**8**		**8**	**121**	**640**
of which women	0	9	34	37	2		3	17	108
University TOTAL	**9**	**42**	**193**	**292**	**9**	**15**	**8**	**121**	**738**
of which women	0	10	40	44	3	2	3	17	125

Table 6.5: Academic and scientific staff with foreign citizenship (average recalculated numbers)

Brno University of Technology	Academic staff						Scientific and professional staff			Other employees
	Professors	Associate professors	Assistant professors	Assistants	Lecturers	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	0.000	1.000	4.891	1.866	0.000	0.000	0.859	3.309	0.000	2.792
in that: Germany										
Poland								0.329		
Austria								0.177		
Slovakia		1	3.891	1.199			0.638	2.105		2.792
other EU countries							0.221	0.698		
other non-EU countries			1	0.667						
women out of total (regardless of nationality)			0.991	1.27			0.167	0.35		0.878

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 Mechanical Engineering	0.000	0.150	7.271	6.164	0.000	0.000	5.542	10.326	0.000	4.128
in that: Germany										
Poland								0.414		
Austria		0.15								
Slovakia			6.271	4.829			2.423	3.585		3.405
other EU countries								0.949		
other non-EU countries			1	1.335			3.119	5.378		0.723
women out of total (regardless of nationality)			1	1.3			1.568	2.587		2.365
Faculty of Electrical Engineering and Communication	0.575	2.000	6.122	1.000	0.000	0.000	4.883	14.304	0.000	1.191
in that: Germany								1		0.762
Poland										
Austria										
Slovakia	0.575	2	3.076				2.689	7.668		0.014
other EU countries			0.046				0.289	1.040		
other non-EU countries			3	1			1.905	4.596		0.415
women out of total (regardless of nationality)		1	2.158				1.984	2.641		0.778
Faculty of Architecture	0.615	0.876	0.000	3.367	0.000	0.000	0.000	0.334	0.000	0.000
in that: Germany				0.268						
Poland				1.297						
Austria										
Slovakia	0.417	0.876		0.025						
other EU countries				0.919				0.334		
other non-EU countries	0.198			0.858						
women out of total (regardless of nationality)	0.417	0.876		0.999				0.334		
Faculty of Chemistry	1.049	0.414	0.000	0.000	0.000	0.496	2.122	3.517	0.000	3.455
in that: Germany								0.167		
Poland										
Austria										
Slovakia	1.049	0.414				0.496	2.122	1.338		1.998
other EU countries								1.275		
other non-EU countries								0.737		1.457
women out of total (regardless of nationality)	0.463						0.523	2.32		2.157

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	
Fakula podnikatelská	0.250	1.000	1.917	0.000	0.000	1.745	0.000	0.000	0.000	1.033
in that: Germany										
Poland			0.151							
Austria										
Slovakia	0.250		1.355							0.033
other EU countries			0.411			0.334				
other non-EU countries		1.000				1.411				1
women out of total (regardless of nationality)			1.766			1.252				1
Faculty of Fine Arts	0.000	1.000	3.589	4.058	0.000	0.000	0.000	0.300	0.000	1.186
in that: Germany										
Poland										
Austria										
Slovakia		1	2.089	2.636				0.3		1.186
other EU countries			1	1						
other non-EU countries			0.500	0.422						
women out of total (regardless of nationality)			2.589	2.847						0.167
Faculty of Information Technology	0.000	1.931	1.200	0.000	0.000	0.000	0.798	17.246	0.000	3.506
in that: Germany										
Poland										1
Austria										
Slovakia		1	0.2					9.566		1.757
other EU countries			1				0.614	0.186		
other non-EU countries		0.931					0.184	7.494		0.749
women out of total (regardless of nationality)							0.213	4.844		0.503
Institute of Forensic Engineering	0.000	0.000	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
in that: Germany										
Poland										
Austria										
Slovakia			1							
other EU countries										
other non-EU countries										
women out of total (regardless of nationality)										

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	
Centre of Sports Activities	0.000	0.000	0.000	1.000	0.000	0.000	0.000	0.000	0.000	1.117
in that: Germany										
Poland										
Austria										
Slovakia				1						1.117
other EU countries										
other non-EU countries										
women out of total (regardless of nationality)										
CEITEC BUT	0.000	0.000	0.328	0.000	0.000	11.977	16.175	27.713	0.000	2.138
in that: Germany								0.214		
Poland						2.000				
Austria						1.500				
Slovakia			0.328			3.367	2.223	11.483		1.497
other EU countries						0.262	2.733	2.863		
other non-EU countries						4.848	11.219	13.153		0.641
women out of total (regardless of nationality)			0.328			1.162	5.343	8.342		1.648
Other workplaces total	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.334	0.000	14.989
in that: Germany										
Poland										
Austria										
Slovakia								0.334		12.286
other EU countries										
other non-EU countries										2.703
women out of total (regardless of nationality)										5.098
TOTAL	**2.489**	**8.371**	**26.318**	**17.455**	**0.000**	**14.218**	**30.379**	**77.383**	**0.000**	**35.535**
in that: Germany	0.000	0.000	0.000	0.268	0.000	0.000	0.000	1.381	0.000	0.762
Poland	0.000	0.000	0.151	1.297	0.000	2.000	0.000	0.743	0.000	1.000
Austria	0.000	0.150	0.000	0.000	0.000	1.500	0.000	0.177	0.000	0.000
Slovakia	2.291	6.290	18.210	9.689	0.000	3.863	10.095	36.379	0.000	26.085
other EU countries	0.000	0.000	2.457	1.919	0.000	0.596	3.857	7.345	0.000	0.000
other non-EU countries	0.198	1.931	5.500	4.282	0.000	6.259	16.427	31.358	0.000	7.688
women out of total (regardless of nationality)	0.880	1.876	8.832	6.416	0.000	2.414	9.798	21.418	0.000	14.594

Table 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 2023	5	5		46.74
of which women	0	0		
Associate Professors appointed in 2023	4	4		40.14
of which women	1	1		37.98
Faculty of Mechanical Engineering				
Professors appointed in 2023	3	3	3	46.44
of which women	0	0	0	
Associate Professors appointed in 2023	5	5	1	36.90
of which women	1	1	0	36.05
Faculty of Electrical Engineering and Communication				
Professors appointed in 2023				
of which women				
Associate Professors appointed in 2023	5	5		42.60
of which women	0	0		
Faculty of Architecture				
Professors appointed in 2023	2	1		58.44
of which women	1	0		64.09
Associate Professors appointed in 2023	1	0		56.94
of which women	0	0		
Faculty of Chemistry				
Professors appointed in 2023	1	1		51.13
of which women	0	0		
Associate Professors appointed in 2023	3	1		40.59
of which women	0	0		
Faculty of Business and Management				
Professors appointed in 2023				
of which women				
Associate Professors appointed in 2023				
of which women				
Faculty of Fine Arts				
Professors appointed in 2023			1	
of which women			1	
Associate Professors appointed in 2023	1	0		43.23
of which women	0	0		
Faculty of Information Technology				
Professors appointed in 2023				
of which women				
Associate Professors appointed in 2023	5	4		44.97
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 2023				
of which women				
Associate Professors appointed in 2023				
of which women				
TOTAL professors	**11**	**10**	**4**	**49.19**
of which women	1	0	1	64.09
TOTAL assistant professors	**24**	**19**	**1**	**41.87**
of which women	2	2	0	37.02

Table 7.1: University involvement in international cooperation programmes (regardless of funding source)

Brno University of Technology	H2022/7th EC Framework Programmes		Others	Total
	total	of which Marie-Curie Actions		
Number of projects	48	9	94	151
Number of students sent	6	0	412	418
Number of admitted students	2	0	586	588
Number of academic and scientific staff on secondment	43	0	576	619
Number of academic and scientific staff recruited	16	13	243	272
Subsidies in thous. CZK	673	45	3,762	3,808

Table 7.2: Mobility of students, academic and other staff by country (regardless of funding source)

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 country
Country	total	of which graduate internships	of which on-line	of which on-line	total					
Republic of Argentina	1	0	0	0	0	0	3	0	0	4
Commonwealth of Australia	1	0	0	0	0	0	2	0	0	3
Kingdom of Belgium	11	2	0	0	4	8	0	0	0	23
Bosnia and Herzegovina	1	0	0	0	11	1	10	0	0	23
Federative Republic of Brazil	0	0	0	0	6	0	0	0	0	6
Republic of Bulgaria	3	0	0	0	6	4	3	0	0	16
Republic of Chad	0	0	0	0	1	0	0	0	0	1
Montenegro	0	0	0	0	4	1	7	0	0	12
Czech Republic	0	0	0	0	3	0	0	0	0	3
People's Republic of China	0	0	0	0	1	0	0	0	0	1
Republic of China (Taiwan)	5	0	0	0	12	0	0	0	0	17
Kingdom of Denmark	15	0	0	0	2	0	1	0	0	18
Republic of Ecuador	1	0	0	0	0	0	0	0	0	1
Republic of Estonia	12	0	0	0	5	0	1	0	0	18
Republic of Finland	41	1	0	0	5	5	2	5	0	58
French Republic	29	1	0	0	179	8	0	4	0	220
Georgia	1	0	0	0	0	0	0	0	0	1
Republic of Croatia	2	0	0	0	2	7	0	0	0	11
Republic of India	0	0	0	0	2	0	4	0	0	6
Ireland	6	1	0	0	2	9	0	8	0	25
Republic of Iceland	7	0	0	0	0	4	0	4	0	15
Italian Republic	23	0	0	0	25	29	4	5	0	86
Japan	4	0	0	0	3	0	1	0	0	8
South Africa	0	0	0	0	0	0	1	0	0	1
Hashemite Kingdom of Jordan	0	0	0	0	0	0	1	0	0	1
Canada	4	0	0	0	0	0	0	0	0	4
Republic of Colombia	1	0	0	0	0	0	0	0	0	1
Democratic Republic of Congo	0	0	0	0	0	0	1	0	0	1
Republic of Korea	8	0	0	0	10	1	0	0	0	19
Republic of Cyprus	1	0	0	0	2	1	0	2	0	6
Principality of Liechtenstein	2	0	0	0	0	0	0	0	0	2
Republic of Lithuania	13	0	0	0	18	3	2	0	0	36
Republic of Latvia	2	0	0	0	4	2	2	0	0	10
Hungary	4	0	0	0	4	5	0	0	0	13
Malaysia	3	0	0	0	0	0	2	0	0	5
Republic of Malta	2	0	0	0	4	7	0	13	0	26
Netherlands	19	1	0	0	6	8	0	1	0	34
Kingdom of Norway	38	1	0	0	3	8	1	1	0	51
Islamic Republic of Pakistan	0	0	0	0	0	0	3	0	0	3

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 country
Country	total	of which graduate internships	of which on-line	of which on-line	total					
Republic of Poland	13	0	0	0	25	29	7	6	0	80
Republic of Portugal	31	3	0	0	40	5	1	0	0	77
Republic of Austria	66	4	0	0	9	20	6	1	0	102
Republic of Kazakhstan	0	0	0	0	2	0	0	0	0	2
Republic of Northern Macedonia	2	0	0	0	2	0	0	0	0	4
Romania	7	0	0	0	13	0	1	1	0	22
The Hellenic Republic	7	1	0	0	27	13	0	2	0	49
Republic of Singapore	0	0	0	0	0	0	1	0	0	1
Slovak Republic	13	2	0	0	23	17	5	1	0	59
Republic of Slovenia	19	0	0	0	7	9	2	0	0	37
United Kingdom of Great Britain and Northern Ireland	5	0	0	0	4	0	0	0	0	9
United States of America	11	1	0	0	8	0	2	0	0	21
United Mexican States	4	0	0	0	4	0	0	0	0	8
Federal Republic of Germany	56	2	0	0	27	10	0	1	0	94
Republic of Serbia	1	1	0	0	3	1	0	0	0	5
State of Israel	4	0	0	0	0	0	2	0	0	6
Country United Arab Emirates	1	0	0	0	0	0	0	0	0	1
Kingdom of Spain	49	2	0	0	105	17	3	8	0	182
Kingdom of Sweden	15	1	0	0	1	0	1	0	0	17
Swiss Confederation	11	0	0	0	2	0	1	0	0	14
Kingdom of Thailand	0	0	0	0	0	1	0	0	0	1
Republic of Tunisia	1	0	0	0	2	0	0	0	0	3
Republic of Turkey	3	0	0	0	49	3	1	2	0	58
Ukraine	0	0	0	0	1	0	3	0	0	4
Socialist Republic of Vietnam	0	0	0	0	0	0	2	0	0	2
Hong Kong Special Administrative Region of the People's Republic of China	0	0	0	0	0	0	1	0	0	1
Other	0	0	0	0	0	0	5	0	0	5
Total	**579**	**24**	**0**	**0**	**678**	**236**	**95**	**65**	**0**	**1,653**

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

Brno University of Technology	Bachelor's studies		Master's studies		Follow-up Master's studies		Ph.D. studies		Total	
	share	number	share	number	share	number	share	number	share	number
Faculty of Civil Engineering										
Percentage [%] and number of graduates who went abroad for at least 14 days during their studies	4.2%	15	0.0%	0.0	3.3%	12	25.0%	5	4.3%	32
Percentage [%] and number of doctoral graduates whose duration of the stay abroad was at least 1 month (i.e. 30 days)							25.0%	5	25.0%	5
Faculty of Mechanical Engineering										
Percentage [%] and number of graduates who went abroad for at least 14 days during their studies	2.2%	11	0.0%	0.0	14.4%	72	21.6%	8	8.8%	91
Percentage [%] and number of doctoral graduates whose duration of the stay abroad was at least 1 month (i.e. 30 days)							21.6%	8	21.6%	8
Faculty of Electrical Engineering and Communication										
Percentage [%] and number of graduates who went abroad for at least 14 days during their studies	0.8%	3	0.0%	0.0	7.6%	21	17.6%	3	4.0%	27
Percentage [%] and number of doctoral graduates whose duration of the stay abroad was at least 1 month (i.e. 30 days)							17.6%	3	17.6%	3
Faculty of Architecture										
Percentage [%] and number of graduates who went abroad for at least 14 days during their studies	19.40%	13	0.0%	0.0	36.5%	23	0.0%	0	27.3%	36
Percentage [%] and number of doctoral graduates whose duration of the stay abroad was at least 1 month (i.e. 30 days)							0.0%	0	0.0%	0
Faculty of Chemistry										
Percentage [%] and number of graduates who went abroad for at least 14 days during their studies	0.7%	1	0.0%	0.0	8.7%	12	50.0%	7	7.0%	20
Percentage [%] and number of doctoral graduates whose duration of the stay abroad was at least 1 month (i.e. 30 days)							50.0%	7	50.0%	7
Faculty of Business and Management										
Percentage [%] and number of graduates who went abroad for at least 14 days during their studies	3.0%	12	0.0%	0.0	9.5%	27	60.0%	3	6.1%	42
Percentage [%] and number of doctoral graduates whose duration of the stay abroad was at least 1 month (i.e. 30 days)							60.0%	3	60.0%	3

Brno University of Technology	Bachelor's studies		Master's studies		Follow-up Master's studies		Ph.D. studies		Total	
	share	number	share	number	share	number	share	number	share	number
Faculty of Fine Arts										
Percentage [%] and number of graduates who went abroad for at least 14 days during their studies	23.8%	10	0.0%	0.0	28.6%	10	100.0%	6	31.3%	26
Percentage [%] and number of doctoral graduates whose duration of the stay abroad was at least 1 month (i.e. 30 days)							100.0%	6	100.0%	6
Faculty of Information Technology										
Percentage [%] and number of graduates who went abroad for at least 14 days during their studies	4.6%	15	0.0%	0.0	13.2%	19	41.7%	5	8.0%	39
Percentage [%] and number of doctoral graduates whose duration of the stay abroad was at least 1 month (i.e. 30 days)							25.0%	3	25.0%	3
Institute of Forensic Engineering										
Percentage [%] and number of graduates who went abroad for at least 14 days during their studies	0.0%	0	0.0%	0.0	2.4%	1	50.0%	1	4.7%	2
Percentage [%] and number of doctoral graduates whose duration of the stay abroad was at least 1 month (i.e. 30 days)							0.0%	0	0.0%	0
Centre of Sports Activities										
Percentage [%] and number of graduates who went 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
Percentage [%] and number of doctoral graduates whose duration of the stay abroad was at least 1 month (i.e. 30 days)							0.0%	0	0.0%	0
CEITEC BUT										
Percentage [%] and number of graduates who went abroad for at least 14 days during their studies	0.0%	0	0.0%	0.0	0.0%	0	57.1%	8	57.1%	8
Percentage [%] and number of doctoral graduates whose duration of the stay abroad was at least 1 month (i.e. 30 days)							57.1%	8	57.1%	8
Vysoké učení technické v Brně										
Percentage [%] and number of graduates who went abroad for at least 14 days during their studies	3.6%	80	0.0%	0.0	10.7%	197	35.7%	46	7.7%	323
Percentage [%] and number of doctoral graduates whose duration of the stay abroad was at least 1 month (i.e. 30 days)							33.3%	43	33.3%	43
Brno University of Technology	**3.6%**	**80**	**0.0%**	**0.0**	**10.7%**	**197**	**33.3%**	**46**	**7.7%**	**323**

Table 8.1: Conferences (co-)organised 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	9	0	6	0
Faculty of Mechanical Engineering	1	2	2	2
Faculty of Electrical Engineering and Communication BUT	2	0	6	1
Faculty of Architecture	2	0	0	1
Faculty of Chemistry	4	0	4	0
Faculty of Business and Management	1	0	0	0
Faculty of Fine Arts	2	0	2	0
Faculty of Information Technology	3	0	1	0
Institute of Forensic Engineering	3	0	3	0
Centre of Sports Activities	0	0	0	0
CEITEC BUT	0	1	0	1
TOTAL	**27**	**3**	**24**	**5**

Table 8.2: Experts from the application sphere involved 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	38	9	6	33	0	64
of which women	6	1	0	7	0	3
Faculty of Mechanical Engineering	0	0	0	24	139	41
of which women	0	0	0	5	10	4
Faculty of Electrical Engineering and Communication BUT	15	3	5	29	32	36
of which women	0	0	0	0	0	0
Faculty of Architecture	29	22	6	16	0	114
of which women	8	5	1	8	0	11
Faculty of Chemistry	7	0	0	0	1	16
of which women	2	0	0	0	0	4
Faculty of Business and Management	15	4	3	8	0	168
of which women	5	2	0	1	0	92
Faculty of Fine Arts	35	24	0	12	4	0
of which women	13	5	0	5	2	0
Faculty of Information Technology	0	0	0	22	69	0
of which women	0	0	0	2	6	0

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
Institute of Forensic Engineering	13	0	0	0	0	0
of which women	2	0	0	0	0	0
Centre of Sports Activities	14	1	0	0	0	25
of which women	5	0	0	0	0	5
CEITEC BUT	0	0	0	0	0	0
of which women	0	0	0	0	0	0
TOTAL	**166**	**63**	**20**	**144**	**245**	**464**
of which women	41	13	1	28	18	119

Table 8.3: Fields of study/programmes that have compulsory completion of professional practice for at least 1 month in their content (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	Profes-sional profile	Academic profile	Profes-sional profile	Academic profile	Profes-sional profile
Faculty of Civil Engineering	4	230	247			44	107
Faculty of Mechanical Engineering	1		57			0	0
Faculty of Electrical Engineering and Communication BUT	0	0	0			0	0
Faculty of Architecture	3	0	364			0	68
Faculty of Chemistry	1		54				
Faculty of Business and Management	5	940	564			0	0
Faculty of Fine Arts	0	0	0			0	0
Faculty of Information Technology	0	0	0			0	0
Institute of Forensic Engineering	0	0	0			0	0
Centre of Sports Activities	1	0	54			0	0
CEITEC BUT	0	0	0			0	0
TOTAL	**15**	**1 170**	**1 340**			**44**	**175**

Table 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-off/start-ups			**4**	
Patent applications filed	10	2	**12**	
Granted patents	8	8	**16**	
Registered utility models	35	1	**36**	
Licence agreements valid as of 31. 12.	32	39	**71**	
Newly concluded licence agreements	2	10	**12**	**CZK 745,000**
Contract research, consulting and advisory services			**960**	**CZK 182,560,146**
Paid training courses for employees of application entities			**79**	**CZK 4,116,000**

Summary information on Table 8.4

	Total number	Total revenue	Average revenue per 1 order
New licensing agreements, contract research, consulting, advisory services and paid training courses for employees of application entities	1 051	CZK 187 421 146	CZK 178 326

Table 12.1: Accommodation, catering

Brno University of Technology	Number
Total bed capacity of university halls of residence	6,311
Number of beds in rented facilities	0
Number of applications/reservations for accommodation submitted as of 31. 12. 2023	6,861
Number of positively processed applications/reservations for accommodation as of 31. 12. 2023	5,617
Number of bed days in 2023	1,597,342
Total number of terminated contracts (pandemic)	0
Total number of adjusted contracts (pandemic)	0
Total number of contracts excluding (pandemic)	0
Number of main meals issued to students in 2023	632,237
Number of main meals issued to college staff in 2023	94,371
Number of main meals served to other diners in 2023	43,379

Table 12.2: University libraries

Brno University of Technology	Number
Increase in the library collection for the year	6,732
of which increment of physical units	6,350
of which the increase of e-books in permanent purchase	382
Total library collection	220,930
of which physical units	218,191
of which e-books in permanent purchase	2,739
Number of periodical titles subscribed:	
physically	282
electronically (estimate)	60
in both forms	10

15 List of abbreviations used

CEITEC	Central European Institute of Technology
CVIS	Centre for Computing and Information Services of BUT
CTU	Czech Technical University in Prague
ČZU	Czech Agricultural University
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 Technologies 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 ČR	Grant Agency of the Czech Republic
HR Award	Human Resources Award
IAESTE	International Association for the Exchange of Students for Technical Experience
ICV	Institute of Lifelong Learning BUT
JCMM	South Moravian Centre for International Mobility
JIC	South Moravian Innovation Centre
KC	BUT Career Centre
MENDELU	Mendel University in Brno
MEP	International Evaluation Panel
MŠMT	Ministry of Education, Youth and Sports
MIT	Ministry of Industry and Trade
MUNI	Masaryk University
Ministry of the Interior	Ministry of the Interior of the Czech Republic
NAÚ	National Accreditation Office for Higher Education
OP VVV	Operational Programme Research, Development and Education
RVH	Council for Internal Evaluation of the BUT
RVŠ	Council of Universities
RVVI	Research, Development and Innovation Council
SHAP	System of Evaluation of Academic Staff
SKAS	Student Chamber of the Academic Senate
SOČ	Secondary school vocational activities
TA ČR	Technology Agency of the Czech Republic
TUL	Technical University of Liberec
IFE	Institute of Forensic Engineering BUT
R&D	Science and Research
VŠB-TUO	Technical University of Ostrava
VŠE	University of Economics in Prague
WoS	Web of Science
ZČU	University of West Bohemia in Pilsen
ZeMA	Zentrum für Mechatronik und Automatisierungstechnik (German Research Centre for Automation and Mechatronics)

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