BRNO UNIVERSITY OF TECHNOLOGY

ANNUAL REPORT

ON THE ACTIVITIES OF THE BRNO UNIVERSITY OF TECHNOLOGY IN

2016

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Annual Report on the Activities of Brno University of Technology in 2016

The Annual Report on the Activities of Brno University of Technology for the year 2016 is presented in accordance with law no. 111/1998 Coll., on universities. It has been elaborated according to the framework curriculum of the university activities for the year 2016 issued by the Ministry of Education, Youth and Sports of the Czech Republic. Newly, the document is divided into a text and table part with a fixed structure based on the framework curriculum. On the other hand, the introductory part remains entirely in the management of the University and presents the information beyond the required curriculum. This all has been elaborated in accordance with the instructions of the Ministry of Education, Youth and Sports of the Czech Republic.

The Annual Report offers the data and substantial results of all activities related to the mission of Brno University of Technology in the scope of both Czech and international post-secondary education and offers the general public an overview of the university's major scientific and research activities.

The Annual Report was approved by the Academic Senate of BUT on 2nd May 2017.

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6 5 4
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CONTENT

1

INTRODUCTION

1.1 Introductory words of the rector

Dear Readers,

No later than in 2014, I communicated here my opinion that one could feel no necessity to pay attention to the events that repeat regularly. And The Annual Report on the Activities of Brno University of Technology belongs among the publications appearing periodically. Nevertheless, let me briefly consider the year 2016, to which this report is related, and hope that there will be somebody who will read these lines, once they have been written.

Undoubtedly, the most important event of the year 2016 was the adoption of the amendment to the Higher Education Act and its coming into legal validity. This amendment affected not only our past year's activities, but it will also affect our activities in the future. Furthermore, not only do we have to revise our internal rules and regulations, but we must get prepared for a new system of accreditation of degree programs, we must discuss institutional accreditation in some areas of our University education and, last but not least, all our activities must also address the increasing importance of quality and its monitoring. So far this all has made us intensely busy and we can expect the trend to continue in the future.

If I had to mention other events I consider important for our University, I would refer to CEITEC BUT and gradually bringing this project into full operation. At this point, it is necessary to thank the faculties, constituent parts, the entire academic community and other employees for their understanding and support of this strategic project. I can say that the life of BUT has been returning to normal. The Faculty of Mechanical Engineering can make full use of Building A1, where the static reconstruction of the 112 Purkyňova Street complex has been completed; the Faculty of Fine Arts has moved into the clean and cultivated premises at 53 Údolní Street, and the entire Faculty has been consolidated into one area.

However, I personally consider the most important point to be the fact that the faculties have agreed on a two-stage innovation of wage regulation. The first stage is supposed to be implemented in the first half of 2017 and will include an across-the-board increase of rates by 10%. In the second stage, we will discuss the significant upgrading of the whole regulation by increasing the incentive wage components, introducing economic incentives for young workers so that they speed up their progress in the ranks of educational-scientific degrees.

A separate chapter on which we concentrated in 2016 was communication with the central authorities in the three following areas: improving conditions (especially economic) for postgraduate students, the sustainability of R&D centers, and the issues of institutional support and tenders for project moneys (restrictions of competed money, an increase of institutional support; a relevant body for differentiating between economic and non-economic activities).

It should be noted that satisfactory results have not always been achieved, which is all the more reason to try again in 2017. That is what I promise.

Prof. Dr MSc Petr Štěpánek, PhD
Rector of BUT

1.2 Significant events at BUT in 2016

Actions and Events

The Central European Institute of Technology (CEITEC BUT) launched the full operation of its new laboratories on 16 September 2016. The cutting-edge scientific research center, located near the campus in the Pod Palackého vrchem compound, is called the European Center of Excellence. Within the CEITEC project, Brno University of Technology provides the auspices for research programs focused on advanced materials, advanced nanotechnology and microtechnology. The new complex of four buildings situated near Technology Park contains, for example, the "clean" laboratory spaces that are many times cleaner than an operating room. These clean spaces represent the largest clean rooms of all research institutions in the CR.

Claude Cohen-Tannoudji, the winner of the **Nobel Prize for Physics** in 1997, visited BUT in 2016. He had a lecture at the FEEC to inspire students and teachers in their further studies and scientific research activities. His visit was organized by Honeywell under the Honeywell Initiative for Science & Engineering (HISE). Cohen-Tannoudji is a professor of atomic and molecular physics at Collège de France in Paris. He was awarded the Nobel Prize for the development of methods for catching and cooling atoms using laser light.

In June 2016, the **A1 tower** of the Faculty of Mechanical Engineering was reopened to the public after its demanding reconstruction. After five years of repairs, the tower, that had been the tallest building in Brno for more than a quarter of a century, is again serving BUT students and employees. This 20-storey building was completely renovated for almost 621 million CZK.

The Cristmas Ball, organized by BUT students, alumni and student associations, was visited by more than three thousand guests, which is twice as many as the previous year. That was why the event had to be moved to the largest indoor exhibition hall in Central Europe. Held on Friday, December 2 in Hall P at the Brno Exhibition Center, the BUT Ball became the largest Ball in Moravia, based on the number of visitors.

The team of the famous mathematician Professor Miloslav Druckmüller, of the Faculty of Mechanical Engineering, went on an expedition to equatorial Indonesia in 2016 to take the unique images of **the solar corona**. The members of the expedition managed to capture the remarkable phenomenon of flying shadows. The international team, consisting of the representatives of the Institute of Mathematics of the FME BUT, brought the best close-ups of this so far unexplored phenomenon.

In 2016, the BUT Counseling Center (formerly known as Over the Blocks), was renamed **Alfons**, rebranded and launched a new modern web. In November, the Center, functioning within the Institute of Lifelong Learning, held a very successful Open Day at the new premises at 4 Kolejní Street. The Alfons Counseling Center provides assistance to all BUT students with specific needs.

In the fall of 2016, the Faculty of Fine Arts moved into the complex at the intersection of Úvoz and Údolní streets. FFA had been housed for two decades in two buildings, whose state was becoming inadequate. Since the 2016 winter semester, the Faculty obtained decent facilities at **53 Údolní Street**.

A bronze **bust of the famous electrician** Joseph Sumec was returned in June to its position in front of the BUT Rectorate building at 1 Antonínská Street, which used to house the Faculty of Electrical Engineering. The sculpture was cast by Jakub Kliment, an FFA graduate, and depicts this important personality of Czech and international electrical engineering.

On February 19, 2016, the Faculty of Information Technology **inaugurated Professor Pavel Zemčík**, who was elected Dean of the Faculty at the end of the previous year. The academic assembly was visited by BUT management, guests from other Czech universities, companies and City of Brno officials. The new Dean of FIT was elected for the term 2016–2020.

Human resources as the key to the **future of nuclear energy** in the Czech Republic – this was the topic of a discussion meeting that took place on June 30, 2016 at the BUT Rector's Office. The meeting was attended by Dana Drábová, President of the State Office for Nuclear Safety, and Daniel Beneš, CEO of CEZ. On November 15, 2016, BUT hosted a discussion meeting entitled the Call for Technical Education in a Changing Energy Sector. Besides representatives of BUT, the meeting was also attended by representatives of the Czech Technical University and the Technical University of Ostrava, as well as Kateřina Valachová – the Minister of Education.

In October 19, 2016, BUT was visited by Professor Gerlind Weber – **the grand-daughter of Professor Viktor Kaplan**, who worked at the German Technical University at Brno in 1903–1931. This was where he invented a new type of a water turbine, which he patented. Professor Weber also visited the Department of Fluid Engineering of the FME BUT, which also bears Viktor Kaplan's name.

The Institute of Forensic Engineering organized its second **Crash Day** – a day of publicly accessible car crash tests. The event was held on Saturday, September 24, 2016 on the premises of the iron scrap plant in Staré Město near Uherské Hradiště. Five of the crash tests were accessible to the general public from a safe distance. In this context, the development of technical and measurement devices for experimental research in the form of crash tests was also completed.

In 2016, BUT hosted the Announcement of the Best Academic Athlete. In that same year, the Center of Sports Activities launched **the electronic registration of sports**, offering students a total of 10,236 practice possibilities within 90 different sports. The offer also includes five sports taught in English for foreign students and one physical activity for students with specific needs.

BUT has successfully completed the reconstruction of the A02 housing facility in the area of the student dormitories located at Pod Palackého vrchem. So far it has been **the most extensive reconstruction of the dormitories**, during which the entire complex was repaired all at once, rather than in stages, as in the past. From June to September 2016, more than 330 rooms were renovated. The repair investments necessitated a total of 65 million CZK.

The Institute of Forensic Engineering (IFE) joined the **Night of Scientists** for the first time and offered an attractive program to popularize the work of this renowned specialized facility. IFE also opened a new course of technical expertise for the staff of the University institutes, which offers Ph.D. students possibilities for professional development.

In March the Faculty of Civil Engineering (FCE) contracted a **cooperation agreement with the South Moravian Region**. The memorandum promises cooperation in regional infrastructure development and in the area of the integrated rescue system. The cooperation between the Region and university also includes the assessmentof structural conditions of degraded buildings and landslides by experts from FCE.

The Faculty of Business and Management organized the international event **Branding Week**. Students could test the intensive international cooperation when solving specific marketing tasks. The project itself was focused on the development of commercial brands with an emphasis on hypermarkets and hobby markets.

The Faculty of Civil Engineering hosted the 18th annual **International Conference on Rehabilitation and Reconstruction of Building**. The two-day conference presented the latest findings and trends in historical building restoration.

On September 20, the Faculty of Information Technology (FIT) held **Homecoming** 2016, the first of the planned regular gatherings of faculty alumni. The official opening was followed by guided tours of the FIT historical cellars, museum of computing technology and research laboratories. Alumni had the opportunity to meet their former teachers and classmates. In addition, FIT also organized the 50 year reunion of graduates of the Faculty of Electrical Engineering, from which FIT branched out.

The Faculty of Architecture prepared a traveling exhibition of **sacred architecture** from the time of Charles IV. The opening took place in May at the Senate of the Czech Republic in the presence of Cardinal Dominik Duka and Senate Deputy Ivo Bárka. The exhibition, on the occasion of the 700th anniversary of the birth of the famous Czech monarch, moved to Brno in October. The studies, models and visualizations of sacral monuments were displayed in the hall of the Brno Bishopric.

Achievements and awards

In March **the City of Brno** awarded Professor Ivana Márová of the Faculty of Chemistry for the development of the microbial production of bio plastics derived from used cooking oil. **HYDAL** biotechnology is the only Czech technology to have received a Technology Oscar – the prestigious Frost & Sullivan Award – by a world renowned agency assessing the contribution of new knowledge for human development. Biotechnology Hydal was the only non-Chinese technology in the TOP 10 products at the most prestigious China High Tech Fair 2016 in Shenzhen. Hydal, from the Materials Research Center, was introduced by Nafigate – the company that launched the first production line for biodegradable agricultural films in China and is negotiating cooperation in India.

The team from the Faculty of Mechanical Engineering and CEITEC BUT was awarded in the prestigious competition **The Czech Head**. Scientists who created a unique microscope for observing living cells without the use of contrast agents won the Kapsch Prize for inventiveness on November 22, 2016. The same team, associated with Professor Chmelík, also won the famous Werner von Siemens Prize several years ago.

The third year of the annual contest **The School Recommended by Employers** was won by the Faculty of Mechanical Engineering (FME), BUT. Organized by the Czech Club of Employers, the competition gives prominent Czech employers the possibility to evaluate university faculties according to the quality of their graduates. FME improved its success over previous years, when it won second place.

In October the Technology Agency of the Czech Republic awarded research projects that are changing the world into a better place. In the category **Usefulness of Solutions**, the team **Speech @ FIT**, of the Faculty of Information Technology, succeeded with their project of processing technology for effective communication between human and computer. The aim of the project is to develop advanced technologies for speech recognition and use them in practical applications, such as in electronic dictionary searches on mobile devices, dictating translations, security and defense, dialog systems, customer care systems and audio-visual access to teaching materials.

The **BUT Student Racing Team** introduced the new model student formula **Dragon 6**, which became historically the lightest car created in their workshop. The team won 2nd prize at international competitions FS Czech, 6th place at FSAE Italy and 8th place at Hungary FS EAST. It was the most successful season in the team's history.

A team of scientists associated with Professor Miroslav Jícha of the Faculty of Mechanical Engineering succeeded in the European project SimInhale, which involves universities, research institutes and pharmaceutical companies from 24 countries. Their model of **lungs** is the most perfect one in the world in terms of flow research, which is why it was chosen by experts developing new inhalable drugs as a reference model. It means that this model will become a European standard for testing and experimentation.

The book Palimpsest by Petr Jambor, a student of the Studio of Drawing and Graphics, was awarded first place in the competition **The Most Beautiful Czech Books** of 2015 in the category Bibliophile and author's books. The book also won the most beautiful prize of the jury, namely, the Lukáš Pollert Bartered Prize. Jambor, of the Faculty of Fine Arts, received his award at the Hvězda summer chateau in Prague in April.

Martin Křivánek, a graduate of the Faculty of Architecture (FA), won 1st prize in the 17th year of the Presentation of Diploma Theses, which is regularly organized by **The Czech Chamber of Architects**. The jury was impressed by his thesis The Cultural-Social Center of Town Hall in Kohoutovice. The thesis, supervised by David Mikulášek of FA, addressed the jury not only with its quality graphic presentation, but also with its clear development plan of a selected Brno locality.

The LiteScope apparatus developed by a newly established company NenoVision, which is the first spin-off of the Central European Institute of Technology BUT, was awarded at the International Engineering Fair in 2016. This **auxiliary device for electron microscopes** enables the displaying of the surface of the sample in 3D and measuring for magnetic and electric properties using atomic force microscopy. The NenoVision Spin-off was founded by doctoral students of the Faculty of Mechanical Engineering and CEITEC BUT.

Scientists from FECT developed a system that keeps an eye on pipelines and borders. A system called **Invisible Fence** detects changes in the signal transmission spread in optical fiber. This invention was presented by the team of Vít Novotný at a seminar in the Parliament of the Czech Republic. The system has the potential to be used for the remote control of military buildings and borders.

A team of five students from the Faculty of Architecture won the Ideological Architectural Competition for the Use of the **Berlin University Residences**. Their task was to design temporary housing for tourists and students in the creative Berlin district of Kreuzberg. An idea by young architecture students from Brno defeated more than 280 architectural designs from around the world, winning 1st prize.

Katarína Hládeková, assistant at the Studio of Drawing and Graphics of the Faculty of Fine Arts (FFA), was one of six nominees for the prestigious **Jindřich Chalupecký Award**. An exhibition presenting the work of all the finalists was held in the Trade Fair Palace in Prague from October 2016. This award is given to young artists up to 35 years of age.

The Faculty of Information Technology (FIT) will cooperate with Facebook in the research of artificial intelligence. Brno IT professionals have become a part of the FAIR research program (**Facebook Artificial Intelligence Research**). Facebook will provide FIT with high-performance servers that enable faster computing.

Elisa Morcinková, a recent graduate of the Faculty of Civil Engineering (FCE), won 2nd prize in the national competition **Buildings with the Smell of Wood**. The jury was impressed especially by her design of the Hvězda Exhibition Gallery. The competition attracted 68 students from 11 Czech and Slovak universities. Their task was to design and construct a wooden house related to the theme "Promising Prospects".

In April 2016, BUT won the first ever **Soccer Match of Universities**. BUT defeated the favored Masaryk University 2:1. Taking place at the football stadium on Srbská Street, the match was visited by about three thousand spectators.

Daniel Skřek, a student of the Faculty of Civil Engineering, became the king of the **Brno May Celebration** of 2016. This is his third victory as the BUT student defeated the candidates of other Brno universities in this competition. In addition, he also won with the most online votes from the students of the Czech Technical University in Prague.

The **Cooperation of the Year** 2016 award was won by the CEITEC BUT project Advanced Analysis of Solid, Liquid and Gaseous Materials Using a Laser. The Sci-Trace apparatus, for the element analysis of materials using the technology of laser-induced microplasma spectroscopy (LIBS), was developed in collaboration among the BUT CEITEC team, Tescan Brno and the AtomTrace start-up. This unique world-wide solution was also awarded by the Association for Foreign Investments and the American Chamber of Commerce in the Czech Republic.

On November 16, 2016, Anna Krištofová-Koželouhová, a doctoral graduate from the Faculty of Architecture (FA), won the **Josef Hlávka Award** for her dissertation Sustainability of Housing and Residential Constructions, which was focused on the creation of a functioning system of social housing for the City of Brno. The award is presented by the Talent Foundation of Josef, Marie and Zdenka Hlávka. Tomáš Vičar, a student of the Faculty of Electrical Engineering and Communication, won the category of Best Diploma Thesis, impressing the jury with his work Tracking Cells in the Images of a Holographic Microscope. The thesis was done within his specialization Biomedical Engineering and Bioinformatics.

Team 42 of the Faculty of Mechanical Engineering won 2nd prize in the category Team Design of the pan-European engineering competition **EBEC Final 2016**. Our students Jan Fabig, David Hruboš, Jaroslav List and Miroslav Rebej succeeded in Belgrade, Serbia, representing BUT as the winners of the Central European round of EBEC Central. The final was attended by 120 participants from all over Europe. The total number of students from European technical universities who registered for the competition reached 6,500.

Marcela Laštůvková, from the Faculty of Chemistry (FC), won the **Travel Award** from the International Society for Humic Substances, which allowed her to present her research results at a conference in Japan. Laštůvková is a Ph.D. student working in the laboratory of biocolloids at the Center of Materials Research of FC.

In 2016, the British company Quacquarelli Symonds (QS) published the **QS Top Universities** ranking, where BUT attained the highest category of research evaluation (Very High Research). In the regional ranking, which includes the Central Asian states and European countries outside of Western Europe, BUT ranks in 19th place.

In October 2016, Professor Vladimir Šlapeta from the Faculty of Architecture was awarded the Prize of **Architext** at the East Centric Architecture Triennale in Bucharest for his long-term contribution to architectural dialogue in Central and Eastern Europe. The award was delivered by Arpad Zach, the director of Architecture Triennale, and Marian Moiceanu, Rector of Ion Mincu University of Architecture and Urbanism in Bucharest.

Students Tomáš Pelka (FIT) and Tomáš Pospíšil (FIT) won the Award for Innovation in the **Texas Instruments Innovation Challenge** (TIIC). They entered the competition with an extended version of the bachelor thesis Wireless System for Time Measurement in Sports. The thesis was also awarded at the Student Conference Excel@FIT, held at FIT in May.

ZPRÁVY
zVUT.cz

ZVUT.cz is a website for anyone interested in science and technology. It is full of stories about students, graduates and employees of BUT. The news from BUT so impressed the jury at the 2016 Golden Semicolon competition that the site won 2nd prize in the websites category. The Golden Semicolon is a competition in the field of corporate communications. An expert jury evaluates the graphic content and the overall processing of the corporate medium.

Lukáš Fujcik from the Institute of Microelectronics of FEEC supervises a team **designing and developing space applications**. Their project ELISA involves the design of the power and supply part of a laser that will be a part of a space satellite. This mission analyzes and measures gravitational waves. The team is developing complete satellite electronics within the METOP SG 3MI project. It is a visual experiment to track and monitor the surface of the Earth, weather, atmospheric temperatures and humidity.

Michaela Stránská, a runner from FIT, became **the best BUT athlete** in 2016. She won 2nd prize at the World Mountain Running and 1st prize at the European Championships in the same discipline. Orienteering runner Miloš Nikodým from FAST became the second best sportsman of the University, winning a silver medal at the Academic World Championships.

Anniversaries

The Faculty of Architecture (FA) is newly decorated with a **plaque commemorating its former student Pavel Švanda**. Under the previous regime, in the late 1970s and 1980s, Švanda joined the anti-communist movement. He refused to stop his activities despite the repeated threats and pressure exerted on him by the State Security. On October 10, 1981, his body was found at the bottom of the Macocha Abyss. The memorial plaque, designed by Jan Šebánek of FA, was unveiled on the premises of FA at 5 Poříčí Street on November 17.

In 2016, the **VUTIUM** publishing house commemorated twenty years of service. Being the BUT administrator of the ISBN number series, VUTIUM assigned about 4,800 ISBNs. Of these, 1,717 are titles issued directly by the publisher. In the second half of the year, the magazine Events at BUT changed from a monthly to a quarterly, offering more pages of interesting reading about BUT.

On November 30, the Assembly of the Faculty of Chemistry (FC) commemorated the 105th anniversary of the faculty foundation, which is associated with the **opening of the chemistry specialization** at BUT; it was then called the Imperial Technical University of Franz Joseph in Brno. The FC was closed by a decision of the communist government in 1951 and had to wait until 1992 for its revival.

On November 9, the jubilee 10th year of the **JobChallenge** was held at Brno Fait Gallery. The organization of this job fair traditionally involves BUT, who offered students a record number of 94 exhibitors.

Business Point, a marketing competition regularly organized by the Faculty of Business and Management, celebrated its 10th anniversary. This competition for high school teams focusing on economics is structured into two days. On the first day, the students are assigned a specific case study and given seven hours for its elaboration; on the second day, they defend their results in front of a jury.

1.3 Major projects of BUT

CEITEC is a joint project of six major Brno universities and research institutions. Within the CEITEC project, BUT sponsored research programs focused on advanced materials and advanced nanotechnology and microtechnology.

The year 2016 was a turning point for CEITEC in that it marked the launch of full operation of the center, located in the Pod Palackého vrchem campus. The full operation regime was officially launched on September 16 on the occasion of its grand opening. The complex of buildings near the Technology Park also houses the CEITEC Nano research infrastructure, which provides comprehensive instrumentation and technological equipment, and knowledge and methods for the implementation of research and development in nanotechnology and advanced materials. CEITEC Nano works in open access mode, e.g. the devices are accessible not only to BUT scientists and Ph.D. students, but also to the industrial partners and students from other Brno universities and research institutions.

CEITEC also won 1st prize in the 5th year of the Best Cooperation of the Year competition organized by the Association for Foreign Investments and the American Chamber of Commerce in the Czech Republic. The prize was awarded for a project on the extremely advanced laboratory device Sci-Trace, which can instantly analyze any solid, gaseous or liquid sample. The scientists from CEITEC BUT, the AtomTrace start-up and Tescan Brno are cooperating to develop a unique device that is unparalleled globally.

Professor Radim Chmelík, Head of the Experimental Biophotonics Group, and his team were awarded in the prestigious Czech Head Competition. They won the Kapsch Prize for invention with their design, implementation and verification of a unique optical system of the coherence-controlled holographic microscope, which works even with absolutely incoherent light, e.g. a halogen lightbulb to illuminate the object.

Another success is the Gold Medal at the International Engineering Fair 2016 that was awarded to NenoVision, which was established as the first spin-off firm of CEITEC BUT. The award-winning LiteScope, an additive element to electron microscopes, can display the surface of a sample in 3D and measure its magnetic or electrical properties using atomic force microscopy.

The achievements of CEITEC BUT are scientifically documented by top publications in international journals. This is evidenced by Dr. Vojtech Uhlíř's article Colossal Magnetic Phase Transition Asymmetry in Mesoscale FeRH Stripes, published in the prestigious international scientific journal Nature Communications. Lukáš Flajšman was awarded for his poster in the student section of the Joint European Magnetic Symposium in Glasgow, where he succeeded in this international competition of over 500 Ph.D. students.

In 2016, CEITEC BUT started a series of research tasks, including the ASTONISH project from the Cybernetics Group for Materials Science of Professor Pavel Václavek. The aim of the project is to develop advanced imaging and scanning technologies to improve the detection, diagnostics and treatment of diseases.

There were 16 students who enrolled in the inter-university doctoral study program of CEITEC BUT in 2016. The total number of students at the CEITEC Ph.D. School is now 62. CEITEC BUT expects its first graduates in the following year.

CEITEC NANO WORKS IN OPEN ACCESS MODE, E.G. THE DEVICES ARE ACCESSIBLE NOT ONLY TO BUT SCIENTISTS AND PH.D. STUDENTS, BUT ALSO TO THE INDUSTRIAL PARTNERS AND STUDENTS FROM OTHER BRNO UNIVERSITIES AND RESEARCH INSTITUTIONS.

IT4Innovations Centre of Excellence

IT4Innovations is a unique project aimed at building a national center of excellence in information technology. The center has already been successfully put into operation, with its first year of sustainability phase successfully completed in 2016. This new center, on the premises of the Faculty of Information Technology (FIT), is strengthening the concentration of a wide range of disciplines related to information technologies. Within the National Sustainability Program II, the planned staff was retained and the project itself met the monitoring indicators according to plan.

To implement IT4Innovations, FIT established its own Research Centre of Information Technology (RCIT). The Centre integrates both human and spatial capacity and equipment suitable for such activity. The building is ready for high-quality applied research and development. Its proximity to other areas of the faculty, thus academic staff and students, gives the Centre access to expertise and the possibility of synergy between the academic and commercial spheres. The Centre has established contractual cooperation with renowned companies such as Honeywell, NXP, Red Hat and CZ.NIC. The planned volume of contractual research for 2016 was exceeded. Cooperation on joint research projects with FIT is preferred and the project is expected to be partially funded on the basis of this cooperation.

Centre of New Technologies for Mechanical Engineering (NETME Centre)

The NETME Center is a science and research facility at the Faculty of Mechanical Engineering (FME). The center benefits from a long tradition of research, the results of which are intended to be put into practice. In 2016, NETME successfully launched or implemented a number of projects with industrial partners at both the national and international levels. This consolidated its position of leading engineering center in the Czech Republic. The opening of the Želiva Hydroelectric Power Plant in 2016 serves as an example of excellent knowledge transfer at the national level. The extensive involvement of NETME researchers in SimInhale, a European project that focuses on inhalation treatment of systemic diseases and vaccination, is an example of this transfer at the international level.

At the international level, NETME continues its high-quality publishing activities in the field of mechanical engineering with a high-level of citation indexing. In 2016, more than 250 articles and publications were published. The trend of the gradual increase of publications in prestigious impacted journals is highly positive.

The NETME Center is a successful winner of national and foreign grants. Some of the most significant projects in 2016 include HIJETROD, from the Research Fund for Steel and Coal, H2020-MCSA-RISE and FabLabNet. Meeting the objectives of sustainable development for international cooperation is evidenced by the winning of a prestigious grant aimed at forming a new international research group of the Center for Energy and Process Engineering (for the project Sustainable Process Integration Laboratory SPIL, OP VVV, 1 PO). The unique interdisciplinary consortium project Technology for SMART Cities was prepared in cooperation with NETME, three research organizations (BUT, Czech Technical University in Prague and the Transport Research Center) and the Statutory City of Brno. This confirms the long-term focus of the Center's research activities on addressing important social issues.

IN 2016, NETME CENTRE SUCCESSFULLY LAUNCHED OR IMPLEMENTED A NUMBER OF PROJECTS WITH INDUSTRIAL PARTNERS AT BOTH THE NATIONAL AND INTERNATIONAL LEVELS.

Advanced Materials, Structures and Technologies (AdMaS) Research Center

Part of the Faculty of Civil Engineering (FCE), AdMaS is a modern scientific center and comprehensive research institution in the field of construction. It focuses on the research, development and application of advanced building materials, structures and technologies. Its scope goes beyond the construction sector, which is evidenced by the research targeted at transport systems and the infrastructure of towns and villages.

The Center has completed its second year of full-scale operation at its new site on 139 Purkyňova Street. This year, the Center continued work on R & D projects from previous years and began new ones, including the international project Shift2Rail of the H2020 program. In total, there were 24 projects in 2016 (e.g. GA CR, TA CR, Ministry of Industry and Trade, Ministry of the Interior of the CR).

The Center has strengthened its commercial policy and intensified its cooperation with the application sphere and the area of joint R & D projects. The area of contractual research exceeded the limit of 36.7 million CZK. In 2016, the number of international mobilities increased, which contributed to the establishment of new partnerships and new areas of international cooperation (e.g. TU Wien, Bauhaus University Weimar, Korea Transport Institute, Universiti Sains Malaysia).

In 2016, all the planned values of the monitoring indicators were fulfilled, with most of them significantly exceeding the planned values. In publications, there were 40 scientific articles instead of the 2 originally planned; and 131 other publications ranked according to RVVI methodology instead of the planned 42. The project NPU I LO1408 AdMaS UP – Advanced Building Materials, Construction and Technologies – continued successfully.

IN 2016, THE NUMBER OF INTERNATIONAL MOBILITIES INCREASED, WHICH CONTRIBUTED TO THE ESTABLISHMENT OF NEW PARTNERSHIPS AND NEW AREAS OF INTERNATIONAL COOPERATION.

Materials Research Centre (MRC)

In 2016, the Materials Research Center, which operates at the Faculty of Chemistry, reached a total of contracted research for 5.9 million CZK and 79 new unique results. This can be illustrated by the alternative inorganic binder patent based on secondary raw materials. The patent was licensed by ESET from Říčany near Brno and is currently being tested in real operation. Other major achievements included several national and international biotechnology prizes, in particular the unique Hydal technology: the 2015 Prize of the City of Brno in Technical Science (Prof. Ivana Márová), Top 10 products at the China High Tech Fair 2016 and the Seal of Excellence Award for a project proposal in the H2020 program. A preliminary agreement between the Centre and the Indian company Vikas Ecotech from New Delhi was signed to expand Hydal technology to the Indian market. The Metal and Corrosion Laboratory contracted research with about thirty companies, such as ABB, Saint-Gobain and other multinational corporations. The Biocoloid Laboratory, in cooperation with the Faculty of Mechanical Engineering and Inha University of South Korea, won an international GA CR (Czech Grant Agency) project aimed at interdisciplinary research on magnetoreological fluids.

The Laboratory of Organic Electronics and Photonics won two new basic research projects (GA CR). One project focuses on new, nature-inspired organic semiconductors for bioelectronics and is being carried out in cooperation with the Biophysical Institute of the Academy of Sciences of the Czech Republic. The other project concentrates on new materials for 3D printing and 3D imaging (in cooperation with University of Pardubice).

The Materials Research Center has also continued cooperation with the application sphere. This cooperation concerns projects shared with the Brno Observatory and Planetarium and the Technical Museum in Brno. The achievements in Hydal Biotechnology resulted in establishing the new Bioplast Laboratory, which will focus on the application research of biotechnologically-produced and biodegradable plastics, in order to replace oil-based polymers (non-renewable sources).

Center of Sensor, Information and Communication Systems (SIX)

The SIX Center was established in 2010 as a joint initiative of the departments of the Faculty of Electrical Engineering and Communication Technologies engaged in the research and development of sensory systems, information and communication technologies. The aim of this initiative was to interconnect the shared research interests of the institutes and apply their synergy to large, complex research projects.

The individual departments provided the SIX Center with their research laboratories. In 2011–2013, the laboratory equipment was modernized and significantly extended thanks to financial support from the Operational Program Research and Development for Innovations. The year 2014 was the first year of the Center's full operation without direct financial support from public sources. Despite the absence of direct support, the SIX Center increased both the numbers of its staff and their calculated workload, as well as the number of professional outputs and the volume of grants and commercial contracts. The Centre continued its expansion in 2015 and 2016.

Since 2015, the SIX Center has been supported by the National Sustainability Program project Interdisciplinary Research of Wireless Technologies (INWITE). The aim of the project is to develop the quantity and quality of basic research and increase the ambition of the Center in applied and commercial research. The professional objectives of the project are being implemented by a team of five working groups, supervised jointly by the professors of the Technical University of Vienna and the SIX Center. The structure of INWITE's expert groups is helping to shape the Center into six narrower areas (sensors, signals, radio-frequency systems, mobile communication systems, antennas and high-frequency circuits, and advanced cybernetic security).

The SIX Center has been closely cooperating for several years with the Technical University of Vienna. In 2015, the professional teams of the Center included several Austrian researchers. In the following year, a joint study program for both Master's and Ph.D. students was established. The cooperation also yields excellent results in the area of research financing: four projects submitted by the teams involving both Czech and Austrian researchers succeeded in the grant competition of GA CR (Czech Grant Agency).

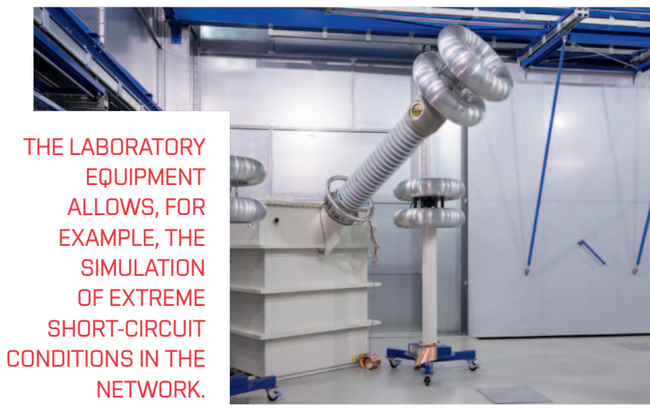
Center for the Research and Utilization of Renewable Energy Sources (CRURES)

The CRURES research center deals with the complex questions of renewable energy sources. Its research team members are involved in chemical and photovoltaic energy sources, electromechanics, electrical technology, electrical drives, electricity, mobile robots and industrial electronics in five main research areas: optimization of electromechanical energy conversion; chemical and photovoltaic energy sources; generation, transmission, distribution and use of electricity; automation and sensory technologies; and off-process in switchgear.

In addition to the basic research, the Center focuses on collaboration with industry and the acceleration of the transfer of new technologies into the industrial sphere. All CRURES laboratories form a unique infrastructure that addresses important industrial partners whose production activities are closely linked to research activities.

In 2016, the research activities of the Center were funded substantially by the project of the National Sustainability Program called Energy in Terms of Sustainable Development (EN-PUR). The Center also covers its operating costs from non-public sources. In 2016, the revenues from contractual research for industrial partners reached more than 13 million CZK.

An important part of the CRURES Center includes a large infrastructure with respect to Act No. 130/2002 Coll. named CRURES Power Laboratories (CRURES PowerLab). The important components of the Center include: the Switchgear Laboratory and the Laboratory of High Voltage, which are located in the List's Science and Technology Park. These strategically important laboratories are used for the research and development of heavy current and high-voltage electrical equipment. The laboratory equipment allows, for example, the simulation of extreme short-circuit conditions in the network and lightning discharge into conducting wires. In 2016, the large CRURES PowerLab infrastructure became a part of the Czech Republic's Big Infrastructures for Research, Experimental Development and Innovation for the years 2016 to 2022.



THE LABORATORY EQUIPMENT ALLOWS, FOR EXAMPLE, THE SIMULATION OF EXTREME SHORT-CIRCUIT CONDITIONS IN THE NETWORK.

1.4 Achieved objectives within the BUT Long-Term Plan for 2016

In 2016 BUT continued to fulfill the partial tasks of the BUT Long-term Plan. In the area of science and research, all seven BUT research centers actively participated in the preparation of Operational Programme Research, Development and Education projects.

The CEITEC BUT and IT4Innovations Centre have been successful in the H2020 projects. Two research infrastructures were approved at BUT, namely at the CEITEC BUT and CRURES Centers.

The SIX Center was successful in teaming within the H2020. On 1 July 2016, the pilot operation of the module was launched in the information system for the TA CR DELTA projects, and training sessions to attain improvement are periodically being organized. BUT is completing the monitoring of this area to follow the online status of the research results in the BUT information system module.

In the field of marketing and external relations, BUT has strengthened the online marketing, which optimally targets the potential applicants for studies. More focus was put on the LinkedIn social network, which makes addressing graduates easier. The Mentoring program for female high school students in the area of technical and natural sciences enabled the establishment of cooperation with the Institute of Sociology of the Czech Republic with the aim of increasing the number of female students in technical fields at BUT. The internal magazine BUT Events has been updated. Its new redesign now corresponds to the newly established unified visual style. Its periodicity has also changed: a popular magazine is newly published as a quarterly, and thanks to the stands purchased by individual faculties, it can better reach its readers – the students. In December 2016, BUT staff participated in a media workshop supervised by Czech Television moderator Daniel Stach. Chosen scientists and academics acquired basic media literacy to improve their communication with the mass media. The modernization of BUT websites started (including individual faculties and constituent parts) so that the websites correspond with the uniform visual style of the University. Cooperation with the application sphere strengthened significantly in 2016. A synoptic presentation of the cooperation can be found at www.vutbr.cz/spoluprace. Cooperation with the Regional Chamber of Commerce was continued and BUT also entered the Automobile Cluster.

BUT systematically cooperates with external partners from industry, Czech and foreign universities, public and cultural institutions, the economic sphere, the municipality and local administration, and non-profit and special interest organizations. In 2016, the institutional conditions of partnership with BUT (partnership packages) were defined. The main partners of BUT include Škoda Auto, OHL ŽS, Honeywell, Google and Student Agency. The goal for 2017 is to fill the post of BUT general partner in Brno.

In 2016, the university managed to stabilize its budget. As such, it was not necessary to use a loan to cover the costs of the completion of the CEITEC BUT scientific center.

Management of BUT is gradually optimized on the basis of economic centers with respect to not increasing their administrative load. Following the interpretation of the MEYS and the European Commission, BUT methodically guides the process of adapting a method of VAT deduction. A uniform system of pricing economic activities and cost / project budgeting on the principles of full cost financing (direct and indirect) was also introduced.

From 2016, the BUT English websites were continuously updated by the constant addition of information from the Czech version. The international mobility program (Erasmus +, CEEPUS, Aktion etc.) websites were also updated by completing the missing information. In 2016, there was intensified cooperation between BUT and IAESTE, a student association. This enabled students to complete more internships abroad (apart from those organized in the framework of standard mobility). The Department of Foreign Relations sought ways to additionally support the mobility of doctoral students. In cooperation with faculties and departments, it negotiated the priority geographic areas for establishing new contacts and co-operation.

1.5 Activities of the Academic Senate of BUT in 2016

In 2016, there were 11 regular and 1 exit session of the Academic Senate (AS) of BUT. The October AS session was held on the premises of the Central European Institute of Technology in Brno (CEITEC BUT) on the premises of the Pod Palackého vrchem building. This session was followed by a tour of the CEITEC BUT premises and science laboratories.

The AS dealt with standard issues such as legislative, economic, educational and creative activities. They discussed and approved amendments to the internal regulations of the university, faculties and institutes. The last but not least was the approval of the new version of the BUT Code of Ethics. Substantial discussions related to significant changes in the rules of budgeting and the subsequent approval of the BUT budget for 2016 in the new form of "living tables", which facilitate complementary analyses. In connection with the long-term strategy of BUT, the AS addressed a number of new analyses mainly concerning major projects and investments of the previous year. Prior to the negotiations in the AS, all subjects were analyzed in detail in working committees.

The Legislative Commission of the AS of BUT (hereafter LC) held three meetings at which it accepted recommendations for the AS, mainly the amendment of the internal regulations of the university, faculties and institutes. The recommendations for the submitted documents were mostly per rollam. LC continued its important cooperation with the Law Department of BUT. In connection with the implementation of the amendment to the Higher Education Act No. 111/1998 Coll. (hereafter the amendment to the Act) into the internal regulations of BUT, the commission intensively cooperated with BUT management during August and September 2016 to prepare a new version of the BUT Statute.

Economic Committee of the AS of BUT (hereinafter the EC) held 20 sessions, where it discussed the Budgetary and Management Budgeting Rules of BUT for 2016 and thereafter the BUT Budget for 2016. The EC cooperated with the bursar and rector to reach detailed transparency of financial flows, financing structure and budget of BUT in terms of resources.

Pedagogical Committee of the AS of BUT convened three sessions dealing mainly with the guidelines for admissions to CEITEC BUT and IFE, and accreditation of the CESA study program.

The Committee for Creative Activities of the AS of BUT (hereinafter CCA) convened 5 sessions. In cooperation with the vice-rector for creative development, it was concerned with specific research funding; among other points, it discussed in detail and adopted a recommendation on the proposal of the organizational change in the system of project support at BUT.

In 2016, the systematic support of AS activities in the area of finance and legislation was further intensified in order to contribute to the substantive discussion of related topics in the AS.

The ideas of the reforms of Czech universities in terms of autonomy and academic self-government have been carefully analyzed, emphasizing namely the analysis and indication of the changes in the current BUT legislation in connection with an approved amendment to the law. The preparedness of the BUT self-governing bodies is expected to minimize the risks posed by these changes.

The representatives of the BUT academic community in the Board of Higher Education electronically provided members of the AS and the senates of the selected constituent parts with regular up-to-date reports from the committees. The AS supported direct communication between the BUT management and the academic community on current economic issues, as well as the specification of the rules for publication following the implementation of the amendment to the Act. Emphasis was placed on unifying the form and content of individual analyses, particularly in the areas of economic and performance indicators in legislative areas.

In June 2016, there was a two-day seminar in Mikulov with the participation of AS members, members of BUT management, legal department staff and the guests from the Council of Universities. The topics of the seminar were:

- Preparation of new versions of internal BUT regulations following the amendment of the Act
- Inclusion of activities related to quality assessment in BUT life
- Issues of fundamental changes in the accreditation system in the Czech Republic
- Amending the budget rules in the Czech Republic and their projection into the BUT conditions
- Impact of changes in the evaluation of science, research and innovation on BUT life
- The issue of the impact of the external bureaucratic burden on BUT activities, especially in connection with OP RDE projects

Reflecting on the amendment to the Act, AS members discussed the further development of direct communication tools using electronic communication.

The exit session discussed the simplification of the specific research management system at BUT in terms of the development of science, research and innovation, as well as the collection of specific comments and experience from the academic community.

This issue continued to be discussed with the vice rector for creative development at the EC and CCA sessions.

The exit session of AS discussed in detail the support of the information system in the areas related to the implementation of the amendment to the law and the preparation of the BUT budget, including the evaluation of its utilization. A series of related legislative topics, including a timetable for the timely implementation of BUT internal regulations, was discussed in detail at a seminar held during the AS session. The seminar was attended by guests from BUT management and the Council of Universities.

In the second half of 2016, the early implementation of changes was begun to BUT internal regulations resulting from the amendment to the Act, i.e. the preparation of new texts of the internal regulations of the university. At the beginning of September, there was the joint working session of the members of the LC, the chairmen, vice-chairmen and chairpersons of the working commissions of the AS with the rector and members of BUT management. The session focused on the new version of the BUT Statute. This document was approved by the AS at the end of September and registered by the Ministry of Education, Youth and Sports in October. The intense work of the AS continued, especially during the meetings of the working commissions held in the autumn of the same year. LC cooperated with the BUT rector and the Legal Department in the preparation of new versions of the AS BUT Electoral Rules and the Rules of Procedure of AS BUT. During September and October, the EC and CCA, in cooperation with the university management, concentrated on detailed commenting of the Plan for the Implementation of the BUT Strategic Plan for 2017. The Plan was subsequently approved by the AS. At the end of the year, the EC, rector and bursar discussed the preparation of the BUT Rules for Budget and Management for 2017.

The Student Chamber of BUT (hereinafter SC) focused on the development of modern electronic communication tools and their use for the operational sharing of information with BUT students. In cooperation with IAESTE, the student chambers of individual faculties and other BUT student organizations, the SC created a traditional guide for first year BUT students. The SC continued the Intern Fund to support student projects and implemented a student survey of the best BUT teacher, focusing on refining and presenting the rules of its evaluating. At the exit session of the AS in Mikulov, a new head of the SC AS BUT was elected due to the resignation of the previous President of SC AS. In December, SC successfully organized the BUT Christmas Ball at the Brno Exhibition Center.

All the above-mentioned activities of AS are aimed to intensify the cooperation between BUT management and AS as a natural and traditional component of academic life and as a key element of active involvement of the academic community in university development including the facilitation of communication between individual levels of university management, the academic community and employees.

Documents discussed at the AS sessions in 2016

Legislation:

- Amendment No. 1 to the Rules of Organization of the BUT Rector's Office in Brno [JANUARY]
- Amendment No. 1 to the Rules of Organization of the BUT Food and Housing Division [JANUARY, FEBRUARY]
- Amendment No. 1 to the Statute of CEITEC BUT [MARCH, APRIL]
- Code of Ethics of BUT [APRIL, MAY]
- Presentation of the new version of the BUT Statute [JUNE, SEPTEMBER]
- Amendment No. 2 to the organizational order of the BUT Rector's Office [OCTOBER, NOVEMBER]
- Disciplinary Regulations for BUT students [DECEMBER]
- New version of the Electoral Rules of AS of BUT and the Rules of Procedure of the AS BUT for the preliminary discussion [DECEMBER]

Economic Affairs:

- Rules of budgeting and management of BUT 2016 [JANUARY, FEBRUARY]
- Budget of BUT for 2016 [MARCH, APRIL]
- Discussion of the budgets of centralized parts of BUT for 2016 [MAY]
- Discussion of the budget of CEITEC BUT for 2016 [MAY]

Creative activity:

- Rules of the Internal Fund of Student Projects of BUT for 2016 [JANUARY]
- Proposal for organizational change in the system of project support at BUT [MARCH, APRIL, MAY, JUNE]
- Final report of the Internal Fund of Student Projects 2015 [OCTOBER, NOVEMBER]
- Rules for the Internal Fund of Student Projects of BUT 2017 [OCTOBER, NOVEMBER]

Pedagogical issues:

- Directive of the Head of IFE for admissions to the IFE in 2016/17 [JANUARY, FEBRUARY]
- Change in BUT Scientific Council staffing [JANUARY, FEBRUARY]
- Fee for the procedures associated with the admission for the academic year 2017/18 [FEBRUARY, MARCH]
- Proposal for accreditation of the new interdisciplinary Bachelor's Degree Program CESA Sports and Biomedical Technologies [MARCH, APRIL]
- Two directives of the Head of IFE for admissions to the IFE for the academic year 2017/18 [OCTOBER, NOVEMBER]
- CEITEC BUT for admission to doctoral study programs at CEITEC for the academic year 2017/18 [DECEMBER]

Other important documents and negotiations of the AS of BUT

- Information on the activities of the Central Library of BUT [FEBRUARY]
- Long-term plan of CESA for 2016–2020 [MARCH, APRIL]
- Update of the Long-term plan of CESA for 2016 [MARCH, APRIL]
- Long-term plan of IFI for 2016–2020 [MARCH, APRIL]
- Update of Long-term plan of IFI for 2016 [MARCH, APRIL]
- Annual report on the activities of BUT in 2015 [APRIL, MAY]
- Annual economic report of BUT for 2015 [APRIL, MAY]
- Presentation of the representatives of the Board of Higher Education on implementation of the amendment to the law on universities [JUNE] (exit session of AS)
- Presentation of Chairman of the Working Commission of the Board of Higher Education for Scientific Activities [JUNE] (AS Exit Session)
- Presentation of the new visual style at BUT [SEPTEMBER]
- Implementation of the Strategic Plan for 2017 [SEPTEMBER, OCTOBER]
- Information on the situation at the Faculty of Architecture [SEPTEMBER]
- Information from the bursar on the changes in the supplementary retirement plan [SEPTEMBER]
- Information from the Director of CEITEC BUT; inspection of CEITEC laboratories [OCTOBER]
- Information from the head of OMVV on the progress on the BUT website modernization project [DECEMBER]
- Long-term plan of CEITEC BUT 2016–2020 and its update for 2016 [DECEMBER]

2

BASIC INFORMATION ABOUT THE UNIVERSITY

2.1 Full name of the university, commonly used abbreviations, location and its constituent parts

Brno University of Technology
BUT
Antonínská 548/1, 601 90 Brno
Czech Republic
www.vutbr.cz

Faculties (ordered by year of origin)

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

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

Faculty of Electrical Engineering and Communication of BUT
FEEC
3058/10 Technická Street, 616 00 Brno
www.feec.vutbr.cz

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

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

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

Faculty of Fine Arts of BUT
FFA
244/53 Údolní Street, 602 00 Brno
www.ffa.vutbr.cz

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

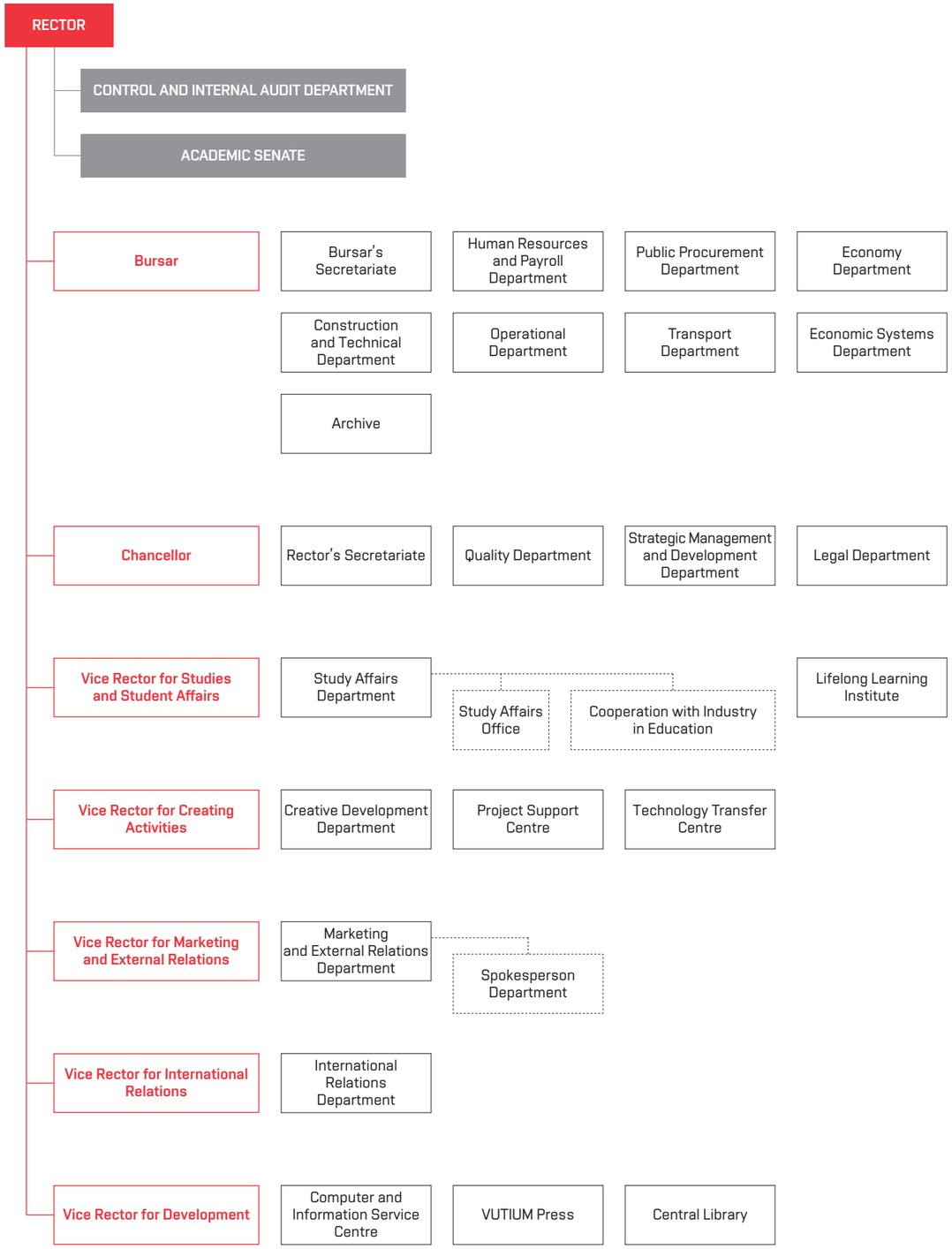
University Institutions

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

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

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

2.2 Organizational chart of BUT



2.3 Members of Scientific Board, Management Board and the Academic Senate of BUT

Scientific Board of BUT

Chairman:
Prof. Dr MSc Petr Štěpánek, PhD

Members:
Assoc. Prof. MSc Irena Armutidisová
Assoc. Prof. MSc Vojtěch Bartoš, PhD
Prof. MSc Ladislav Buřita, PhD
Prof. MSc Jarmila Dědková, PhD
MSc Jaroslav Doležal, PhD
Prof. Dr Miroslav Doupovec, PhD
Prof. MSc Rostislav Drochytka, PhD, MBA
MSc Miloš Filip
Prof. Michal Gabriel
Prof. MSc Lubomír Grmela, PhD
Prof. MSc Martin Hartl, PhD
Prof. Dr Radek Horáček, PhD
Assoc. Prof. MFA Milan Houser
Assoc. Prof. MSc Jan Hrubý, PhD – from 9. 6. 2015
Prof. MSc Tomáš Hruška, PhD
Prof. MSc Marcela Karmazínová, PhD
Assoc. Prof. MSc Jaroslav Katolický, PhD
MSc Jaroslav Klíma
Prof. MSc Petr Konvalinka, PhD
Prof. MSc Jan Kovanda, PhD
Prof. Dr MSc Zdeněk Kůs
MSc Vlasta Loutocká
Prof. MSc Miroslav Ludwig, PhD
Dr MSc Ilona Müllerová
Prof. Dr MSc Drahomír Novák
MSc Eduard Palíšek, PhD, MBA
Prof. MSc Miloslav Pekař, PhD
Prof. MSc Petr Pelčák
Prof. Dr MSc Zbyněk Raida
Prof. MSc Karel Rais, PhD, MBA
Prof. MSc Robert Redhammer, PhD
Prof. MSc Petr Sáha, PhD
Assoc. Prof. MSc et MSc Stanislav Škapa, PhD
Assoc. Prof. MSc Aleš Vémola, PhD
Prof. MSc Stanislav Veselý, PhD
Prof. Dr. Peter Vojtáš, PhD
Prof. MSc Ivo Vondrák, PhD
Prof. MSc Radimír Vrba, PhD
Prof. MSc Martin Weiter, PhD
Prof. Dr MSc Pavel Zemčík – from 15 January 2016
Assoc. Prof. MSc Jaroslav Zendulka, PhD – until 15 January 2016

Management Board of BUT

Chairperson:
MSc Michal Štefl

Members:
MSc Eva Bartoňová
Valentin Girstl
MSc Miroslav Hošek
Dr Miroslava Kopicová
MSc Petr Kostík
Dr Martin Maisner, PhD
Dr MSc Lukáš Evžen Martinec
MSc Stanislav Moša
MSc Jiří Nekovář
MSc Martin Pecina
MSc Petr Rafaj
Prof. Dr Eduard Schmidt, PhD
MSc Jan Světlík
Prof. Dr Jiří Vorlíček, PhD

Academic Senate (AS) of BUT

Chairperson:
Assoc. Prof. Dr MSc Petr Hanáček

Vice-chairpersons:
MSc Pavel Maxera – from 24 June 2016
MSc Tomáš Mejzlík – until 24 June 2016
Prof. Dr Milada Vávrová, PhD

Chamber of Academic Staff of AS of BUT

Chairperson of Chamber:
Prof. Dr Milada Vávrová, PhD

Members:
MSc Petr Beneš, PhD
Assoc. Prof. MSc Ivo Boháč, PhD – from 8 November 2016
MSc Albert Bradáč, PhD
Prof. MSc Jiří Burša, PhD
MFA Žaneta Drgová
Prof. MSc Eva Gescheidtová, PhD
Assoc. Prof. Dr MSc Petr Hanáček
MFA Tomáš Hrůza
MSc Bohumila Hybská – until 30 September 2016
Assoc. Prof. MSc Jiří Kunovský, PhD
MSc Helena Musilová
MSc Tomáš Opravil, PhD
Dr Pavel Popela, PhD
Dr Milan Slezáček
MSc Lenka Smolíková, PhD
Assoc. Prof. MSc Miloslav Steinbauer, PhD
Prof. Dr MSc Vladimír Šlapeta
Prof. MSc Jiří Vala, PhD

Chamber of Students of AS of BUT

Chairperson of Chamber:
MSc Pavel Maxera – from 24 June 2016
MSc Tomáš Mejzlík – until 24 June 2016

Members:
MSc Marta Bímová – until 7 November 2016
MSc Petr Dvořák
MSc et MSc Michaela Fiedlerová
BA Andreas Gajdošík – from 31 May 2016
MSc Radek Hranický – from 6 December 2016
BSc Václav Hummel – until 7 November 2016
BSc Daniel Janík – from 11 October 2016
MSc Jana Kořínková – until 3 May 2016
MSc Tomáš Krejčí
MSc Ladislav Pařízek – from 13 September 2016
MSc Libor Zvěřina – until 22 July 2016

Working commission of AS BUT

– Legislative Committee

Chairperson:
MSc Helena Musilová

Members:
MSc Albert Bradáč, PhD
Prof. MSc Eva Gescheidtová, PhD
Dr Pavel Popela, PhD
Prof. MSc Jiří Vala, PhD

Students:
MSc et MSc Michaela Fiedlerová
MSc Pavel Maxera
MSc Ladislav Pařízek – from 11 October 2016

– Economic Commission

Chairperson:
Dr Pavel Popela, PhD

Members:
MFA Tomáš Hrůza
MSc Bohumila Hybská – until 30 September 2016
Assoc. Prof. MSc Jiří Kunovský, PhD
MSc Tomáš Opravil, PhD
Dr Milan Slezáček
MSc Lenka Smolíková, PhD
Assoc. Prof. MSc Miloslav Steinbauer, PhD
Prof. MSc Jiří Vala, PhD
Prof. Dr Milada Vávrová, PhD

Students:
MSc Petr Dvořák
BSc Václav Hummel – until 7 November 2016
BSc Daniel Janík – from 11 October 2016
MSc Jana Kořínková – until 3 May 2016
MSc Tomáš Mejzlík – until 24 June 2016

– Pedagogical Commission

Chairperson:
Assoc. Prof. MSc Miloslav Steinbauer, PhD

Members:
MSc Petr Beneš, PhD
MSc Albert Bradáč, PhD

Students:
MSc Marta Bímová – until 7 November 2016
MSc Petr Dvořák
BSc Václav Hummel – until 7 November 2016
BSc Daniel Janík – from 11 October 2016
BSc Tomáš Krejčí
MSc Tomáš Mejzlík – until 24 July 2016

– Commission for Creative Activities

Chairperson:
Assoc. Prof. MSc Jiří Kunovský, PhD

Members:
Prof. MSc Jiří Burša, PhD
MFA Žaneta Drgová
Prof. MSc Eva Gescheidtová, PhD
MSc Bohumila Hybská – until 30 September 2016
MSc Tomáš Opravil, PhD
MSc Lenka Smolíková, PhD
Prof. MSc Jiří Vala, PhD
Prof. Dr Milada Vávrová, PhD

Students:
MSc et MSc Michaela Fiedlerová
BA Andreas Gajdošík – from October 2016
MSc Pavel Maxera
BSc Libor Zvěřina – until 22 July 2016

2.4 Representation of BUT among universities

Czech Rectors Conference

Prof. Dr MSc Petr Štěpánek, PhD

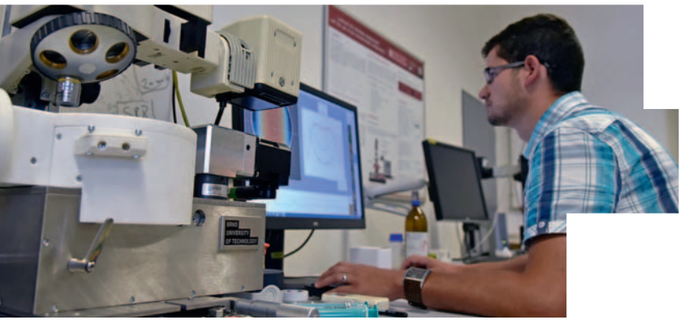
BUT representatives on the Board of Higher Education (BHU)

Members of the BHU presidium:
Dr Pavel Popela, PhD

Members of the BHU assembly:
MSc Helena Hanušová, PhD
MSc Ivana Jakubová
MSc Radek Kočí, PhD
Assoc. Prof. Dr MSc Gabriel Kopáčik
Assoc. Prof. MSc Libor Matějka, PhD, MBA
Assoc. Prof. MSc Bohumil Pacal, PhD
Dr Pavel Popela, PhD
MSc Jan Roupec
Prof. Dr Milada Vávrová, PhD
MSc Jan Zálešák, PhD

Members of the Student Chamber of the BHU:
MSc Pavel Maxera – delegate
MSc et MSc Michaela Fiedlerová – substitute – until 2 May 2016
BSc Jiří Haratek – substitute – from 3 May 2016

Member of the Assembly of the Academy of Sciences of the Czech Republic and member of the Supervisory Board of the ASCR (delegated by BHU):
Prof. Dr Milada Vávrová, PhD



2.5 Mission, vision and strategic objectives of BUT

Brno University of Technology ranks among the top universities in the Czech Republic and aspires to reach excellence not only in the sphere of education, but also in science, research and cooperation with the application sphere. BUT also aspires to fulfill its third role, that is, in the social sphere. In the field of science, research and innovation, BUT strives to intensify its cooperation with industry, including the public sphere, where it remains committed to creating the best possible conditions for creative work, technology transfer and growth of innovation potential.

BUT makes a worthy partner to major workplaces and constantly strives to improve the level of educational activities connecting not only technical, but also artistic and economic specializations, creating an attractive environment for students, professionals and researchers. The future of BUT is oriented on cooperation with other technical universities, both in the Czech Republic and abroad. One of the objectives is to maintain and strengthen the position of BUT not only in the region but also from the trans-regional perspective.

2.6 Changes in the internal regulations of Brno University of Technology in 2016

With regard to the amendment to the Higher Education Act No. 137/2016 Coll., it is the responsibility of each higher education institution to adapt its internal regulations to the current version of the law. In 2016, the management of the BUT started to prepare new regulations. The first regulation prepared was the Statute of the Brno University of Technology. This internal regulation was approved by the Academic Senate of BUT on 27 September 2016 and was registered by the Ministry of Education and Science on 25 October 2016. Other internal regulations will follow in the course of 2017.

2.7 Providing information pursuant to § 18 of Act no. 106/1999 Coll. On Free Access to Information

In 2016, BUT received a total of 5 requests for information under the aforementioned Act. All information was provided, so no decision to reject the request or appeal against such a decision was issued.

3

DEGREE PROGRAMS, ORGANIZATION OF STUDY AND EDUCATIONAL ACTIVITIES

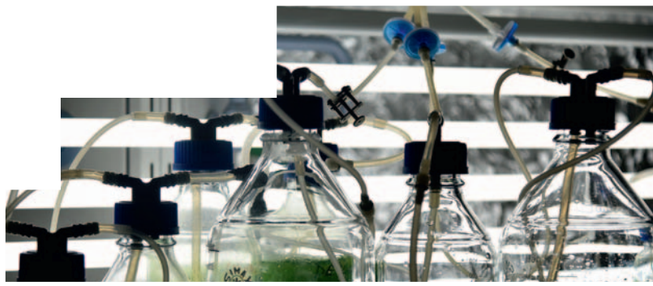
3.1 Number of accredited degree programs

BUT registered a total of 97 accredited study programs at the end of 2016. More information is in the table of the annual report (Table 2.1).

3.2 Other educational activities (outside the implementation of accredited study programs)

In 2016, there were 204 courses organized by the Institute of Lifelong Learning on 88 different topics. These courses were attended by 1,969 BUT employees. The Institute of Lifelong Learning also organized courses in international aviation law certified by the Ministry of Transport of the Czech Republic.

Through the lifelong learning program, BUT offers courses focused on particular professions and interests, as well as a program of the University of the Third Age. More information is in the table of the Annual Report (Tables 2.6 and 2.7).



4

STUDENTS

4.1 Measures to reduce academic failure

All the necessary information about BUT study is available at www.vutbr.cz. There is also a separate web portal at www.navut.cz where one will find all the information about the BUT admission procedures.

BUT offers preparatory courses in mathematics, physics and other subjects. Successful graduates of these courses can significantly increase their chances of admission. In the first year of study, new students can enroll in Selected Chapters in Mathematics or Selected Chapters in Physics, etc. These optional subjects help to balance the different levels of students from different secondary schools. For example, FEEC offers the Summer School of Electrical Engineering organized before the beginning of the academic year. The school is offered for grammar school graduates who are to start their studies in electrical engineering in September. This course also serves to balance the entry level of students from different types of secondary schools. An overview of study failure is given in Table 3.3.

4.2 Measures applied to limit the extension of studies

Here we can also mention the optional and preparatory courses that help improve the entry level of students. However, BUT academic staff primarily seeks to motivate students to complete their studies within the standard duration of study without any unnecessary prolongation.

The university is obliged by law to collect fees associated with the above-standard length of study. This financial instrument also motivates students to complete their studies in the time limit specified by law.

4.3 BUT and specific scholarship programs

In 2016, BUT offered the attractive scholarship program TOP 500, which is intended for the best 500 secondary school graduates to enroll at BUT. Unfortunately, the scholarship can be obtained only by graduates of a Czech public school, thus no Slovak students are eligible. The algorithm is set in a way to give a better chance to obtain this one-off scholarship in the amount of 6,000 CZK to those who choose mathematics and English in the compulsory part of the exam. The chances are also better for those who choose a more demanding version of the Mathematics + exam in the optional section. The TOP 500 scholarship is an important marketing instrument aimed at applicants who find the amount of 6,000 CZK very motivating.

In addition, all BUT students can receive a scholarship for excellent study results or grade point average; a social scholarship for students handicapped by insufficient socio-economic background; or an extraordinary scholarship, if they are strongly involved in school activities (for example, helping organize study fairs or presenting BUT to high school students).

The Student Chamber of the Academic Senate of BUT offers active students the opportunity to obtain funding for their project from an internal grant agency. Simply submitting a project and defending it in front of a commission can result in a monetary contribution of up to ten thousand crowns from university resources for selected student projects. Table 3.4 provides a more detailed overview of the amounts of the scholarships provided.

4.4 Advisory services for students provided at BUT

The Institute of Lifelong Learning of BUT (hereinafter ILL) has been providing BUT students with counseling services since 2006. Their main activities are focused on career counseling (group and individual), socio-psychological and legal counseling, and providing for students with special study needs, as well as on collaboration with companies and other organizations; counseling services may partly overlap. As shown by the feedback, students are satisfied with the services. The following are examples of counseling services at BUT:

Career counseling and soft skills development:
The service offers group activities with the aim of developing soft skills: stress management, presentation skills, development of teamwork, etc. It also organizes courses preparing students for job interviews – How to Write a CV, use of the Assessment Centre, business preparation, business presentations, Job Challenge Fair. These services prepare BUT graduates to enter the labor market and thus help to increase their employability. During 2016, there were 108 courses of this type.

Psychological counseling:
ILL offers the opportunity of personal development either in a group or individually helping manage difficult life situations, relationship problems, study and adaptation difficulties. In 2016, it provided 269 psychological consultations.

Study counseling:
ILL also offers BUT students study orientation during which the first year students become familiar with their course of study, the university facilities, information systems and their classmates. In 2016, the Institute organized 9 adaptation groups called "Vuťákoviny".

4.5 Identification and support of students with specific needs

Applicants and students with specific needs (e.g. specific learning disability, impaired health, mental illness, chronic and somatic diseases) are provided with support based on the Ministry of Education standards for this area. Services of the Institute offer the possibility to adapt the admission procedure and to organize the studies using supportive measures. In 2016, the individual courses aimed at the development of self-presentation skills were organized. These courses were attended by 11 students. In the summer semester, individual physics lessons were conducted to a total of 39 hours.

In 2016, 137 BUT students with special needs benefitted from a total of 842 hours of the above-mentioned services. The services include individual lessons of English and Czech, mathematics, physics, strength of materials, statics, interpretation into Czech sign language, simultaneous transcription, content writing, articulation interpreting, help with spatial orientation or individual counseling to adapt the studies.

Students with health disabilities (e.g. attention disorders, mood disorders, anxiety, sleep disorders) are offered nervous system training using the EEG Biofeedback method, which is a modern method of mental performance training using a specific electroencephalograph. EEG Biofeedback is provided by two certified therapists. In 2016, there were 175 individual one-hour Biofeedback sessions.

ILL offers students with social disadvantage free social-legal counseling, aimed at providing information on the eligibility for state support benefits, scholarships related to the student's social situation provided under the Higher Education Act and scholarships provided by foundations operating in the Czech Republic. Counseling is provided by a counseling specialist. Students reach these services individually on the basis of information obtained on the website and the social network, or through the study departments.

Students with specific needs are informed about the counseling and other services of the Institute of Lifelong Learning. In 2016, the original consulting center Over the Blocks was renamed to the Alfons Center. This rebranding also included the launch of the new modern website http://alfons.vutbr.cz/. The counseling center can be contacted by all BUT students or applicants for study at BUT who have specific needs.

4.6 Support of exceptionally gifted students and BUT applicants

Gifted students are mainly approached by the individual faculties were the students are studying. These faculties or BUT constituent parts can reward them with the aforementioned benefits or scholarships. They also have the opportunity to nominate students for the Rector's Prize or for various external competitions (e.g. Josef Hlávka Award for Gifted Students, Werner von Siements Prize).

These talented students can get faculty support for participation at foreign professional conferences, where they are further educated and expand their portfolio of professional knowledge. PhD students can get funding through their participation in specific research. Students can become involved directly in specific scientific projects, which they will use in their professional resumes.

Thanks to the one-off TOP 500 scholarship program, BUT tries to select the best 500 BUT applicants. It gives BUT the chance to work with extraordinarily talented students from the very beginning of their university studies.

4.7 Support and identification of socio-economically challenged students

Every BUT student in Brno has the right to apply for a social scholarship, which is intended for young people from socio-economically disadvantaged conditions. This application is then considered. BUT does not make a search to identify the individual students who may qualify. Everything happens at the request of a student who has the free will to decide whether to ask for this help.

As mentioned in Chapter 4.5, ILL BUT offers students free social and legal counseling (the possibility to apply for a social scholarship offered by BUT or selected foundations, assistance with claiming social benefits, etc.).

4.8 Support of parenting students

At FEEC BUT in Brno there is the children's group Edisonka for children of BUT employees and students. Edisonka is housed at 12 Technická Street in the building of FEEC. However, it can be temporarily utilized by the staff or students of all BUT faculties. Edisonka is not a regular nursery school, but a babysitting corner in the form of a mini-school. For more information visit http://skolka.agentura-provas.cz/.

BUT also allows student-parents to apply for interruption of their studies, as parenthood is considered to be a legitimate reason to comply with this request. If a student participates in various scientific projects, it is possible to temporarily reduce this time to suit the student-parent. Another option is to agree on flexible working hours or an individual study plan.

5

GRADUATES

5.1 Cooperation and contact of BUT with its graduates

BUT graduates are offered a wide range of possibilities to stay in touch with their alma mater. Professional lectures, counseling and social gatherings are regularly organized by the Club of Graduates, Friends of the Faculty of Electrical Engineering and Communication Technologies and the Faculty of Information Technology (FIT). Maintaining long-term communication relationships with graduates is also the objective of the voluntary SAFAST association at the Faculty of Civil Engineering.

In 2016, FIT organized for its graduates a large-scale event called Homecoming, hosted a 50 year reunion for graduates of the Faculty of Electrical Engineering (as FIT branched out from this faculty in the past).

The graduates are also regularly informed about the most important events at the University in the electronic newsletter VUTARIUM, which brings an overview of the most important events and invitations to selected events that are open to the public and may also be attended by unregistered graduates. Contact with graduates is facilitated via the Internet portal www.vutbr.cz/absolventi. This includes updated information on successful graduates, further education opportunities at BUT, results of regular graduate surveys, a database of graduates and final theses, as well as job offers and cultural and sporting opportunities at BUT.

5.2 BUT graduate employability surveys, measurement for employability increase, surveys of graduate employability and a follow-up reflection of the content of study programs

FIT graduates have the highest starting salaries, are quickly employed in the field of their specializations and often found by the employers themselves. This is the result of the BUT graduate survey addressing nearly 4,000 BUT graduates from 2013 and 2014. More than one-third of them answered a questionnaire of their alma mater. The results of this unique graduate survey were published in 2016 and are available at www.vutbr.cz/absolventi.

The survey revealed that 99% of FIT graduates work within a quarter of a year of their graduation. In addition, almost one-third of respondents landed a job by being addressed directly by the employers themselves. In addition, IT graduates are clearly superior to their classmates in terms of their starting salaries. The average FIT graduate's salary is 32,734 CZK. Their employer is most often a foreign or multinational company. The share of these employers is growing steadily. According to surveys from 2007 and 2008, the number of former IT students in such companies has increased from 18% to 43%.

Similarly, the graduates of the Faculty of Mechanical Engineering also have a high degree of placement, as 91% have found work within three months of graduation. The number increased to 98% when considering 1 year after graduation. However, the respondents landed their jobs most often by answering a job ad. This was stated by 38% of the respondents. The average BUT graduate's salary is 23,787 CZK. Those who are above this average are usually IT specialists, engineers and electrotechnicians.

Most BUT graduates work in the positions of corporate employees, but young architects or graduates of the Institute of Forensic Engineering often choose the possibility of private business. The graduates of the Faculty of Civil Engineering are mostly employed in Czech private companies. This also applies to graduates of the Faculty of Chemistry, who often find jobs in the public or state sector.

BUT has been conducting extensive graduate surveys regularly since 2003. The last survey unfortunately did not reach a sufficient level of returns from the graduates of the Faculty of Fine Arts. These numbers could not be generalized due to the low number of respondents.

In 2016, there was research on the employers of BUT graduates as well. A record number of companies and institutions (195) employing BUT graduates were interviewed. The database for addressing them is a multi-source: BUT asks about employers of both graduates and those students who are at the end of their postgraduate studies (a large number of them already work or have a job waiting). BUT also addresses advertisers of job positions on websites and social networks managed by the BUT Rector's Office and individual faculties.

The research also includes the question of missing specialists in the fields that are taught or could be created at BUT, both at bachelor's and subsequent master's levels. The interest in Ph.D. graduates was investigated for the first time. Other outputs provide feedback on specific aspects of education: from the interest of graduates to obtain language certificates, standardized professional (field) certificates to a requirement of gaining professional experience in the course of study.

In 2016, the already mentioned survey among the senior master's students was carried out. Its aim was to evaluate individual aspects of study and its complexity, as well as readiness for practice. It also investigated whether students are already working, whether they have a job waiting, how they landed the jobs and whether some of the BUT activities helped.

5.3 Cooperation with prospective employers of BUT graduates

BUT's cooperation with companies, institutions and future employers takes place at two levels. The first is professional cooperation through technology transfer, i.e. collaboration between the university and enterprise on joint projects that leads to innovation and optimization of production.

BUT faculties seek to establish effective links with the commercial sector to maximize employability of their graduates. They utilize the capabilities of potential employers to deliver external lecturers and company presentations, host educational field trips at their workplaces and assign topics of dissertations. The selected faculties and constituent parts use their websites to publish offers of traineeships and internships as well as to advertise job vacancies for their students and graduates.

The individual faculties address specific employers according to their specializations. On the occasion of the Day of Firms (FME BUT), PerFEKT Job Fair (FEEC), or the Day of Chemistry (FCH), students have the opportunity to obtain job offers or internships from specific companies. BUT is also involved in the organization of JobChallenge and iKariera Fairs – the largest job fairs in Brno, organized by the student organization IAESTE.

6

INTEREST OF BUT APPLICANTS IN STUDIES

6.1 Characterization of entrance exams

BUT has established a system of written entrance examinations for all degree programs in the core subjects of the faculties (mathematics, physics, chemistry, computer science, general scholastic aptitude and foreign language). Some faculties also take into account the examinations of the private company Scio (National Comparative Exam) and in the artistic and architectural fields, the applicants must also pass a specific aptitude test. Based on their guidelines for admissions, most of the faculties can waive the entrance examination under precisely defined conditions. Some of them reflect the results of the "maturita (secondary school leaving) exam" or the study average at secondary school.

For example, FEEC BUT organizes the Mercury PerFEKT Challenge for high school teams, where students have to design Mercury kits and program them to be autonomous. Winners of this competition can then be admitted with a waiver of the entrance exam. In the Business Point competition at the Faculty of Business and Management, the high school students solve a case study for a commercial company and present marketing strategies for specific products. The best ones can then be admitted to the faculty without an entrance exam. High school competitions are offered by other BUT faculties as well.

6.2 Promotional cooperation of BUT with secondary schools

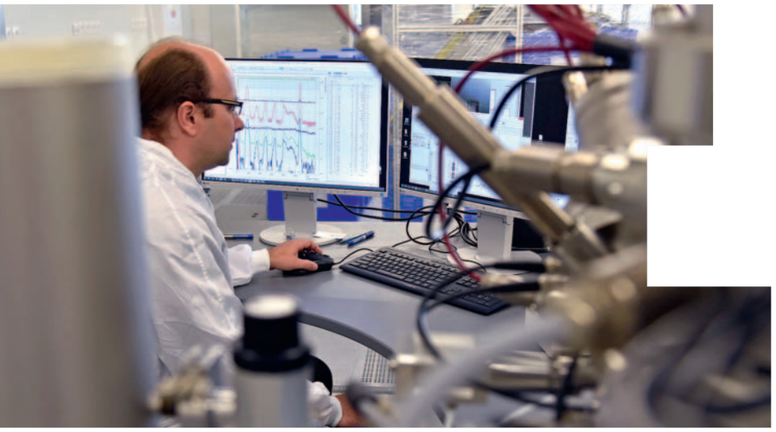
BUT applicants can enter the special web site www.navut.cz, which provides detailed information about specializations and the admission procedure. A Facebook page with information on current events also serves to promote BUT. Every year, BUT participates in the Majáles student festival, which takes place in May at the Brno Exhibition Center and is attended by thousands of students from secondary schools and universities. Students interested in studies can also visit the Night of Scientists. This promotional event brings the general public practical examples from the activities of individual faculties.

BUT has traditionally been involved in secondary education, where experts supervise the projects of secondary schools students, allow them to work in the laboratories and premises of the university and provide them with professional mentoring. BUT also organizes meetings with the directors of selected secondary schools; the last meeting of this character took place at the Faculty of Chemistry in March 2016. BUT addresses mainly the directors of those schools supplying successful winners of the TOP 500 scholarship program. BUT also monitors which secondary schools most of the applicants come from and offers these schools closer cooperation.

The Rector's Office organizes the Road Show, whose aim it is to inform high school students about study opportunities at BUT. Individual faculties also address relevant secondary schools according to their specializations; this can be illustrated by the Faculty of Civil Engineering, whose presentations at secondary schools are focused on construction.

Secondary school teams compete every year in the popular Mercury PerFEKT Challenge (http://www.feec.vutbr.cz/merkur/). Its goal is to assemble and put into motion a device assembled from a popular metal kit according to specifications. Similar competitions for secondary school students are also organized by other faculties. The Faculty of Mechanical Engineering regularly organizes the Internet Mathematics Olympiad for secondary schools. In November 2016, there were 214 teams from 117 secondary schools from the Czech and Slovak Republics participating in the 9th year of this competition (more information at http://matholymp.fme.vutbr.cz/). Other competitions of this type are also organized by other BUT faculties.

7



EMPLOYEES

7.1 Career Code for academic staff and motivational revenue tools for employees based on achieved results

BUT does not have an elaborated career code for academic staff; nevertheless, once a year the performance of individual employees is evaluated, determining the variable component of wages for the next period. The employees have the opportunity to get extra bonuses while ensuring superior one-off tasks.

7.2 Development of pedagogical skills of academic staff

The Institute of Lifelong Learning provides teachers with a comprehensive pedagogical education to complete their specialization, which is usually technically-oriented and used effectively in the educational process. The study program includes three main areas: pedagogical-didactic, psycho-social and pedagogical-managerial. Each of these areas contains several thematic blocks of study.

7.3 Support of parenting employees

As mentioned in 4.8, there is the group Edisonka at FEEC for children of BUT employees and students. Edisonka is housed at 12 Technická Street in the building of FEEC. However, it can be temporarily utilized by the staff or students of all BUT faculties. Edisonka is not a regular nursery school, but a babysitting corner in the form of a mini-school.

Employees-parents also have the opportunity to apply for a change in their work load, such as temporarily reducing it to suit their childcare needs. Another option is flexible working hours with respect to parental responsibilities. In urgent cases of extraordinary childcare, employees are allowed to work individually for a fixed period of time. At BUT the parental leave is not used only by women, but in a great extent also by men.

8

INTERNATIONALIZATION

8.1 Support of participation of students in foreign mobility programs

The BUT strategy of internationalization is in line with the Strategic Plan of the Ministry of Education, Youth and Sports for 2016–2020. The priorities for 2016 were determined by updating the Strategic Plan for 2016 and a long-term strategy in the area of international relations.

BUT supports the participation of students in foreign mobility programs by promoting and presenting available mobility programs, both in printed and electronic versions and keeps university web pages continuously updated. The Department of Foreign Relations organizes information seminars providing the potential candidates with basic information on mobility opportunities. There is also less formal contact with the students who have already completed study abroad and can share practical study information and life experience acquired abroad. BUT also organizes a photo competition for students who participated in international mobility programs (2016 was the 3rd year of this competition). This competition contributes to promoting student mobility abroad in a friendly and popular way.

BUT strives to recognize all or at least the vast majority of credits earned abroad so that the foreign mobility does not create an obstacle to the completion of studies in the standard time.

The Rector's Directive No. 1/2016, Recognizing the Results of Foreign Visitors for BUT Students, was issued with effect from January 19, 2016. The directive sets uniform rules for the recognition of the results of foreign mobility, both for study visits and student internships. This directive sets out the necessary formalities that must be made before the departure and defines the obligations of the participating contracting parties, while at the same time guaranteeing recognition of the study that the student did abroad. The directive also strongly encourages students to carefully and responsibly select a foreign partner, i.e. an institution, college or company, so that the study program or study orientation is sufficiently relevant to the student's study program. That means the subject and specialization of the foreign company are sufficiently connected with the study program or specialization of the student and the appropriate expertise of the company is guaranteed. Outgoing BUT students are expected to choose the courses that they intend to study at a foreign university so that their profiles correspond with the BUT specializations in the best possible way; this is so that replacing the subjects that the student would have studied at BUT would be possible. On the other hand, the university allows outgoing students flexible adaptation of their study plans. That means the student can register other subjects in a different order, year, etc.

The participation of BUT students in foreign mobility programs is also supported through sources other than Erasmus +, namely other mobility programs such as ACTION, AIA, Norwegian Funds, CEEPUS. The mobilities are also covered by institutional development projects supporting foreign mobility of BUT students and academic staff. These projects also support the international cooperation of BUT, which is widely used by both the students and academic staff.

Technically, the BUT activities leading to the simplification and automation of administrative and organizational processes of mobility are also supportive in this aspect. The proof is the advanced stage of completing the electronization of the administrative agendas of the Erasmus + program.

8.2 Integration of foreign members of the academic community

The integration of foreign members of the academic community into the life of the university is one of BUT's priorities in this and the following periods. Given that BUT offers considerable scientific and research potential concentrated in its research centers, the interest of foreign academic and scientific staff is growing.

BUT is striving to integrate foreign staff into the life of the academic community. An example is Welcome Services, which are becoming more and more necessary. Reflecting the expected increase in the number of incoming foreign staff (already this year), the Welcome Services were developed and further elaborated over the course of 2016. This concept does not include only services for foreign staff before their arrival, but above all services during their stay at BUT. The services are also extended to the accompanying family members. Some of these services are organized by BUT itself, some are the result of gradual cooperation with external agencies, for example, the South Moravian Center for the Integration of Foreigners or the EXPAT Center.

This kind of activity is growing and expanding as the number of foreign staff changes and the need to integrate them into the BUT academic community is increasing. The concept and gradual implementation of these activities is a step in the effort to integrate the foreign members of the academic community into the life of BUT. Other steps in this area will follow in 2017.

9

RESEARCH, DEVELOPMENT, ARTISTIC AND OTHER CREATIVE ACTIVITIES

In 2016, BUT focused its research activities on achieving the status of important and in-demand research university in Europe and globally. BUT has become a respectable partner of important scientific workplaces, is expanding its relations with the Academy of Sciences of the Czech Republic and has been profiled for a long time by a balanced proportion of basic, applied and contractual research with high innovation potential. Research, development, artistic and other creative activities are carried out at faculties and university departments through individual institutes, research laboratories and, in particular, newly established research centers built within the operational programs. In line with the Plan for Implementation of the BUT Strategic Plan in 2016, the research units were strengthened in terms of personnel and material equipment, so that the R & D at BUT continually increased at an international level. Most of the research activities were covered by grants, institutional support and direct cooperation with the application sphere. Researchers from the individual faculties and institutes won projects from grant agencies and departmental providers and, in particular, they increasingly established international cooperation. As a result of this approach, there is a relatively high number of new and successful research projects from the Grant Agency, the Technology Agency of the Czech Republic, research programs of the Czech ministries and contractual research performed in cooperation with companies. The targeted funds were mostly obtained from the Ministry of Industry and Trade and the Ministry of the Interior of the Czech Republic.

BUT is steadily increasing its creative activities and international prestige. Reflecting the transnational nature of scientific knowledge, international cooperation is a crucial aspect of scientific work, and its support was also a priority in 2016. The research was oriented mainly on successfully establishing international cooperation. There were 14 consortia dealing with the H2020 projects in 2016. The research teams from BUT are involved in international projects through EEA, Eurostars, Contact, COST, EUREKA, Interreg and the regional SoMoPro challenge.

The faculties and constituent parts have long been trying to achieve excellent results in publishing, applied research, and international excellence. In order to increase the competitiveness of BUT scientific and research activities, a significant increase of international research team cooperation and a growth of foreign funding are becoming priorities.

Reflecting the newly prepared conditions for financing higher education and research in the Czech Republic, this activity is of fundamental importance for the further development of the university. It is therefore appropriate for all university constituents to prepare and gradually introduce incentive assessments of research, development, artistic and other creative activities.

The basic goal in science and research (R&D) was to meet the objectives of the Plan for the Implementation of the BUT Strategic Plan, especially its updates for 2016. The activities of the university and its constituent's management, academic and research staff and doctoral students respected these long-term goals of becoming a major educational and research institution on a regional, national and international scale and of constantly improving its reputation.

Another objective is to increase institutional funding of the long-term conceptual development of science and research. It is reached particularly through quality publishing and the gradual increase of applied research. BUT, with its scientific research and creative capacity, ranks among the most prestigious universities in the Czech Republic, which can be documented not only by means of scientific and research resources but also by the quality of outputs.

In 2016, all research centers built through the Structural Funds entered their sustainability phase. Significant financial support comes from the NHI I and NHI II projects that help meet sustainability indicators. In the following period, the research teams of the university will be involved in two major infrastructure projects: at the Central European Institute of Technology, BUT will address nanomaterial; at the CVVOZE Center, it will address the PowerLab project.

In 2016, the scientific teams prepared the OP RDE and OP EIC projects. The key principle of OP RDE is the development of human resources for the knowledge economy and support of quality research, for which a skilled labor force is a key input factor.

The interventions are aimed at achieving top level Czech research on an international scale, improving cooperation in research and raising the quality of infrastructure conditions for the preparation of future researchers. Unfortunately, this period shows a considerable delay, as none of the announced calls that BUT joined were evaluated in 2016.

The results of BUT activities are also included in the Register of Artistic Outputs; in certain sections it even ranks among the most active non-art schools. The university is gaining publicity through projects dedicated to the popularization of science and by linking up with activities of the City of Brno and the South Moravian Region. BUT is significantly involved in SoMoPro – a project for top international scientists who are helping the school create competitive research teams and bring excellent scientific outputs.

The university has been gradually building centralized project support, which is particularly important for designing university-wide projects. In 2016, great attention was paid to applied and contractual research projects specifically addressing the innovation needs of the application sphere. This includes the transfer of protected scientific and research results into the application sphere.

BUT is successfully involved in the Chance project of TA CR Gama. This is the pilot specification assigned by an internal grant agency selecting the sub-projects of the faculties and constituents on the basis of an assessment by the Commercialization Council. The council is composed of both

experts from the application sphere and senior university researchers. In general, these projects have strong application potential and their results are primarily intended for commercialization.

The Czech system of R&D funding greatly depends on targeted (project) financing, which results in the considerable instability of research teams. In 2016, there were almost 380 research projects supported by national providers and 190 projects of specific university research, which at least partially helped improve doctoral and Master's studies in all accredited fields.

The basic pillar of research funding lies in the national providers of targeted support. In 2016, the university dealt with a total of 93 GA CR projects, 156 TA CR projects (of which 17 comprised Canters of Competence and 31 MPO and TRIO1 projects, which are very important and strongly application-oriented), 11 projects of the Ministry of the Interior and 5 projects of the Ministry of Agriculture. The Ministry of Education, Youth and Sports projects (MOBILITY, KONTAKT, INGO, COST, EUREKA) represented another 52 projects.

BUT staff have been publishing an increasing number of scientific articles indexed on the Web of Knowledge. It is gratifying that the number of publications in the first and second quartiles increased, which indicates the gradual improvement of quality of these articles. This trend is significantly facilitated by the time-proven incentive system, which remunerates the staff and Ph.D. students for a significant share of quality publications.

9.1 Linking up creative and educational activities

The development and progress of educational activities is interlinked with those of creative activities; therefore, BUT seeks to link these two areas. For example, the excellent results in sciences and technology are increasingly included into the curricula of both specialized and general educational subjects.

The individual faculties and constituent parts are linking up creative and educational activities by adopting new approaches to teaching specializations and by creating electronic support. They are also increasing the participation of experts from the private and government sectors in both the regular and distance forms of study. This form of education is supported by both domestic and foreign lecturers from the professional community.

Bachelor and diploma theses primarily define themes corresponding to the actual needs of basic, applied and contractual research. This area benefits from established cooperation with participating research organizations and companies. Increased attention is also paid to the evaluation of knowledge gained during internships.

The participation of the majority of doctoral students in some forms of teaching, especially in laboratory and computer seminars is also important.

9.2 Engaging bachelor's and master's students in creative activities

The link between educational and creative activities has been strengthened by engaging students in independent creative work. Students of master's and doctoral study programs form the core of the IGA research projects funded by specific research. The purpose of IGA is not only to support the scientific activities of doctoral students, but also the activities of talented master's students.

The IGA competition is organized at BUT according to the Rector's Directive, involving three types of projects with student participation. These are the standard projects, usually multi-annual, with more comprehensive scientific content, as well as junior projects carried out at faculties and departments, and junior inter-faculty projects on mainly interdisciplinary topics. In 2016, specific support for 190 university research projects was provided in the amount of almost 90 million CZK.

The outputs of the projects are defended at annual student conferences at individual faculties (e.g. Excel@FIT, EEICT, Chemistry is Life, Junorstav). The objectivity of the evaluation is highlighted by the presence of experts working outside BUT, mostly staff of renowned companies who sit in the commissions as evaluators.

9.3 Targeted funds for research, development and innovation gained in 2016

In 2016, BUT participated in 90 project consortia submitting proposals for new projects to Horizon 2020 – the 8th Framework Program for Research and Innovation, the largest and most important program that finances European science, research and innovations in 2014–2020.

In 2016, BUT received a promise of having 12 projects financed and 14 H2020 projects were carried out. Successful applicants are the experts who registered in the ICT programs, the Marie Sklodowska-Curie programs, which promote researcher mobility, the ECSEL Joint Technology Initiative Programs, as well as the RFCS program – the Coal Steel Research Fund and others. The total value of these projects exceeded 5 million €.

The following overview shows the non-investment targeted funds for research, development and innovations, which BUT received in 2016, how many of them were spent on grants and projects directly at BUT and how many of them BUT distributed to co-authors:

Total targeted subsidies including operational programs (in CZK)

BUT subsidies	1 133 070
Transfer from the main researcher to BUT	245 303
Subsidies transferred to co-researcher outside BUT	–153 024
Refunds	–9 227
Total	**1 216 123**

9.4 Support of doctoral students and employees in post-doctoral positions

The basic concept of supporting Ph.D. students lies in an individual approach to creative activity during doctoral studies, their involvement in basic and applied research projects and the search and support of their mobilities. The doctoral dissertations are expected to be linked to the long-term research activities of the workplaces where the doctoral study programs are accredited. BUT increasingly expects every Ph.D. student to spend at least six continuous months at a cooperating foreign workplace. In terms of professional growth and contractual research, internships in industrial enterprises are also supported. Active students often become members of the research teams of individual projects from national and international grant providers, as well as applied research and technology voucher projects. It goes without saying that the modern infrastructures built in the previous operational period from the EU Structural Funds are used to solve the tasks. Experience with modern infrastructures and devices significantly improve the quality of graduates in the labor market, especially in technical specializations. Seven research centers created new positions for Ph.D. graduates. These positions were predominantly filled by talented graduates from BUT. An important role is played by SoMoPro and Ph.D. Talent projects in which BUT post-doctoral students are involved.

9.5 Share of application sphere in the creation and implementation of degree programs

Cooperation with the application sphere is carried out in the form of excursions, student internships and professional lectures delivered by external experts during the regular courses. In some faculties and departments, newly-developed study programs are consulted with the representatives of industrial companies where the graduates are finding jobs.

Turn-key specializations satisfying the labor market are emerging. An example is the master's degree program Production of Automotive and Technical Lighting at the Faculty of Mechanical Engineering, which was established in cooperation with automobile lighting manufacturers (Automotive Lighting, Hella and Škoda Auto).

Experts from the application sphere supervise or consult on the assignments of bachelor and master theses. Feedback for the companies is represented by the gained knowledge of university education and for students by the ability to apply their knowledge and outcomes in the defense of the theses and at the student scientific conferences.

The involvement of students in innovative vouchers is highly appreciated. These activities involve direct co-operation with the application sphere in various fields, which contributes to the extension of practical teaching, use of material equipment and a deeper understanding of industrial conditions.

9.6 Cooperation with industry on the development and transfer of innovations and their commercialization

BUT has a system of rules for cooperation with the application sphere, the transfer of innovations and the commercialization of the results of science and research. These activities are managed by the Technology Transfer Department (formerly the Technology Transfer Center). The main objective of the department is to monitor the real needs of industry depending on the research, in the appropriate time horizon.

Technology transfer at BUT currently involves two different processes: the first one is the application of scientific knowledge in practice. This represents mostly patents, utility and industrial designs for new technologies, knowledge of new materials, products, software, analytical methods, etc. The second principle, launched in 2016, maps the application sphere from the perspective of the research teams to find out the areas of applied research so that the innovations have their economic potential.

BUT addresses several projects of collaborative contractual research, whose results are offered for commercialization. These are selected on the basis of their assessment by the Commercialization Council, consisting of both professional specialists and senior BUT scientists, which guarantees quality of the selection.

Other types of cooperation are economic contracts for industrial partners where BUT employees deal with analyzes and expert studies, optimization of technological processes, software customization and other services. BUT was successful in four cases and gained the OP EIC projects. Knowledge Transfer Partnerships, through which it participates in the implementation of innovations directly in the cooperating company.

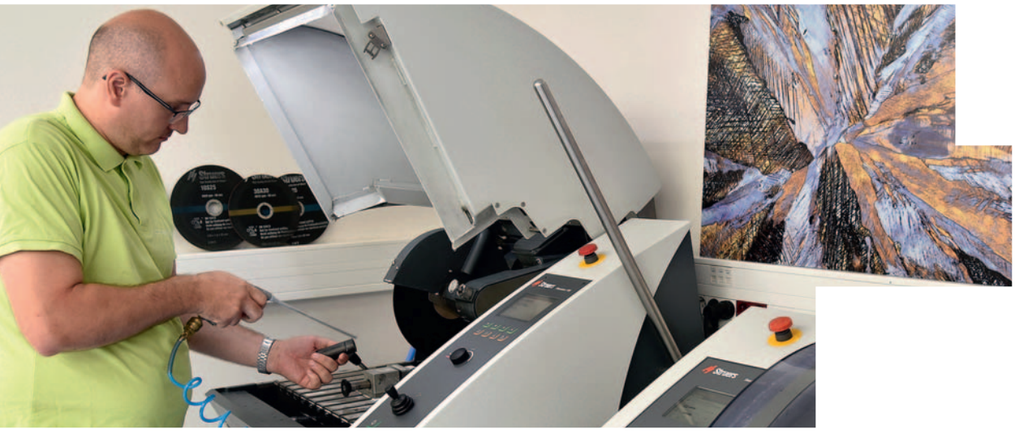
9.7 Support of horizontal (i.e. intersect oral) mobility of students and academics

BUT cooperates especially with the Association of Innovative Entrepreneurship, which organizes lectures and seminars for staff and students with the support of the Technology Transfer Department. The aim is to ensure that the research, development and innovation potential of BUT is commercially mature in the form of new products and gains the opportunity to enter the domestic or foreign market.

Academic staff of BUT regularly participate in professional events focused on this issue. One of the addressed topics is how to improve the transfer of knowledge from researchers to investors who can practically exploit their discoveries and inventions in specific areas. Specialized seminars are organized by Transfera, in which BUT is a full member. BUT participates in cross-border cooperation projects and bilateral mobility projects for young academics and students.

A significant contribution in this area is also made by the South Moravian Innovation Center, which is located close to the Technology Park and therefore in the proximity of several BUT faculties. The BUT students and staff are offered a wide range of workshops and lectures in the field of innovative entrepreneurship. The Center offers the background for emerging start-ups, which are often started by BUT students and graduates.

10



QUALITY ASSURANCE AND EVALUATION OF ACTIVITIES

BUT intensively and comprehensively monitors the quality of all main processes (the quality of education, creative activities, cooperation with the outside world or internationalization), the quality of management and support processes (economic, control, administrative, etc.) in connection with the mission, vision and strategy of BUT.

The quality of all areas is monitored by the Department of Quality (DQ), which comprises a separate component of the Rector's Office and reports directly to the Rector and freely exceeds the faculties and other BUT components. The DQ has a matrix type of organizational structure – each area of quality management is attended by a DQ employee in collaboration with the corresponding Vice-Rector or Bursar.

In the long term, the development and adaptation of the internal quality management system to national and international requirements is ensured, focusing both on quality assurance and on quality assessment. Quality assurance involves creating conditions for the origin of a quality product or result. This is based on an analysis of processes, which has been gradually expanding for several years from the rector's office to other BUT components, and is based on the international ISO system, the suitability of which has been verified in many sectors, including higher education. The results obtained by the DQ in cooperation with the management of the given components are passed on to the owners of the individual processes and the members of the middle and top academic management for further use. The conditions and tools for the development of process management are systematically created and improved.

For internal quality evaluation in a comprehensive concept, the procedures based on EFQM methodologies are prepared in a form modified for the environment, activities and processes of the university. The results serve for decision-making at various levels of management, for defining the strategy for the next period, and for creating strategic documents.

In 2016, BUT staff participated significantly in the preparation of the amendment to the Higher Education Act No. 11/1998 Coll. and the relevant subordinate regulations, both for the university and the national representatives of universities and the Ministry of Education, Youth and Sport.

After the amendment coming into force in September 2016, its extensive implementation followed, which is still far from being complete and due to the prevailing content of the amendment and introduced changes, it concerns mainly several types of accreditation including the establishment of a new body – a Quality Council that will have a strong influence and competences in all areas of activities.

Successful implementation of the amendment to the Higher Education Act requires awareness-raising to understand and address the issues of quality, increase its culture and cooperation across the academic BUT community through publications, whole-university seminars or discussions, including students as active partners. That is why the Quality Day was successfully organized five times in 2016 and proved to be a significant contribution having different thematic contents. The problems of quality were dealt with by the Rector's councils, the councils of faculty deans and academic senates at the level of the university and faculties.

The BUT management and academic community are aware that the education and training of students in the form of professionally and generally educated graduates with chances of finding long-term employment is a determining factor for each higher education institution. Therefore, they focus their attention on the area of education, respecting its interdependence at all levels of the school system.

Systematic quality assurance and assessment of the educational process take place at all BUT faculties or constituents that provide instruction. These activities are in the jurisdiction of management, the subject councils for degree programs and courses, and course supervisors in the individual faculties/constituents. They also involve the members of the Council for Quality of BUT from the particular faculty or constituent. The interested authorities tackle any problems immediately; however, they meet regularly at the end of semester to summarize the results and experience, including the assignment of tasks leading to further improvement. Consultations always take place before the beginning of each semester in order to check the content, methodology and personnel readiness for instruction.

Further evaluation is carried out using observations, targeted pedagogic meetings and the exchange of experience among academics. The aim is to ensure the prescribed content of subjects, the methodical management of instruction and teacher performance. That is why BUT holds regular workshops and Days of Quality in order to streamline cooperation between the Rector's Office and the individual BUT parts to exchange and disseminate new knowledge and experience.

As a result of the preparation and implementation of the amendment to the Higher Education Act, there are very significant and serious changes in the field of education that were begun at BUT in a timely manner, are being consistently implemented and will last for a longer period of time, all with the utmost effort of university management, its organs and members of old and newly established committees and procedures.

The most important changes include the division and orientation of education into newly established and defined areas, the possibility of obtaining institutional accreditation and its implications for internal accreditation, the staffing of study programs and the requirement for increased influence of external subjects in education. BUT is systematically preparing all these measures.

Quality management of education is based on valid and complete BUT internal regulations, recommendations on ESG/2015, or the results of domestic and international projects in the field of education quality. As a result of the

amendment to the Higher Education Act, revisions and modifications were launched in 2016, or a completely new version of the internal regulations was prepared for the areas of education and student affairs that are directly concerned: the Statute, the Internal Evaluation Council's Rules of Procedure, Rules of Study Programs, Study and Examination Rules, Scholarship Rules, Disciplinary Regulations and other internal standards and BUT guidelines. These documents are now at a different stage of elaboration, approval and registration, but their completion is expected to meet the statutory deadline.

ESG/2015 makes cooperation with secondary schools more intensive, which leads to the improvement of knowledge of BUT applicants. Furthermore, the internal regulations in the area of education, including a quality manual, were processed and published. A detailed manual of specializations for the DS Label and ECST Label was created. The implementation of the ESG/2015 recommendations led to the design and creation of new degree programs. Instruction in a foreign language and organizing Double Degree and Joint Degree studies are strongly supported.

Some faculties have begun to implement education based on learning outcomes, including requirements on teaching style (e.g. enhanced individual approach to students, increased involvement of students in instruction, support of learning independence and initiative). In an organized and systematic way, BUT is transfering its expertise to promote these new educational approaches. Interdisciplinary education, academic staff and student mobility are monitored and evaluated. Significant attention is paid to the needs of students, not only in the area of teaching, but also in the areas of counseling and the promotion of sports and health.

BUT employees understand that questioning and interviewing students serve well to obtain the knowledge, ideas and demands of students needed to improve the educational process. This, however, is contingent on there being appropriate and mutually open communication between the teacher and student, as well as trust and respect. That is how BUT strives to cultivate such relationships.

Student evaluation has long been an integral part of the assessment of the quality of education at BUT and is organized regularly at the end of semester. This assessment is carried out by the faculties autonomously once or twice a year by means of electronic or paper questionnaires, which focus on the content of the subjects, the method and organization of teaching, and the competence and approach of the teacher. The DQ continues to integrate student assessment into the scope of BUT and is preparing a uniform way of using its results. The results of student assessments are processed by the information system into a clear report, which is archived. Management of the departments can reflect on these results as a partial source of information for the complete evaluation of their academic staff. The survey also serves as a process by students of choosing the top 10 teachers of BUT (according to individual faculty).

The activity of the Department of Quality is also associated with the fight against plagiarism. However, plagiarism does not seem to be a major BUT issue. The topics of the diploma and doctoral theses are formulated in a way that requires the individual activity of a student; not only the acquired/studied knowledge but also the professional skills and practical activities. Moreover, everything is systematically monitored and controlled by supervisors and opponents (second readers) of the theses, as well as the relevant commissions. Nevertheless, the DQ generally attends to plagiarism by preferring the ex-ante method, which means informing and educating students and academic staff about following the requirements of general and professional ethics.

The last external evaluation of the EUA/IMP was performed in 2013, with this evaluation being carried out every four years. The evaluation concluded that 2016 be canceled, i.e. transferred to 2017, due to the ongoing implementation of the amendment to the Higher Education Act as well the continuous organizational, legislative and working environment changes accurring at universities, including BUT.

BUT regularly conducts surveys among graduates on the short- and long-term benefits of their studies. Another form of feedback is gained from systematic cooperation with the employers of graduates. The results of internal and external evaluations are used to increase the quality of the educational process, to upgrade and modernize the content of subjects, to modify the methodological guidance of instruction and to increase the pedagogical competences of BUT employees.

A certain form of external evaluation is represented by BUT activities in the areas of national and international benchmarking and ranking. In this matter, a number of meetings was organized at executive and management levels, not only at BUT, but also at the inter-university level.

These activities resulted in the joint negotiation of the managements of BUT, UWB Plzeň, TU Liberec and other universities (Technical University of Ostrava, Palacky University Olomouc, University of Pardubice) regarding the possible joint approach of university quality management sub-areas. Specific steps have been and will be taken at BUT and other schools as part of building quality assurance and evaluation systems.

10.1 Significant events related to quality assurance and evaluation of implemented activities in 2016

In the external quality evaluation, BUT cooperated with U-Multirank. The 2017 U-Multirank survey was aimed both at BUT as a whole and six BUT faculties (FAST, FCH, FEEC, FIT, FBM and FMI) and was organized in several stages. From June to August 2016, the first data were collected and sent to U-Multirank headquarters. At the end of September, BUT received comments and inquiries about the collected data. These were explained, refined and completed by the end of October. Since then, U-Multirank's external data have been processed and the results will be delivered in the first quarter of 2017. At the same time, the experience of the BUT Rector's Office and faculties was registered and processed and will be forwarded to the BUT management for discussion and recommendations for the possible modification of the data collected and stored on a continuous basis at BUT. From September 2016 to January 2017, U-Multirank will be processing the questionnaires of the BUT student feedback evaluation (their distribution to the students and their collection was carried out by the U-Multirank team separately, only with the necessary BUT administrative support). The results of the evaluation should be known in the first quarter of 2017.

In 2016, the first successful surveillance audit of the quality management system, according to international standard ISO 9001: 2009 Quality Management Systems – Requirements, was successfully carried out at BUT. The second surveillance audit, in accordance with the new version of the standard ISO 9001: 2016, was successfully carried out at the Faculty of Business and Management. The second surveillance audit within the first cycle was conducted, according to standard 2009, at the Faculty of Mechanical Engineering. The processes of the Faculty of Electrical Engineering and Communication have newly been added to the certified organizational parts of BUT and were certified according to the standard in version 2009.

Reports from these external audits contained no disagreements or comments, only recommendations for the further improvement of operations. The reports include the strengths of the organizational parts. In 2016, preparatory activities were begun to ensure the compliance of the faculty management system with this international standard.

The Rector's Office and other BUT constituent parts:
The first surveillance audit by an independent and accredited certification body was carried out in this part. The audit did not find any systemic disagreement or provide any comments. It only emphasized the strong points and recommended improving the quality of the management system. The audit was carried out on 22 and 23 November 2016. Assignment for the software optimization of BUT process management was implemented, including linking up with the existing IS.

Process analyzes were carried out to improve the level of methodological and service support of BUT activities. Internal discussions on the quality of the management system lead to the implementation of a review of the process of the internal quality management system.

The internal audits of the quality of the management system evaluated whether the established approach, main documentation and supporting records continued to meet the needs of BUT.

Faculty of Business and Management: In 2016, the second re-certification audit, in accordance with the new version of the standard ISO 9001: 2016, was conducted by an independent and accredited certification body at the Faculty of Business and Management. The audit did not find any systemic disagreement or provide any comments; the audit emphasized the strong points and recommended improving the quality of the management system. This second surveillance audit was carried out on 1 and 2 November 2016.

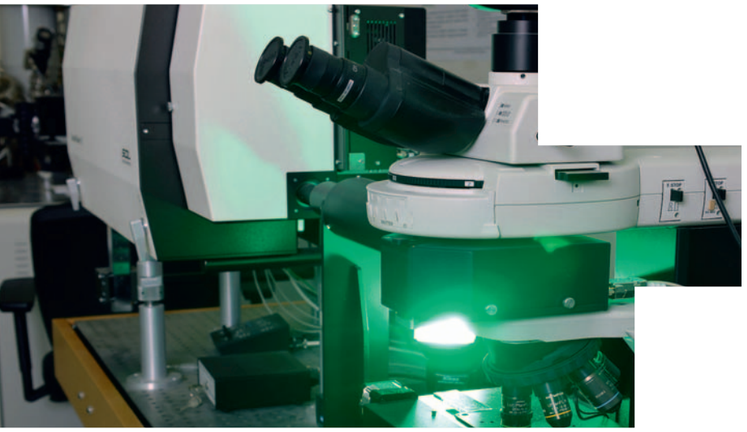
An updated quality manual was issued to implement the changes in the faculty management system. The strategic processes of the faculty were supported in relation to risk management and the process of internal audits of management system quality was modified.

Faculty of Mechanical Engineering: In 2016, the second surveillance audit was conducted by an independent and accredited certification body at the Faculty of Mechanical Engineering. The audit did not find any systemic disagreement or provide any comments; the audit emphasized the strong points and recommended improving the quality of the management system. The first surveillance audit was carried out on 6 and 7 December 2015.

Faculty of Electrical Engineering and Communication:
The first certification audit was conducted by an independent and accredited certification body at FEEC. The audit did not find any systemic disagreement or provide any comments; it only emphasized the strong points and recommended improving the quality of the management system. The audit was carried out on 20 and 21 October 2016.

The following activities played a key role: a quality manual was issued, the processes were mapped and analyzed, the management documentation and activities related to the BUT information system were reviewed and internal discussions on the quality of the management system were started.

11



BUT NATIONAL AND INTERNATIONAL EXCELLENCE

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

In 2016, BUT participated in 90 project consortia submitting proposals for new projects to Horizon 2020 – the 8th Framework Program for Research and Innovation, the largest and most important program for European science, research and innovations in 2014–2020. In 2016, BUT received a promise to have 12 projects financed and 14 H2020 projects were carried out. The successful applicants are specialists who registered in the ICT programs, Marie Sklodowska-Curie programs (which promote researcher mobility), the ECSEL Joint Technology Initiative programs, as well as the RFCS program – the Coal Steel Research Fund and others.

BUT is a member of many important institutions, scientific and artistic networks, organizations and associations. Below are some selected international organizations in which BUT participates:

Academy of International Business, Academy of Materials and Manufacturing Engineering, Advisory Group for Aeronautics in FP6 (Brussels), Association of European Schools of Planning, Air Infiltration and Ventilation Center, American Ceramic Society, American Vacuum Society, American Society for Materials, Berkeley Initiative in Soft Computing, Conference of European Schools of Advanced Engineering Education and Research, Center of Excellence Women and Science, International Council for Building, Cisco Networking Academy, Danube Rectors Conference, International Documentation and Conservation Modern Movement, European Association for Architectural Education, European Council for Small Business, European Institute for Advanced Studies in Management, The European Business Academy, Electrochemical Society, European League of Institutes of the Arts, European Platform of Women Scientists, European Quality Association for Recycling, European Society for Engineering and Medicine, European Universities Public Relations and Information Officers, European Association for Accident Research and Analysis, European Association of Language Testing and Assessment, European Biometrics Forum, European Society for Artificial Organs, European Structural Integrity Society, European University Association, Federation for Structural Concrete, Global Business and Technology Association, Gesellschaft für Informatik, Heat Transfer Education Committee, International Association for Bridge and Structural Engineering, International Association for Shell and Spatial Structures, International Council of Aeronautical Science, International Energy Agency, Institute of Electrical and Electronics Engineers, International Federation for the Promotion of Mechanism and Machine Science, International Institute of Forecasters, International Project Management Association, International Union of Vacuum Sciences, Technologies and Applications, Federation of European Heating and Air-Conditioning Association, Society for Intercultural Training, Education and Research, Society of Computational Economics, Society for Material Research, The International Society of Difference Equations, Transformation in Business and Economics, International Wissenschaftlich-Technische Arbeitsgemeinschaft für Bauwerkserhaltung und Deenkmalpflege and many others.

BUT employees are also actively involved in a wide range of professional associations, organizations and societies, such as the following:

Association of University Libraries Czech Republic, Association of Designers of Moravia in the Czech Union of Artists, Association of Mechanical Engineers, Association of Experts and Appraisers of the CR, Centre for Research on Information Systems (CSSI), 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 Logistics Association, Czech Marketing Association, Czech Foundry Society, Czech Chemical Society, Czech Society for Quality, Czech Society for Cybernetics and Informatics, Czech Society for Mechanics, Czech Society for Nondestructive Testing, Czech Welding Society, Czech Vacuum Society, Czech Society for New Materials and Technologies, Czech-Moravian Electrical and Electronic Association, Czech National Committee for Hydrology, Czech Standards Institute, Czech Association of Civil Engineers, Czech Association of Scientific and Technical Societies,

European Biometrics Forum, Institute of Electrical and Electronics Engineers, International Society for Optics and Photonics, International Society of Electrochemistry, International Solar Energy Society, International Union of Radio Science, International Union of Testing and Research Laboratories for Materials and Structures, Union of Czech Mathematicians and Physicists, Moravian Association of Women Entrepreneurs, National Association of Experts and Institutions Involved in the Transfer of Knowledge and Technology, Association for Railways, Association for Concrete Structures, Association of Accountants and Tax Advisors, Society for Ethics in Economics, Association for Project Management, The Society of Radio-electronic Engineering, Society for Environmental Technology, Association of Czech Booksellers and Publishers, Technical Committee of the International Standardization Organization, Technological Platform Energy Security, European Confederation of Language Centers in Higher Education.

11.2 National and international awards

In 2016, the British Quacquarelli Symonds (QS) published its QS Top Universities, in which BUT reached the highest category of research (Very High Research). In the regional ranking, which includes Central Asian states and European countries outside of Western Europe, BUT occupies 19th place. In this ranking, QS compares universities from 24 states, including the Czech Republic, Slovakia, Poland, Russia, Hungary and the Baltic states.

BUT as a whole occupied places between 651st and 700th. The best scores were obtained in the field of Engineering & Technology (262nd place) and in the category of Structural and Civil Engineering (between 151st and 200th place).

The Faculty of Mechanical Engineering gained 1st place in the nationwide ranking School of the Year Recommended by Employers. The competition is organized by the Czech Employers Club and the leading employers evaluate the faculties of universities according to the quality of their graduates. In 2016, the Faculty of Mechanical Engineering improved its success from the two previous years, when it gained 2nd place.

Further awards are listed in the introductory part of the Annual Report in the section Activities under Significant Events at BUT in 2016.

11.3 International assessment of BUT and its constituent parts, including foreign accreditation

In 2009, BUT received the prestigious certificates of the European Commission – the ECTS Label and DS Label. The validity of these certificates was subsequently extended for the period 2013–2016. The ECTS Label contributes to the internationalization of the university and ranks among the most prestigious European awards in the field of tertiary education.

12

THIRD ROLE OF THE UNIVERSITY

12.1 Transfer of knowledge into the application sphere

BUT has been trying for a long time to access the unified protection of intellectual property, giving priority to licensing. Co-ownership of the results with a third party is addressed individually on the basis of contracts. Contractual arrangement focuses mainly on property rights, sharing the costs of legal protection and the distribution of revenues from the exploitation of results. The university protects its produced results on the basis of an internal assessment of commercial potential. Protection abroad is exerted mostly by the European Patent Office or the mechanisms of the Patent Cooperation Treaty. The protected results are published in the international database EEN (European Enterprise Network), or via www.spolupracesvut.cz. CTT elaborates methodology and trains staff how to apply the outputs of creative activities correctly, or how to establish spin-off companies. Further information is available in the table supplement of the Annual Report (Table 8.4).

CEITEC BUT offers innovation potential evidenced by technologies and outputs of research and development; they have their historical origin at the BUT and its faculties and are now being further developed at the Central European Institute of Technology (CEITEC).

One example is LiteScope from NenoVision, the first CEITEC BUT spin-off. This young company offers equipment for electron microscopy. In 2016, this small metal box received a gold medal at the International Engineering Fair. LiteScope makes it possible to not only display the sample surface in 3D, but it also measures the magnetic and electrical properties of the sample using atomic force microscopy. LiteScope is used in the field of material science research, solar cells, chips, microcircuits and semiconductors.

Another example of successful technology coming from CEITEC BUT is SciTrace from AtomTrace. The SciTrace laboratory device enables elemental analysis of materials using a laser beam. Using a laser facilitates the advanced analysis of solid, liquid and gaseous substances even at longer distances. It is not necessary to manipulate or prepare the sample, as focusing the laser beam is sufficient. Developed in cooperation with CEITEC BUT, Tescan and the young start-up AtomTrace, the device won 1st place in the 2016 Co-operation competition organized by the AFI (Association for Foreign Investments).

In 2016, the researchers of the Faculty of Civil Engineering developed a special plaster that does not become chapped and is suitable for repairing monuments. Furthermore, the plaster mixture is very similar to the substrate and does not crack on it. This technical procedure is protected by copyright under the utility model called Dry lime, or lime-cement plaster mixture.

Another example of successful collaboration is a utility model based on a new way of water filtration using root cleaners, which can remove even ammonia and compete well with other technologies. The project, involving forced aeration of the vertical filter for wastewater treatment, was elaborated by scientists from the Institute of Landscape Water Management.

Scientists from the Faculty of Chemistry were not lagging behind in 2016, as they developed a new hydrogel preparation process that includes nanocontainers capable of carrying different types of drug substances. The innovative process enables sterile preparation and up to 100% incorporation of active substances.

The staff of the faculty's Material Research Center focused on improving the properties of hyaluronic acid hydrogels for wound healing. This substance, created by the body itself, does not only form the hydrogel itself, but its presence contributes positively to faster and more comfortable wound healing, is an effective antioxidant and helps to moisturize problematic skin. Under sterile conditions, hydrogel can now be prepared almost anywhere, e.g. at the clinic or even at home.

In 2016, scientists from the Faculty of Mechanical Engineering succeeded in introducing a new industrial burner for the combustion of waste materials, including gases and liquids. The Institute of Process Engineering has put four types of burners into operation. The researchers are also working intensively on developing new tools for milling and drilling that can handle even the toughest materials.

12.2 Working in the region, working with regional governments and major institutions

BUT is represented in the Regional Innovation Strategy (RIS) Steering Committee, which is also a working group for the RIS Regional Permanent Conference for the South Moravian Region. The Regional Innovation Strategy of the South Moravian Region 2014–2020 (RIS JMK) is a key strategic document of the South Moravian Region and the Statutory City of Brno for the implementation of a policy to support competitiveness, based in particular on innovations and maximizing the economic benefits of public investments in research and education.

BUT focuses its cooperation on strengthening the interdisciplinary cooperation of scientific teams and international cooperation, in areas that are defined by RIS as top-level. It is important for BUT to develop cooperation in the field of material research and cooperation with companies focusing on electron microscopy, digitization and robotics, ICT technology, advanced building materials and structures, optoelectronics, advanced engineering and modern chemistry.

The Faculty of Civil Engineering (FCE), as well as other workplaces of the university, is one of the specialized departments, so it can issue expert opinions, for example, in the field of geodesy, construction and property valuation. Experts from FCE have assessed the risk of the ground water at Holešovice in Zlín; after landslides in Břeclav and in the South Moravian Region, they have developed a number of opinions necessary in various claims.

Experts from the Faculty of Architecture (FA) assessed the construction of a new airport terminal in Pardubice. The students of FA often propose plans for both municipalities and urban areas, or participate in the development of public spaces. In the past, they have also cooperated with the city districts of Brno-Center, Komín, Líšeň and Tuřany. Cooperation was also requested by the town of Dolní Kounice and the Brno Fairs and Exhibiton Center.

BUT cooperates closely with the Regional Chamber of Commerce and the CzechInvest branch in Brno.

BUT Students and staff are also very socially responsible. In April 2016, BUT students interested in ecology organized a clean-up event called "Waste picking" and, along with other students from the Czech Republic, joined the event "Let's Clean Up the Czech Republic", whereby they collected garbage in the locality Pod Palackého vrchem and around Purkyně dormitory. The humanity and responsibility of BUT students is evidenced by the traditional Drop of Blood event, where a group of more than twenty volunteers enters the Blood Donor Register. In April 2016, students across the faculties donated blood at the Transfusion Station of the University Hospital Brno.

In December 2016, the students and employees of the Faculty of Business and Management (FBM) organized a very popular meeting at a Christmas tree with a charity dimension: students and staff made donations to children from foster families. Pavel Šmýd, the Chairman of the Association of Foster Families, is a FBM graduate. The invited children, among others, wrote to baby Jesus; their families received financial assistance through a financial collection organized with the help of the Student Chamber of the Academic Senate of FBM.

BUT cooperates with a number of important regional institutions, including Brno Observatory and Planetarium, the VIDA Science Center and Brno Technical Museum.

12.3 Characteristics of BUT activities beyond the region

Aspiring to excellence, BUT achieves world-class levels in creativity and innovation. The support of research activities in the past has been accentuated as a key activity that significantly supports the importance of the university beyond its region.

Activities of BUT beyond the region are represented by the creative activities oriented on Central European cooperation in the international projects of the H2020. In 2016, BUT addressed 14 projects like these to a value exceeding 2.5 million Euros. Another area of interregional cooperation involves research projects of cross-border cooperation, which is mainly focused on cooperation with the Technical University of Vienna. BUT succeeded mainly in basic research supported by the Austrian party.

One of the objectives in the last period was to create prestigious research positions by actively attracting researchers from abroad, thanks to the state-of-the-art technology and instrumentation of two excellent research centers, the expansion of the doctoral Joint Degree Programs, and advertising scientific positions on global foreign websites.

Further development is supported by the patented results of applied research in the EU, USA, Japan and other countries. Outside the region, BUT also collaborates with many renowned commercial companies (Škoda Auto, Honeywell, Bosch Diesel, FEI, IBM, Microsoft, Siemens, Tescan, FEI, Microsoft, Bosch Diesel Jihlava, Volkswagen Group, Evektor, AŽD Prague, etc.).

TABLES
OF THE BUT
ANNUAL ACTIVITY
REPORT

2016

Tab. 2.1: Accredited degree programs (numbers)

BUT	CREF	Bachelor's Study		Master's Study		Continuing Master's Study		Doctoral Study		Total
		F	C/D	F	C/D	F	C/D	F	C/D	
Faculty of Civil Engineering										
Technical sciences and disciplines	21–39	4	2	0	0	3	1	2	2	**14**
Faculty of Mechanical Engineering										
Technical sciences and disciplines	21–39	2	1	0	0	4	1	5	5	**18**
Faculty of Electrical Engineering and Communication										
Technical sciences and disciplines	21–39	5	2	0	0	3	1	2	2	**15**
Faculty of Architecture										
Technical sciences and disciplines	21–39	1	0	0	0	1	0	1	1	**4**
Faculty of Chemistry										
Technical sciences and disciplines	21–39	2	2	0	0	5	4	3	3	**19**
Sciences and disciplines	11–18	0	0	0	0	0	0	2	2	**4**
Faculty total		**2**	**2**	**0**	**0**	**5**	**4**	**5**	**5**	**23**
Faculty of Business and Management										
Economics	62,65	3	1	0	0	2	1	1	1	**9**
Faculty of Fine Arts										
Disciplines on culture and arts	81,82	1	0	0	0	1	0	1	1	**4**
Faculty of Information Technology										
Technical sciences and disciplines	21–39	1	0	0	0	1	0	1	1	**4**
Institute of Forensic Engineering of BUT										
Technical sciences and disciplines	21–39	0	0	0	0	2	0	1	1	**4**
Central European Institute of Technology of BUT										
Technical sciences and disciplines	21–39	0	0	0	0	0	0	1	1	**2**
Total		**19**	**8**	**0**	**0**	**22**	**8**	**20**	**20**	**97**

Legend: F = full-time; C/D = combined/distant, CREF = "Classification of root educational fields" for each group of accredited programs.

Tab. 2.2: Degree programs in a foreign language (numbers)

BUT	CREF	Bachelor's Study		Master's Study		Continuing Master's Study		Doctoral Study		Total
		F	C/D	F	C/D	F	C/D	F	C/D	
Faculty of Civil Engineering										
Technical sciences and disciplines	21–39	2	0	0	0	2	0	1	1	**6**
Faculty of Mechanical Engineering										
Technical sciences and disciplines	21–39	2	0	0	0	3	0	4	2	**11**
Faculty of Electrical Engineering and Communication										
Technical sciences and disciplines	21–39	1	0	0	0	2	0	1	1	**5**
Faculty of Architecture										
Technical sciences and disciplines	21–39	0	0	0	0	1	0	0	0	**1**
Faculty of Chemistry										
Technical sciences and disciplines	21–39	0	0	0	0	0	0	2	2	**4**
Sciences and disciplines	11–18	0	0	0	0	0	0	2	2	**4**
Faculty total		**0**	**0**	**0**	**0**	**0**	**0**	**4**	**4**	**8**
Faculty of Business and Management										
Economics	62,65	0	0	0	0	1	0	1	1	**3**
Faculty of Fine Arts										
Disciplines on culture and arts	81,82	0	0	0	0	0	0	0	0	**0**
Faculty of Information Technology										
Technical sciences and disciplines	21–39	0	0	0	0	0	0	1	1	**2**
Institute of Forensic Engineering of BUT										
Technical sciences and disciplines	21–39	0	0	0	0	0	0	0	0	**0**
Central European Institute of Technology of BUT										
Technical sciences and disciplines	21–39	0	0	0	0	0	0	1	0	**1**
Total		**5**	**0**	**0**	**0**	**9**	**0**	**13**	**10**	**37**

Tab. 2.3: Joint/Double/Multiple Degree programs implemented with foreign universities

BUT	Faculty of Mechanical Engineering
Name of program	**Manufacturing technology**
Partner organization	Technische Universität Chemnitz (Chemnitz, Germany)
Affiliated organization	
Start of program implementation	
Kind of program	Double Degree
Length of study	6 semesters
Type of program	Bachelor's
Description of organization of studies, including the admission and completion of the study	2 academic years of study in Czech and 1 academic year of study in German
How are diploma and diploma supplement issued?	The graduates are awarded the title of Czech and foreign university after completion of the bachelor's degree. Diploma and Diploma Supplement are presented at the graduation ceremony or in person.
How are student exchanges implemented?	The student exchange is implemented within Erasmus+ for 1 academic year.
Number of active studies on 31 December 2016	4
Name of program	**Industrial Engineering**
Partner organization	Art et Métiers ParisTech (Cluny, France)
Affiliated organization	
Start of program implementation	
Kind of program	Double Degree
Length of study	4 semesters
Type of program	Continuing Master's
Description of organization of studies, including the admission and completion of the study	1 academic year of study in Czech and 1 academic year in French language; the prerequisite of the admission to the specialization Industrial Engineering is completion of the final year of bachelor's study at a French university.
How are diploma and diploma supplement issued?	The graduates are awarded the title of Czech and foreign university after completion of the bachelor's degree. Diploma and Diploma Supplement are passed on at the graduation ceremony or in person.
How are student exchanges implemented?	The student exchange is implemented within Erasmus+ for 1 academic year.
Number of active studies on 31 December 2016	2
Name of program	**Production systems**
Partner organization	Technische Universität Chemnitz (Chemnitz, Germany)
Affiliated organization	
Start of program implementation	
Kind of program	Double Degree
Length of study	4 semesters
Type of program	Continuing Master's
Description of organization of studies, including the admission and completion of the study	1 academic year of study in Czech and 1 academic year in German
How are diploma and diploma supplement issued?	The graduates are awarded the title of Czech and a foreign university after completion of the bachelor's degree. Diploma and Diploma Supplement are passed on at the graduation ceremony or in person.
How are student exchanges implemented?	The student exchange is implemented within Erasmus+ for 1 academic year.
Number of active studies on 31 December 2016	9

BUT	Faculty of Electrical Engineering and Communication
Name of program	**Telecommunications**
Partner organization	TU Wien
Affiliated organization	
Start of program implementation	2016/2017
Kind of program	Joint Degree
Length of study	4 semesters
Type of program	Continuing Master's
Description of organization of studies, including the admission and completion of the study	Agreement on a Joint Master's Degree Program in Telecommunications
How are diploma and diploma supplement issued?	Issuing standard diploma at both universities.
How are student exchanges implemented?	Agreement on a Joint Master's Degree Program in Telecommunications
Number of active studies on 31 December 2016	0
Name of program	**Electrical engineering and communication technologies**
Partner organization	Tampere University of Technology (hereafter TUT), Finland
Affiliated organization	
Start of program implementation	2016/2017
Kind of program	Double Degree
Length of study	8 semesters
Type of program	Ph.D. degree program
Description of organization of studies, including the admission and completion of the study	Students are admitted on the basis of a successfully passed entrance exam at the home university. The standard length of study is 4 years. From this time, they complete one more year at a partner university. At both universities, they have to fulfill the study obligations imposed by the study code and the individual study plan. The study ends with the defense of doctoral dissertation at the home university.
How are diploma and diploma supplement issued?	The diploma is issued by both universities (TUT Finland, BUT); the diploma states that the study was conducted in the Double Degree program.
How are student exchanges implemented?	Students come to a partner university with the agreement of the instructors.
Number of active studies on 31 December 2016	2

BUT	Faculty of Business and Management
Name of program	**Economics and Management – European Business and Finance**
Partner organization	Nottingham Trent University (GB), Karol Adamiecky University of Economics in Katovice (PL)
Affiliated organization	
Start of program implementation	From academic year 2008/2009
Kind of program	Joint Degree
Length of study	4 semesters
Type of program	Continuing Master's
Description of organization of studies, including the admission and completion of the study	The prerequisite of the admission to the specialization is successful completion of Bachelor's study in a related field. The dean decides on admission on the basis of the motivation letter, a CV and proof of the English examination (all in English). The course of study: first, second and fourth semesters at FBM, third semester at Nottingham Trent University (GB).

How are diploma and diploma supplement issued?	After passing the final examination at FBM BUT, the successful graduates will receive a diploma with the title Master of Science (MSc) signed by Nottingham Trent University and a diploma with the title of engineer (MSc).
How are student exchanges implemented?	In the third semester, the students complete a mandatory internship at Nottingham Trent University in the UK.
Number of active studies on 31 December 2016	39

BUT	Central European Institute of Technology of BUT
Name of program	**Advanced materials and nano-sciences**
Partner organization	Novosibirsk State Technical University
Affiliated organization	none
Start of program implementation	25 October 2015
Kind of program	Double Degree
Length of study	8 semesters
Type of program	Doctoral
Description of organization of studies, including the admission and completion of the study	e-registration, admission, enrolment , Ph.D. evaluation 8 semesters of study, SDZ
How are diploma and diploma supplement issued?	Issuing standard diploma
How are student exchanges implemented?	There are no exchanges; a particular student is 8 months in Brno and 4 months in Russia
Number of active studies on 31 December 2016	1

Name of program	**Advanced materials and nanosciencies**
Partner organization	University of Jyväskylä
Affiliated organization	none
Start of program implementation	1 September 2014
Kind of program	Double Degree
Length of study	8 semesters
Type of program	Doctoral
Description of organization of studies, including the admission and completion of the study	e-registration, admission, enrolment, Ph.D. evaluation 8 semesters of study, Ph.D. exam
How are diploma and diploma supplement issued?	Issuing standard diploma
How are student exchanges implemented?	There are no exchanges; a particular student is 6 months in Brno and 6 months in Finland.
Number of active studies on 31 December 2016	0 – the contract expired on 31 August 2016; the student completed his studies

Summary information on table 2.3

BUT	Bachelor's Study	Master's Study	Continuing Master's Study	Doctoral Study
Number of study programs	1		4	3
Number of students in these programs	4		50	3

Tab. 2.4: Accredited degree programs implemented jointly with another university or institution located in CR

BUT	Faculty of Electrical Engineering and Communication
Name of study program 1	**Biomedical Technology and Bioinformatics**
Group CREF	B3930
Partner university	Faculty of Medicine, Masaryk University (FM MU)
Start of program implementation	2007/2008
Length of study	6 semesters
Type of program	Bachelor's
Description of organization of studies, including the admission and completion of the study	3-year B.Sc. study at MU implemented at FEEC of BUT and the FM MU with the use of the specialized departments of the University Hospital Brno. The condition for admitting is completion of high or secondary vocational education and meeting the conditions in the Regulations of Admission in the degree program BTBIO-A. The mode of completion – defense of the thesis, final state examination.
Number of active studies on 31 December 2016	204

Name of study program 2	**Biomedical Engineering and Bioinformatics**
Group CREF	N3952
Partner university	Faculty of Medicine, Masaryk University (FM MU)
Start of program implementation	2010/2011
Length of study	4 semesters
Type of program	Continuing Master's
Description of organization of studies, including the admission and completion of the study	2-year full time MA study at MU implemented at FEEC of BUT and the FM MU with the use of the specialized departments of the University Hospital Brno. The condition for admitting is completion of high or secondary vocational education and meeting the conditions in the Regulations of Admission in the degree program BTBIO-A. The mode of completion – defense of the thesis, final state examination.
Number of active studies on 31 December 2016	76

Name of study program 3	**Audio engineering**
Group CREF	B3961
Partnerská vysoká škola	Music Faculty of Janáček Academy of Performing Arts in Brno (MF JAMU)
Start of program implementation	2013/2014
Length of study	6 semesters
Type of program	Bachelor's
Description of organization of studies, including the admission and completion of the study	3-year bachelor's study at FEEC of BUT and (MF JAMU). The prerequisite for admitting is completion of high or secondary vocational education and meeting conditions specified in the Regulations for Admission in the degree program AUDIO-J. The mode of completion – defense of the bachelors thesis, final state examination.
Number of active studies on 31 December 2016	131

Name of study program 4	**Information security**
Group CREF	B3966
Partnerská vysoká škola	Faculty of Law, Masaryk University (FL MU)
Start of program implementation	2015/2016
Length of study	6 semesters
Type of program	Bachelor's
Description of organization of studies, including the admission and completion of the study	3-year bachelor's study at FEEC of BUT and (FL MU). The prerequisite for admitting is completion of high or secondary vocational education and meeting conditions specified in the Regulations for Admission in the degree program IBEP-T. The mode of completion – defense of the bachelor's thesis, final state examination.
Number of active studies on 31 December 2016	121

BUT	Central European Institute of Technology of BUT
Name of program	**Advanced materials and nano-sciences**
Group CREF	Technical sciences and disciplines 21–39
Partner university	Masaryk University
Start of program implementation	1 September 2013
Length of study	8 semesters
Type of program	Doctoral
Description of organization of studies, including the admission and completion of the study	e-registration, admission, enrolment , Ph.D. evaluation 8 semesters of study, final doctoral exam
Number of active studies on 31 December 2016	62

Summary information on table 2.4

BUT	Bachelor's Study	Master's Study	Continuing Master's Study	Doctoral Study
Number of degree programs	3		1	1
Number of students in these programs	456		76	62

Tab. 2.5: Accredited degree programs implemented jointly with community colleges

BUT	There are no such degree programs at BUT

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

BUT	CREF	Professional-oriented courses			Interest courses			U3A	Total
Groups of accredited degree programs		to 15 hours	from 16 to 100 hours	more than 100 hours	to 15 hours	from 16 to 100	more than 100 hours		
Natural sciences	11–18							1	**1**
Technical sciences	21–39	1	13					53	**67**
Agricultural-forestry and vet. sciences	41,43								**0**
Medical, doctor and pharm. sciences	51–53							4	**4**
Social sciences and services	61,67,71–73			44				9	**53**
Economics	62,65							2	**2**
Law, legal and public law activities	68								**0**
Pedagogy, teaching and social care	74,75			1					**1**
Courses in the field of psychology	77								**0**
Disciplines on culture and arts	81,82							8	**8**
Total		**1**	**13**	**45**	**0**	**0**	**0**	**77**	**136**

Remark: U3A = University of the Third Age

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

BUT	CREF	Professional-oriented courses			Interest courses			U3A	Total	Thereof the number of participants was admitted to accredited study programs under Section 60 of the Higher Education Act
Groups of accredited degree programs		to 15 hours	from 16 to 100 hours	more than 100 hours	to 15 hours	from 16 to 100 hours	more than 100 hours			
Natural sciences	11–18							24	24	
Technical sciences	21–39	4	99					900	1 003	
Agricultural-forestry and vet. sciences	41,43								0	
Medical, doctor and pharm. sciences	51–53							185	185	
Social sciences and services	61,67,71–73							767	767	
Economics	62,65							17	17	
Law, legal and public law activities	68								0	
Pedagogy, teaching and social care	74,75			15					15	
Courses in the field of psychology	77								0	
Disciplines on culture and arts	81,82							921	921	
Total		**4**	**99**	**15**	**0**	**0**	**0**	**2 814**	**2 932**	**0**

Tab. 3.1: Students in accredited degree programs (numbers)

BUT	CREF	Bachelor's Study		Master's Study		Continuing Master's Study		Doctoral Study		Total
		F	C/D	F	C/D	F	C/D	F	C/D	
Faculty of Civil Engineering										
Technical sciences and disciplines	21–39	2 901	239	0	0	1 425	118	168	211	**5 062**
Thereof number of women		1 010	76	0	0	503	27	52	71	**1 739**
Thereof number of foreigners		485	20	0	0	188	10	19	16	**738**
Faculty of Mechanical Engineering										
Technical sciences and disciplines	21–39	2 718	169	0	0	1 180	113	175	175	**4 530**
Thereof number of women		368	25	0	0	132	9	24	27	**585**
Thereof number of foreigners		514	13	0	0	233	7	27	23	**817**
Faculty of Electrical Engineering and Communication										
Technical sciences and disciplines	21–39	1 901	185	0	0	881	183	189	192	**3 531**
Thereof number of women		251	20	0	0	105	9	25	27	**437**
Thereof number of foreigners		561	29	0	0	200	30	31	29	**880**
Faculty of Architecture										
Technical sciences and disciplines	21–39	358	0	0	0	189	0	32	15	**594**
Thereof number of women		237	0	0	0	102	0	19	4	**362**
Thereof number of foreigners		107	0	0	0	55	0	4	1	**167**

BUT	CREF	Bachelor's Study		Master's Study		Continuing Master's Study		Doctoral Study		Total
		F	C/D	F	C/D	F	C/D	F	C/D	
Faculty of Chemistry										
Technical sciences and disciplines	21–39	654	55	0	0	299	37	69	43	**1 157**
Sciences and disciplines	11–18	0	0	0	0	0	0	25	24	**49**
Faculty total		**654**	**55**	**0**	**0**	**299**	**37**	**94**	**67**	**1 206**
Thereof number of women		418	32	0	0	213	25	49	43	**780**
Thereof number of foreigners		192	9	0	0	74	5	19	1	**300**
Faculty of Business and Management										
Economics	62,65	1 705	8	0	0	830	423	37	27	**3 030**
Thereof number of women		809	3	0	0	414	239	19	14	**1 498**
Thereof number of foreigners		294	0	0	0	160	40	12	6	**512**
Faculty of Fine Arts										
Disciplines on culture and arts	81,82	170	0	0	0	88	0	17	10	**285**
Thereof number of women		98	0	0	0	52	0	12	8	**170**
Thereof number of foreigners		37	0	0	0	21	0	5	1	**64**
Faculty of Information Technology										
Technical sciences and disciplines	21–39	1 649	0	0	0	577	0	132	81	**2 439**
Thereof number of women		145	0	0	0	44	0	20	4	**213**
Thereof number of foreigners		661	0	0	0	196	0	36	12	**905**
Institute of Forensic Engineering of BUT										
Technical sciences and disciplines	21–39	0	0	0	0	401	0	15	73	**489**
Thereof number of women		0	0	0	0	166	0	8	29	**203**
Thereof number of foreigners		0	0	0	0	36	0	1	8	**45**
Central European Institute of Technology of BUT										
Technical sciences and disciplines	21–39	0	0	0	0	0	0	64	5	**69**
Thereof number of women		0	0	0	0	0	0	20	2	**22**
Thereof number of foreigners		0	0	0	0	0	0	28	0	**28**
Total		**12 056**	**656**	**0**	**0**	**5 870**	**874**	**923**	**856**	**21 235**
Thereof number of women		3 336	156	0	0	1 731	309	248	229	**6 009**
Thereof number of foreigners		2 851	71	0	0	1 163	92	182	97	**4 456**

Tab. 3.2: Paying Students (numbers)

BUT	CREF	Bachelor's Study		Master's Study		Continuing Master's Study		Doctoral Study		Total
		F	C/D	F	C/D	F	C/D	F	C/D	
Faculty of Civil Engineering										
Technical sciences and disciplines	21–39	3	0	0	0	1	0	0	0	**4**
Faculty of Mechanical Engineering										
Technical sciences and disciplines	21–39	4	0	0	0	2	0	3	1	**10**

BUT	CREF	Bachelor's Study		Master's Study		Continuing Master's Study		Doctoral Study		Total
		F	C/D	F	C/D	F	C/D	F	C/D	
Faculty of Electrical Engineering and Communication										
Technical sciences and disciplines	21–39	0	0	0	0	0	0	2	0	**2**
Faculty of Architecture										
Technical sciences and disciplines	21–39	0	0	0	0	0	0	0	0	**0**
Faculty of Chemistry										
Technical sciences and disciplines	21–39	0	0	0	0	0	0	0	0	**0**
Sciences and disciplines	11–18	0	0	0	0	0	0	0	0	**0**
Faculty total		**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Faculty of Business and Management										
Economics	62,65	0	0	0	0	0	0	0	0	**0**
Faculty of Fine Arts										
Disciplines on culture and arts	81,82	0	0	0	0	0	0	0	0	**0**
Faculty of Information Technology										
Technical sciences and disciplines	21–39	0	0	0	0	0	0	0	0	**0**
Institute of Forensic Engineering of BUT										
Technical sciences and disciplines	21–39	0	0	0	0	0	0	0	0	**0**
Central European Institute of Technology of BUT										
Technical sciences and disciplines	21–39	0	0	0	0	0	0	0	0	**0**
Total		**7**	**0**	**0**	**0**	**3**	**0**	**5**	**1**	**16**

Tab. 3.3: Unsuccessful students in first year of the studies (in %)

BUT	Bachelor's Study			Master's Study			Continuing Master's Study			Doctoral Study			Total
	F	C/D	Total	F	C/D	Total	F	C/D	Total	F	C/D	Total	
Faculty of Civil Engineering	33.77	63.06	37.53				7.01	30.95	9.32	17.33	31.82	20.62	**25.58**
Faculty of Mechanical Engineering	30.92	50.00	32.53				5.88	22.41	7.18	18.33	14.81	17.24	**23.60**
Faculty of Electrical Engineering and Communication	43.74	70.42	47.13				17.67	55.56	26.35	22.97	42.31	28.00	**38.75**
Faculty of Architecture	11.68		11.68				6.20		6.20	38.46	0.00	31.25	**9.11**
Faculty of Chemistry	44.77	67.65	47.06				3.02	43.75	8.66	34.15	66.67	44.07	**32.70**
Faculty of Business and Management	40.20	8.33	39.73				14.99	16.04	15.28	50.00	50.00	50.00	**28.07**
Faculty of Fine Arts	19.61		19.61				6.58		6.58	0.00		0.00	**11.11**
Faculty of Information Technology	24.72		24.72				21.65		21.65	14.04	16.67	14.29	**23.03**
Institute of Forensic Engineering of BUT							22.86		22.86	4.17	0.00	3.85	**17.71**
Central European Institute of Technology of BUT							37.99		37.99	38.46	14.29	30.00	**37.19**
Total	**34.75**	**60.86**	**36.88**				**11.14**	**31.91**	**13.94**	**20.77**	**33.96**	**23.73**	**20.77**

Tab. 3.4: Scholarships for students according to the purpose of the scholarship (numbers of individuals)

BUT Purpose of the scholarship	Number of students	Average scholarship
For excellent study results according to § 91 par. Article 2 a)	1 443	7 855.21
For excellent scientific, research, developmental, artistic or other creative results according to § 91 par. Article 2 b)	2 607	8 396.81
For research, development and innovation activities pursuant to a special legal regulation, § 91 par. c)	1 108	33 514.76
In the case of a difficult social situation of a student according to § 91 par. Article 2 d)	0	0
In the case of a difficult social situation of a student according to § 91 par. Article. 3	190	12 076.53
In cases worthy of special consideration according to § 91 par. Article 2 e)	0	0
Thereof accommodation scholarship	13 909	4 771.43
To support study abroad according to § 91 par. 4. a)	1 679	8 021.90
To support studies in the Czech Republic pursuant to Section 91 4. b)	31	77 990.32
Students of doctoral degree programs pursuant to Section 91 4. c)	1 220	65 048.61
Other scholarships	545	7 032.20
Total	**8 823**	**21 993.63**

Tab. 4.1: Students in accredited degree programs (numbers of completed studies)

BUT	CREF	Bachelor's Study		Master's Study		Continuing Master's Study		Doctoral Study		Total
		F	C/D	F	C/D	F	C/D	F	C/D	
Faculty of Civil Engineering										
Technical sciences and disciplines	21–39	726	18	0	0	615	36	3	37	**1 435**
Thereof number of women		267	4	0	0	243	16	2	12	**544**
Thereof number of foreigners		93	4	0	0	54	2	0	1	**154**
Faculty of Mechanical Engineering										
Technical sciences and disciplines	21–39	573	35	0	0	444	40	10	35	**1 137**
Thereof number of women		61	3	0	0	44	1	3	4	**116**
Thereof number of foreigners		78	0	0	0	54	1	3	8	**144**
Faculty of Electrical Engineering and Communication										
Technical sciences and disciplines	21–39	406	18	0	0	376	51	5	29	**885**
Thereof number of women		46	0	0	0	37	7	1	3	**94**
Thereof number of foreigners		86	1	0	0	73	12	2	7	**181**
Faculty of Architecture										
Technical sciences and disciplines	21–39	69	0	0	0	62	0	12	2	**145**
Thereof number of women		37	0	0	0	43	0	6	1	**87**
Thereof number of foreigners		15	0	0	0	14	0	3	1	**33**
Faculty of Chemistry										
Technical sciences and disciplines	21–39	132	6	0	0	73	17	9	12	**249**
Sciences and disciplines	11–18	0	0	0	0	0	0	2	6	**8**
Faculty total		**132**	**6**	**0**	**0**	**73**	**17**	**11**	**18**	**257**
Thereof number of women		91	4	0	0	50	14	4	10	**173**
Thereof number of foreigners		33	2	0	0	14	0	1	1	**51**
Faculty of Business and Management										
Economics	62,65	403	18	0	0	361	208	0	8	**998**
Thereof number of women		183	7	0	0	158	131	0	6	**485**
Thereof number of foreigners		55	1	0	0	58	3	0	1	**118**
Faculty of Fine Arts										
Disciplines on culture and arts	81,82	32	0	0	0	49	0	0	2	**83**
Thereof number of women		18	0	0	0	26	0	0	1	**45**
Thereof number of foreigners		5	0	0	0	6	0	0	0	**11**
Faculty of Information Technology										
Technical sciences and disciplines	21–39	313	0	0	0	200	0	1	15	**529**
Thereof number of women		25	0	0	0	17	0	0	0	**42**
Thereof number of foreigners		112	0	0	0	60	0	1	4	**177**
Institute of Forensic Engineering of BUT										
Technical sciences and disciplines	21–39	0	0	0	0	184	0	0	8	**192**
Thereof number of women		0	0	0	0	82	0	0	2	**84**
Thereof number of foreigners		0	0	0	0	13	0	0	1	**14**
Central European Institute of Technology of BUT										
Technical sciences and disciplines	21–39	0	0	0	0	0	0	0	0	**0**
Thereof number of women		0	0	0	0	0	0	0	0	**0**
Thereof number of foreigners		0	0	0	0	0	0	0	0	**0**
Total		**2 654**	**95**	**0**	**0**	**2 364**	**352**	**42**	**154**	**5 661**
Thereof number of women		728	18	0	0	700	169	16	39	**1 670**
Thereof number of foreigners		477	8	0	0	346	18	10	24	**883**

Tab. 5.1: Interest in studies at BUT

BUT	CREF	Bachelor's Study			Master's Study			Continuing Master's Study			Doctoral Study		
		No. of applications	No. of admitted	No. of registered for study	No. of applications	No. of admitted	No. of registered for study	No. of applications	No. of admitted	No. of registered for study	No. of applications	No. of admitted	No. of registered for study
Faculty of Civil Engineering					0	0	0	1 078	1 259	875	733	81	65	7
Technical sciences and disciplines	21–39	2 006	2 193	1 829	0	0	0	1 078	1 259	875	733	81	65	7
Faculty of Mechanical Engineering					0	0	0	915	1 248	1 072	647	83	70	60
Technical sciences and disciplines	21–39	2 118	2 338	2 294	0	0	0	915	1 248	1 072	647	83	70	60
Faculty of Electrical Engineering and Communication					0	0	0	651	727	693	553	104	90	83
Technical sciences and disciplines	21–39	1 690	1 934	1 270	0	0	0	651	727	693	553	104	90	83
Faculty of Architecture					0	0	0	143	143	109	90	24	21	16
Technical sciences and disciplines	21–39	412	413	205	0	0	0	143	143	109	90	24	21	16
Faculty of Chemistry					0	0	0	248	265	202	170	28	28	27
Technical sciences and disciplines	21–39	1 015	1 092	796	0	0	0	248	265	202	170	28	28	27
Sciences and disciplines	11–18	0	0	0	0	0	0	0	0	0	0	12	12	12
Faculty total		**1 015**	**1 092**	**796**	**0**	**0**	**0**	**248**	**265**	**202**	**170**	**40**	**40**	**39**
Faculty of Business and Management					0	0	0	1 340	1 752	993	635	32	27	26
Economics	62,65	2 123	2 462	1 242	0	0	0	1 340	1 752	993	635	32	27	26
Faculty of Fine Arts					0	0	0	54	55	43	43	20	8	6
Disciplines on culture and arts	81,82	354	356	57	0	0	0	54	55	43	43	20	8	6
Faculty of Information Technology					0	0	0	398	413	346	280	44	41	40
Technical sciences and disciplines	21–39	1 518	1 524	1 089	0	0	0	398	413	346	280	44	41	40
Institute of Forensic Engineering of BUT					0	0	0	390	424	309	218	17	13	12
Technical sciences and disciplines	21–39	0	0	0	0	0	0	390	424	309	218	17	13	12
Central European Institute of Technology of BUT					0	0	0	0	0	0	0	24	19	16
Technical sciences and disciplines	21–39	0	0	0	0	0	0	0	0	0	0	24	19	16
Total		**11 236**	**12 312**	**8 782**	**0**	**0**	**0**	**5 217**	**6 286**	**4 642**	**3 369**	**469**	**394**	**305**

Tab. 6.1: Academics and researchers (FTE numbers)

BUT	Academic staff							Scientific (non-academic.) staff	Other employees	Total
	Total number of academic Staff	Profess.	Assoc. Profess.	Asst. Profess.	Asst.	Lects.	Scientific, research and development staff involved in the teaching activities			
Faculty of Civil Engineering	**313.221**	**30.656**	**56.6**	**169.76**	**56.205**	**0**	**0**	**56.02**	**203.988**	**573.229**
Number of women at FCE	97.306	3.706	5.5	59.25	28.85	0	0	11.23	120.559	229.095
Faculty of Mechanical Engineering	**255.987**	**39.337**	**72.95**	**118.05**	**18.3**	**2**	**5.35**	**49.825**	**210.926**	**516.738**
Number of women at FME	34.2	0.35	2	25.45	6.4	0	0	1.4	84.151	119.751
Faculty of Electrical Engineering and Communication	**185.749**	**27.214**	**59.634**	**82.501**	**15.4**	**1**	**0**	**31.64**	**181.985**	**399.374**
Number of women at FEEC	37.45	2	9.55	15.9	9	1	0	3.3	61.726	102.476
Faculty of Architecture	**37.6**	**6**	**14.9**	**11.5**	**5.2**	**0**	**0**	**1.04**	**29.28**	**67.92**
Number of women at FA	8.3	2	1.8	3.5	1	0	0	0.27	17.1	25.67
Faculty of Chemistry	**49.362**	**9.862**	**12.2**	**26.3**	**0**	**1**	**0**	**31.045**	**106.039**	**186.446**
Number of women at FCH	20.55	3	0.7	15.85	0	1	0	10.055	61.388	91.993
Faculty of Business and Management	**70.975**	**9.2**	**17**	**40.025**	**4.75**	**0**	**0**	**3.05**	**34.556**	**108.581**
Number of women at FBM	26.75	3	4.75	14.75	4.25	0	0	1.98	25.243	53.973
Faculty of Fine Arts	**32.7**	**4**	**8.1**	**5.6**	**15**	**0**	**0**	**0**	**24.25**	**56.95**
Number of women at FFA	8.35	0	2	1.1	5.25	0	0	0	13.75	22.1
Faculty of Information Technology	**57.97**	**8.7**	**18.27**	**29.45**	**1.55**	**0**	**0**	**11.245**	**113.6**	**182.815**
Number of women at FIT	2.2	0	1	1.2	0	0	0	1	55.07	58.27
Institute of Forensic Engineering of BUT	**10.7**	**1.4**	**3.5**	**5.8**	**0**	**0**	**0**	**0**	**21.65**	**32.35**
Number of women at IFE	2	0	0	2	0	0	0	0	13.75	15.75
Center of Sport Activities	**12.2**	**0.7**	**2.1**	**3**	**6.4**	**0**	**0**	**0**	**19.35**	**31.55**
Number of women at CESA	5.4	0	1	2	2.4	0	0	0	14.25	19.65
Central European Institute of Technology of BUT	**8.04**	**1**	**0**	**7.04**	**0**	**0**	**0**	**102.13**	**118.665**	**228.835**
Number of women at CEITEC	0.7	0	0	0.7	0	0	0	17.34	38.15	56.19
Other workplaces	**2**	**0**	**1**	**1**	**0**	**0**	**0**	**0**	**428.444**	**430.444**
Number of women at other workplaces	1	0	1	0	0	0	0	0	268.288	269.288
Total	**1 036.504**	**138.069**	**266.254**	**500.026**	**122.805**	**4**	**5.35**	**285.995**	**1 492.733**	**2 815.232**
Total number of women	244.206	14.056	29.3	141.7	57.15	2	0	46.575	773.425	1 064.206

Tab. 6.2: Age structure of academic and research staff (numbers of individuals)

BUT	Academic staff												Scientific staff		Total
	Professors		Associate Professors		Assistant Professors		Assistants		Lecturers		SRDE				
	Total	Women	Total	Women	Total	Women	Total	Women	Total	Women	Total	Women	Total	Women	
under 29 years	0	0	0	0	9	4	20	7	0	0	0	0	58	18	**87**
30–39 years	2	0	42	2	303	54	80	28	1	1	0	0	182	30	**610**
40–49 years	12	1	97	6	120	37	32	18	1	1	1	0	33	7	**296**
50–59 years	39	5	50	13	55	30	16	12	1	0	0	0	22	1	**183**
60–69 years	58	6	67	7	65	28	1	0	1	0	1	0	9	0	**202**
over 70 years	45	3	50	4	13	3	1	1	0	0	1	0	11	0	**121**
Total	**156**	**15**	**306**	**32**	**565**	**156**	**150**	**66**	**4**	**2**	**3**	**0**	**315**	**56**	**1 499**

Tab. 6.3: Numbers of academic staff by the range of workloads and the highest qualification achieved (numbers of individuals)

Faculty of Civil Engineering

BUT	Academic staff										Scientific staff		Total	Thereof women
Range of workloads	Profs.		Assoc. Profs.		D.Sc., Ph.D., Th.D.		Others							
	Total	Women	Total	Women	Total	Women	Total	Women	Total	Women				
Up to 0.3	3	0	4	1	9	2	8	1	19	2	**43**	6		
0.31–0.5	1	0	9	1	23	5	13	4	9	0	**55**	10		
0.51–0.7	4	0	4	0	4	1	6	3	11	5	**29**	9		
0.71–1.0	27	4	49	5	135	46	60	34	29	9	**300**	98		
More than 1	0	0	0	0	0	0	0	0	0	0	**0**	0		
Total	**35**	**4**	**66**	**7**	**171**	**54**	**87**	**42**	**68**	**16**	**427**	**123**		

Faculty of Mechanical Engineering

Range of workloads	Profs.		Assoc. Profs.		D.Sc., Ph.D., Th.D.		Others					
	Total	Women	Total	Women	Total	Women	Total	Women	Total	Women		
Up to 0.3	4	0	11	0	14	1	10	2	6	1	**45**	4
0.31–0.5	8	1	8	0	15	3	5	1	12	0	**48**	5
0.51–0.7	9	0	13	0	9	3	4	1	7	1	**42**	5
0.71–1.0	24	0	59	2	95	19	16	7	20	0	**214**	28
More than 1	0	0	0	0	0	0	0	0	0	0	**0**	0
Total	**45**	**1**	**91**	**2**	**133**	**26**	**35**	**11**	**45**	**2**	**349**	**42**

Faculty of Electrical Engineering and Communication

BUT	Academic staff								Scientific staff		Total	Thereof women
Range of workloads	Profs.		Assoc. Profs.		D.Sc., Ph.D., Th.D.		Others					
	Total	Women	Total	Women	Total	Women	Total	Women	Total	Women		
Up to 0.3	2	0	3	0	8	0	2	0	11	0	**26**	0
0.31–0.5	4	0	8	1	8	3	1	0	5	0	**26**	4
0.51–0.7	5	0	6	1	8	2	1	1	5	0	**25**	4
0.71–1.0	20	2	47	8	63	9	19	14	20	3	**169**	36
More than 1	0	0	0	0	0	0	0	0	0	0	**0**	0
Total	**31**	**2**	**64**	**10**	**87**	**14**	**23**	**15**	**41**	**3**	**246**	**44**

Faculty of Architecture

Range of workloads	Profs.		Assoc. Profs.		D.Sc., Ph.D., Th.D.		Others					
	Total	Women	Total	Women	Total	Women	Total	Women	Total	Women		
Up to 0.3	0	0	1	0	0	0	0	0	0	0	**1**	0
0.31–0.5	0	0	0	0	2	0	4	1	0	0	**6**	1
0.51–0.7	0	0	0	0	0	0	0	0	0	0	**0**	0
0.71–1.0	6	2	15	2	7	2	6	1	0	0	**34**	7
More than 1	0	0	0	0	0	0	0	0	0	0	**0**	0
Total	**6**	**2**	**16**	**2**	**9**	**2**	**10**	**2**	**0**	**0**	**41**	**8**

Faculty of Chemistry

Range of workloads	Profs.		Assoc. Profs.		D.Sc., Ph.D., Th.D.		Others					
	Total	Women	Total	Women	Total	Women	Total	Women	Total	Women		
Up to 0.3	2	0	0	0	1	0	0	0	6	1	**9**	1
0.31–0.5	0	0	2	0	1	1	0	0	5	2	**8**	3
0.51–0.7	0	0	2	1	2	0	0	0	1	0	**5**	1
0.71–1.0	9	3	10	0	22	14	2	2	18	7	**61**	26
More than 1	0	0	0	0	0	0	0	0	0	0	**0**	0
Total	**11**	**3**	**14**	**1**	**26**	**15**	**2**	**2**	**30**	**10**	**83**	**31**

Faculty of Business and Management

Range of workloads	Profs.		Assoc. Profs.		D.Sc., Ph.D., Th.D.		Others					
	Total	Women	Total	Women	Total	Women	Total	Women	Total	Women		
Up to 0.3	0	0	0	0	0	0	1	1	0	0	**1**	1
0.31–0.5	0	0	1	0	2	1	4	0	0	0	**7**	1
0.51–0.7	1	0	0	0	0	0	0	0	1	1	**2**	1
0.71–1.0	9	3	17	5	38	15	4	4	0	0	**68**	27
More than 1	0	0	0	0	0	0	0	0	0	0	**0**	0
Total	**10**	**3**	**18**	**5**	**40**	**16**	**9**	**5**	**1**	**1**	**78**	**30**

BUT	Academic staff								Scientific staff		Total	Thereof women
Faculty of Fine Arts												
Range of workloads	Profs.		Assoc. Profs.		D.Sc., Ph.D., Th.D.		Others					
	Total	Women	Total	Women	Total	Women	Total	Women	Total	Women		
Up to 0.3	0	0	1	0	0	0	0	0	0	0	**1**	0
0.31–0.5	0	0	0	0	2	0	10	5	0	0	**12**	5
0.51–0.7	0	0	0	0	1	1	0	0	0	0	**1**	1
0.71–1.0	4	0	8	2	3	0	11	3	0	0	**26**	5
More than 1	0	0	0	0	0	0	0	0	0	0	**0**	0
Total	**4**	**0**	**9**	**2**	**6**	**1**	**21**	**8**	**0**	**0**	**40**	**11**
Faculty of Information Technology												
Range of workloads	Profs.		Assoc. Profs.		D.Sc., Ph.D., Th.D.		Others					
	Total	Women	Total	Women	Total	Women	Total	Women	Total	Women		
Up to 0.3	0	0	2	0	4	1	1	0	4	0	**11**	1
0.31–0.5	2	0	0	0	3	2	0	0	2	0	**7**	2
0.51–0.7	0	0	1	0	4	0	0	0	0	0	**5**	0
0.71–1.0	8	0	17	1	24	0	1	0	7	1	**57**	2
More than 1	0	0	0	0	0	0	0	0	0	0	**0**	0
Total	**10**	**0**	**20**	**1**	**35**	**3**	**2**	**0**	**13**	**1**	**80**	**5**
Institute of Forensic Engineering of BUT												
Range of workloads	Profs.		Assoc. Profs.		D.Sc., Ph.D., Th.D.		Others					
	Total	Women	Total	Women	Total	Women	Total	Women	Total	Women		
Up to 0.3	0	0	0	0	1	0	0	0	0	0	**1**	0
0.31–0.5	1	0	1	0	0	0	0	0	0	0	**2**	0
0.51–0.7	0	0	0	0	1	0	0	0	0	0	**1**	0
0.71–1.0	1	0	3	0	4	1	1	1	0	0	**9**	2
More than 1	0	0	0	0	0	0	0	0	0	0	**0**	0
Total	**2**	**0**	**4**	**0**	**6**	**1**	**1**	**1**	**0**	**0**	**13**	**2**
Center of Sport Activities												
Range of workloads	Profs.		Assoc. Profs.		D.Sc., Ph.D., Th.D.		Others					
	Total	Women	Total	Women	Total	Women	Total	Women	Total	Women		
Up to 0.3	0	0	1	0	0	0	1	1	0	0	**2**	1
0.31–0.5	0	0	0	0	0	0	0	0	0	0	**0**	0
0.51–0.7	1	0	0	0	0	0	0	0	0	0	**1**	0
0.71–1.0	0	0	2	1	2	1	7	3	0	0	**11**	5
More than 1	0	0	0	0	0	0	0	0	0	0	**0**	0
Total	**1**	**0**	**3**	**1**	**2**	**1**	**8**	**4**	**0**	**0**	**14**	**6**

BUT	Academic staff								Scientific staff		Total	Thereof women
Central European Institute of Technology of BUT												
Range of workloads	Profs.		Assoc. Profs.		D.Sc., Ph.D., Th.D.		Others					
	Total	Women	Total	Women	Total	Women	Total	Women	Total	Women		
Up to 0.3	0	0	0	0	0	0	0	0	23	5	**23**	5
0.31–0.5	1	0	0	0	0	0	0	0	18	3	**19**	3
0.51–0.7	0	0	0	0	4	1	0	0	17	1	**21**	2
0.71–1.0	0	0	0	0	4	0	0	0	59	14	**63**	14
More than 1	0	0	0	0	0	0	0	0	0	0	**0**	0
Total	**1**	**0**	**0**	**0**	**8**	**1**	**0**	**0**	**117**	**23**	**126**	**24**
Other workplaces												
Range of workloads	Profs.		Assoc. Profs.		D.Sc., Ph.D., Th.D.		Others					
	Total	Women	Total	Women	Total	Women	Total	Women	Total	Women		
Up to 0.3	0	0	0	0	0	0	0	0	0	0	**0**	0
0.31–0.5	0	0	0	0	0	0	0	0	0	0	**0**	0
0.51–0.7	0	0	0	0	0	0	0	0	0	0	**0**	0
0.71–1.0	0	0	1	1	0	0	1	0	0	0	**2**	1
More than 1	0	0	0	0	0	0	0	0	0	0	**0**	0
Total	**0**	**0**	**1**	**1**	**0**	**0**	**1**	**0**	**0**	**0**	**2**	**1**
BUT total	**156**	**15**	**306**	**32**	**523**	**134**	**199**	**90**	**315**	**56**	**1 499**	**327**

Tab. 6.4: Academic and scientific staff with foreign citizenships (numbers of individuals)

BUT	Academic staff	Scientific staff
Faculty of Civil Engineering	8	8
Faculty of Mechanical Engineering	9	6
Faculty of Electrical Engineering and Communication	7	14
Faculty of Architecture	0	0
Faculty of Chemistry	2	6
Faculty of Business and Management	5	0
Faculty of Fine Arts	6	0
Faculty of Information Technology	2	4
Institute of Forensic Engineering of BUT	0	0
Center of Sport Activities	0	0
Central European Institute of Technology of BUT	2	16
Total	**41**	**54**

Tab. 6.5: Newly Appointed Assoc. Professors and Professors (numbers)

BUT	Number			Average age of the newly appointed
	At the university		Basic staff appointed at another university	
	Total	Thereof the basic staff of the university		
Faculty of Civil Engineering				
Professors appointed in 2016	0	0	0	0
thereof women	0	0	0	0
Assoc. Professors appointed 2016	4	4	0	38
thereof women	0	0	0	0
Faculty of Mechanical Engineering				
Professors appointed in 2016	2	2	0	54
thereof women	0	0	0	0
Assoc. Professors appointed 2016	7	7	0	41
thereof women	2	2	0	40
Faculty of Electrical Engineering and Communication				
Professors appointed in 2016	3	3	0	40
thereof women	0	0	0	0
Assoc. Professors appointed 2016	9	9	0	37
thereof women	0	0	0	0
Faculty of Architecture				
Professors appointed in 2016	0	0	0	0
thereof women	0	0	0	0
Assoc. Professors appointed 2016	2	2	0	56
thereof women	0	0	0	0
Faculty of Chemistry				
Professors appointed in 2016	2	2	0	63
thereof women	1	1	0	64
Assoc. Professors appointed 2016	1	1	0	39
thereof women	0	0	0	0
Faculty of Business and Management				
Professors appointed in 2016	1	1	0	61
thereof women	1	1	0	61
Assoc. Professors appointed 2016	0	0	0	0
thereof women	0	0	0	0
Faculty of Fine Arts				
Professors appointed in 2016	0	0	0	0
thereof women	0	0	0	0
Assoc. Professors appointed 2016	2	2	0	50
thereof women	0	0	0	0
Faculty of Information Technology				
Professors appointed in 2016	0	0	0	0
thereof women	0	0	0	0
Assoc. Professors appointed 2016	3	3	0	37
thereof women	0	0	0	0
Total no. of Professors	**8**	**8**	**0**	**52**
thereof women	2	0	0	62
Total no. of Assoc. Professors	**28**	**28**	**0**	**42**
thereof women	2	2	0	40

Tab. 7.1: BUT involvement in international cooperation programs (regardless of the source of funding)

BUT	H2020 / 7. Framework Program EC			Total
	Total	Thereof Marie-Curie Actions	Others	
No. of projects	37	1	35	**73**
No. of outgoing students	22		798	**820**
No. of incoming students	2	1	915	**918**
No. of outgoing academics and researchers	28	0	235	**263**
No. of incoming academics and researchers	12	0	50	**62**
Subsidies in thousand CZK	88 316	203	160 230	**248 749**

Tab. 7.2: Mobility of students and academic staff by country

BUT / Country	No. of outgoing students – Total	No. of outgoing students – Thereof graduate internships	No. of incoming students	No. of outgoing academics	No. of incoming academics	No. of other outgoing staff	No. of other incoming staff	Total for the country
Australia	1							**1**
Bangladesh			1					**1**
Belgium	25		3	3				**31**
Bosnia and Herzegovina	2		2	2	2			**8**
Brazil			8					**8**
Bulgaria	8		25	7	6	2	2	**50**
Montenegro	1		1	1	2			**5**
China	2		5					**7**
Denmark	26		9	2		2		**39**
Estonia	12		4	3			2	**21**
Finland	42		17	3		4	3	**69**
France	35		117	6		3	1	**162**
Georgia			6					**6**
Croatia	3		6	3	1	2		**15**
India			1					**1**
Indonesia	6							**6**
Ireland	5			2		3		**10**
Iceland	5			2		1		**8**
Italy	59		39	15		6		**119**
Israel	1							**1**
Japan	1							**1**
South African Republic	2							**2**
Canada	1							**1**
Kazakhstan			8					**8**
Colombia			1					**1**
South Korea			1					**1**
Cyprus							2	**2**
Liechtenstein	2							**2**
Lithuania	15		59	3				**77**
Latvia	4		3	3			3	**13**
Hungary	4		1	1	1	1	1	**9**
Macedonia			3	4				**7**
Malta	9		21	2		7		**39**
Mexico	3		5					**8**
Moldova	1				1			**2**
Germany	100		26	16		4	1	**147**
Netherlands	51		2					**53**
Norway	24			1		4		**29**
Poland	13		42	6	3	6	2	**72**
Portugal	48		50	3		3		**104**
Austria	105		10	17	1	6		**139**
Romania	1		4	1		2		**8**
Russia	4		12					**16**
Greece	20		61	10			2	**93**
Singapore			18					**18**
Slovakia	14		38	26	8	2		**88**
Slovenia	25		10	5	1	2	2	**45**
United Arab Emirates			1					**1**
USA	11							**11**
Serbia	2				8			**10**
Spain	38		150	14		16	4	**222**
Sweden	23		2			1		**26**
Switzerland	7		2					**9**
Thailand			2					**2**
Thai-wan	4		35					**39**
Tunisia			1					**1**
Turkey	9		98	1				**108**
United Kingdom of Great Britain and Northern Ireland	44		8	9		15	3	**79**
Vietnam	2							**2**
Total	**820**	**0**	**918**	**171**	**34**	**92**	**28**	**2 063**

Note: The data mentioned do not reflect the source of mobility funding, as set out in the methodology for filling in the table. In electronic form, Table 7.2 is given with a complete list of all the world states. In the printed version of the annual report, there are only those countries mentioned for which BUT registered some form of foreign mobility in 2016.

Tab. 7.3: Mobility of graduates (share of completed studies)

BUT	Bachelor's Study	Master's Study	Continuing Master's Study	Doctoral Study	Total
Faculty of Civil Engineering					
Share of graduates who spent abroad during their studies at least 14 days [%]	6.14		13.28	18.42	**15.85**
Share of Ph.D. graduates whose length of stay abroad reached at least 1 month (i.e. 30 days) [%]				18.42	**18.42**
Faculty of Mechanical Engineering					
Share of graduates who spent abroad during their studies at least 14 days [%]	0.68		14.16	35.14	**16.66**
Share of Ph.D. graduates whose length of stay abroad reached at least 1 month (i.e. 30 days) [%]				35.14	**35.14**

BUT	Bachelor's Study	Master's Study	Continuing Master's Study	Doctoral Study	Total
Faculty of Electrical Engineering and Communication					
Share of graduates who spent abroad during their studies at least 14 days [%]	0.48		7.69	17.24	**8.47**
Share of Ph.D. graduates whose length of stay abroad reached at least 1 month (i.e. 30 days) [%]				17.24	**17.24**
Faculty of Architecture					
Share of graduates who spent abroad during their studies at least 14 days [%]	19.7		33.87	37.5	**30.36**
Share of Ph.D. graduates whose length of stay abroad reached at least 1 month (i.e. 30 days) [%]				37.5	**37.5**
Faculty of Chemistry					
Share of graduates who spent abroad during their studies at least 14 days [%]	0		22.35	31.58	**17.97**
Share of Ph.D. graduates whose length of stay abroad reached at least 1 month (i.e. 30 days) [%]				31.58	**31.58**
Faculty of Business and Management					
Share of graduates who spent abroad during their studies at least 14 days [%]	2.25		9.16	62.5	**24.64**
Share of Ph.D. graduates whose length of stay abroad reached at least 1 month (i.e. 30 days) [%]				62.5	**62.5**
Faculty of Fine Arts					
Share of graduates who spent abroad during their studies at least 14 days [%]	35.71		25.64	50	**37.12**
Share of Ph.D. graduates whose length of stay abroad reached at least 1 month (i.e. 30 days) [%]				50	**50**
Faculty of Information Technology					
Share of graduates who spent abroad during their studies at least 14 days [%]	5.26		20.53	6.25	**10.68**
Share of Ph.D. graduates whose length of stay abroad reached at least 1 month (i.e. 30 days) [%]				6.25	**6.25**
Institute of Forensic Engineering of BUT					
Share of graduates who spent abroad during their studies at least 14 days [%]	0		3.05	12.5	**5.18**
Share of Ph.D. graduates whose length of stay abroad reached at least 1 month (i.e. 30 days) [%]				12.5	**12.5**
Central European Institute of Technology of BUT					
Share of graduates who spent abroad during their studies at least 14 days [%]				0	**0**
Share of Ph.D. graduates whose length of stay abroad reached at least 1 month (i.e. 30 days) [%]				0	**0**
Total [%]	**7.80**		**16.64**	**27.11**	

Tab. 8.1: Conferences (co)organized by BUT

BUT	With more than 60 participants	International conference
Faculty of Civil Engineering	6	8
Faculty of Mechanical Engineering	5	6
Faculty of Electrical Engineering and Communication	11	9
Faculty of Architecture	3	3
Faculty of Chemistry		
Faculty of Business and Management		1
Faculty of Fine Arts		1
Faculty of Information Technology	5	1
Institute of Forensic Engineering of BUT	2	2
Central European Institute of Technology of BUT		3
Total	**32**	**34**

Tab. 8.2: Application sphere experts participating in teaching in accredited study programs (numbers)

BUT	Persons having a job contract with BUT or one of its parts			Persons not having a job contract with BUT or its parts		
	Number of teaching persons	Number of persons supervising the final thesis	Number of persons participating in practical training	Number of teaching persons	Number of persons supervising the final thesis	Number of persons participating in practical training
Faculty of Civil Engineering	41	55	15	44	69	8
Faculty of Mechanical Engineering	30	43	13	39	68	5
Faculty of Electrical Engineering and Communication	12	1		23	56	183
Faculty of Architecture		8		4		
Faculty of Chemistry				12	12	
Faculty of Business and Management	28	17	6			
Faculty of Fine Arts	5			35	1	
Faculty of Information Technology	1	1	1	7	7	7
Institute of Forensic Engineering of BUT				6	5	
Total	**117**	**125**	**35**	**170**	**218**	**203**

Tab. 8.3: Numbers of specializations for which the curricula include the mandatory completion of a professional internship of at least 1 month (numbers)

BUT	Numbers of specializations	Numbers of students in these specializations
Faculty of Civil Engineering	3	415
Faculty of Electrical Engineering and Communication	8	1 664
Faculty of Business and Management	1	332
Total	**12**	**2 411**

Tab. 8.4: Transfer of knowledge and research results into application sphere

BUT	In CR	Abroad	Total number	Total income (thous. CZK)
Number of new spin-offs/start-ups	1		1	
Patent applications	20	6	26	
Patents granted	37	6	43	
Registered utility patterns	27	0	27	
Licensing contracts valid as of December 31	20	34	54	958
Newly contracted licenses	6	10	16	
Contractual research, consultancy				170 915
Paid educational courses for employees from the application sphere				8 707

Tab. 12.1: Housing and food

BUT	Number
Total bed capacity of university dormitories	6 390
Number of beds in rented facilities	0
Number of applications / reservations for accommodation to 31/12/2016	6 134
Number of approved applications / reservations for accommodation to 31/12/2016	6 134
Number of bed-days in 2016	1 489 424
Number of main meals served to students in 2016	827 729
Number of main meals served to employees in 2016	102 597
Number of main meals served to other boarders in 2016	63 049

Tab. 12.2: BUT Libraries

BUT	Number
Annual acquisitions per 1 year	6 071
Total library fund	235 677
Number of subscribed journals:	
physically	712
electronically (estimate)	100
both forms	10

Tab. 12.3: Institutional Development Plan of BUT in 2016

BUT	Provided funds (contribution) in thousand CZK		Achievement of targets/indicators	
Institutional Development Plan	Capital	Conventional	Initial state	Target state
Priority Goal 1: Quality Assurance and Strategic Management				
1.1 Preparing the concept of employee care		1 200	Lack of systemic activity in human resource development	Functioning and modernized Department for Personnel Management and Development
1.2 Preparation of the EUA reevaluation and implementation of recommendations from the last evaluation		1 200	Evaluation of EUA from 2010	Preparations for self-assessment report, the start of the evaluation moved to 2017
1.3 Strengthening the role of strategic approaches through the development of the Strategic Management and Development Department in connection with Ipn projects		1 300	Starting strategic BUT management within IPn projects; Revision and defining hierarchy of internal regulations and standards	Analyzes of the current state and defining BUT priorities in the main areas of activities; Analysis of internal regulations and standards
1.4 Building the quality system of BUT and its constituent parts in 2016–2018		2 500	Improving quality in all areas / directions of BUT activities, especially in relation to quality of management, education and cooperation, in national and international terms	Implementation of new legislation; further development of the internal quality management system and its adaptation to international recommendations and national requirements
1.5 Support of Platforms of Technical Schools and their development, cooperation with the application sphere and practice – support of technical education		800	Platform does not exist (CTU Statement and BUT signed)	Platform meetings, technical university links; Close cooperation agreed; Preparation for a joint CRP project
1.6 Analysis and building of the Rector's Office as an effective and helpful service to faculties and constituent parts	100	900	There is no integrated or consolidated overview of economic and decision-making data on economic planning and budget management at the level of individual HSs; Existing FC methodology is inadequate; Organization of processes at the central level of university management; Adaptation of internal organizational standards	Developed data structures documenting BUT management structure; Newly prepared adapted FC methodology and its certification; Documentation and commenced organizational changes in economic activities at the Rector's Office; Documentation and organizational changes related to the performance of inspection activities at the Rector's Office; Approved documentation of the overall organizational analysis of the Rector's Office as a process and organizational optimization plan for the Rector's Office; Proposals and explanatory reports of optimization and adaptation of existing internal standards BUT incl. the draft of new ones, submitted for discussion to BUT (namely: BUT Rules of Organization, BUT Rector's Office)
1.7 Strategically oriented project management incl. TT		450	Was not implemented	Analysis of the current state of CPP and CTT functioning, merging into one DPS department – complete reorganization; New operational concept of DPS

BUT	Provided funds (contribution) in thousand CZK		Achievement of targets/indicators	
Institutional Development Plan	Capital	Conventional	Initial state	Target state
1.8 Support of BUT self-government and autonomy		750	Support of AS BUT activities	Supporting activities leading to the design of electronic tools to enhance direct information; timely implementation of amendments to the BUT internal regulations resulting from the approved amendment to Act No. 111/1998 Coll. And preparation of an amendment to the BUT internal regulations concerning the BUT AS activities; A seminar for AS BUT members and guests focusing on main topics
1.9 Development of risk management at BUT		1 000	Was not implemented	Gradual process mapping + risk identification; Developing a new internal control system directive; The first evaluation of the defined risk management
Priority Goal 2: Diversity and Availability of Educational Activities				
2.1 BUT cooperation with primary, secondary and higher vocational schools		1 000	5 competitions for secondary school students	17 competitions for secondary school students, 33 projects for current BUT students leading to the acquisition of new applicants, 33 BUT students supported by an extraordinary scholarship
2.2 Support for first-year students		3 200	Number of students enrolled in the 1st year of the Bachelor's degree program; the initial value in 2015 is 500 students	The target value for 2016 is 500 students; the 500 best first year students were supported
2.3 Support for talented students		1 700	Starting value in 2015: about 150 students supported by scholarships	159 students supported by scholarships; 69 student projects focused on teamwork; 34 students involved in professional competitions and conferences at national and international level
2.4 Developing cooperation with the application sphere in education		1 800	Degree programs do not always include practical forms of instruction (academically vs. practically oriented degree programs)	Internships in companies, practical training; The involvement of experts in teaching; An increase of the theses, whose themes are inspired by application sphere; Thematically oriented conferences and discussion forums of BUT management and faculties with representatives of the application sphere
2.5 Support of Joint Master Degree programs at BUT and the increase in the number of study programs delivered in foreign languages		2 200	Several DD degree programs at the FMI / FBM in cooperation with foreign universities	Developing existing and creating new international study disciplines; Increasing the number of postgraduate students involved in international programs
2.6 Support of Lifelong Learning Institute activities for the academic community		1 800	1,100 course participants, 90 scheduled courses	Situation in 2016: 1,969 participants; 204 courses
2.7 Support of U3A development		800	In 2015, the recalculated U3A BUT performance was 48,968 student hours	Increase in 2016: 2.77%; 2,713 students in total
2.8 Support of handicapped BUT applicants		1 000	Initial status in 2015: 850 users of services, 300 users of individual consulting services, 550 users of services within group activities	1,436 users of services; 772 individual consultations; 664 group activities

BUT	Provided funds (contribution) in thousand CZK		Achievement of targets/indicators	
Institutional Development Plan	Capital	Conventional	Initial state	Target state
Priority Goal 3: Internationalization				
3.1 Support of international cooperation		4 000	Initial values for 2015: 19 bilateral contracts, 28 sub-contracts and general international contracts	72 bilateral contracts, 29 sub-contracts and general international contracts
3.2 Support of international mobility of BUT academic staff		2 000	35 outgoing persons / 16 incoming persons	72 outgoing persons / 26 incoming persons
3.3 Support of international mobility of BUT students		5 000	400 student-months	340.75 student-months
Priority Goal 4: Relevance, graduates, marketing, and collaboration with the application sphere				
4.1 Support of the activities of the Department of Marketing and External Relations		1 000	Performance indicators – number of cooperating companies, BUT graduates database	10 new partnerships with major companies and sponsorships; 28,821 presently registered graduate addresses
4.2 Support of marketing and presentation of BUT in the Czech Republic and abroad		2 000	Active participation in 2 domestic and 4 foreign trade fairs; The number of study applications through an online campaign	Participation in 2 domestic and 5 foreign trade fairs; 7,189 applications submitted via an online campaign
Priority Goal 5: Quality and relevant research, development and innovation				
5.1 Promoting excellence of publishing activities at BUT		15 300	373 publications in WoS/Journal Citation Reports v Q1, Q2, Q3 a Q4	Increase to 478 publications – in the WoS / Journal Citation Reports in Q1, Q2, Q3 and Q4
Priority Goal 6: Decision-making and development based on information and data				
6.1 Libraries – services		1 200	Initial values in 2015: 0 development of marketing strategy, 0 upgraded or newly created teaching and promotional materials, 400 Facebook page Central Library in Brno fans, 0 research and user testing, 0 e-learning courses with mentoring teachers, 0 prepared and realized seminars with mentoring teachers, 5 promotions (seminars, trainings), 0 participations in the professional conferences, 35,000 digital documents stored, 100,000 repository entries, 0 citation analyzes performed	Values for 2016: 1 developing Marketing Strategy, 17 innovated or newly created teaching and promotional materials, 651 fans of the Facebook page Central Library in Brno, 4 research and user testing, 6 e-learning courses with mentoring teachers, 4 prepared and implemented seminars with the participation of mentored teachers, 7 promotional events (seminars, trainings), 2 participations in professional conferences, 47,055 saved digital documents, 153,836 accesses to repository, 39 citation analyzes performed
6.2 Development of the educational computer network and the main data center	1 000	1 500	A. Initial capacity of BUT connection to 2×10Gbps internet B. Initial number of types of electronic approval processes at BUT = 2 (travel orders, internal grant agency) C. Initial Number of Room Records Systems = 3 (GTF, Central Database, and SAP) D. Initial number of translated interfaces that allow work in English: 1 (Study)	A. The BUT connection to the Internet is 40Gbps B. New Electronic Authorization Processes C. New system of passporting completed D. Completion of the translation of the BUT IS into English

BUT	Provided funds (contribution) in thousand CZK		Achievement of targets/indicators	
Institutional Development Plan	**Capital**	**Conventional**	**Initial state**	**Target state**
Internal competition				
Internal competition		10 592	In 2015, 97 projects were supported	In 2016, 101 projects were supported by internal competition
Total	**1 100**	**66 192**		

13

CONCLUSION

Based on the previous pages, BUT proved to be one of the major technical universities not only in the Czech Republic but also in the European context. Thanks to its educational programs and scientific research, BUT ranks among the top in technical, natural and artistic sciences, which was also the case in 2016. This annual report represents the key areas of activities of the university and, according to the Ministry of Education, Youth and Sports, it is newly divided into text and table parts. The introductory part presents key events of the university in the given calendar year, such as important anniversaries and prestigious awards received by BUT students and staff. The activities of the Academic Senate of BUT are also presented in this introductory part.

In 2016, BUT attempted to follow the Long-term Plan for 2016–2020 and its update for 2016. This year was largely effected by the impact of the amendment to the Higher Education Act, which has significantly influenced the functioning of Czech universities. This influence is expected to continue into the following years. This significant change is reflected in the area of internal regulations, such as in the chapter on quality. The amendment has recently become one of the key areas for all Czech universities, including BUT.

The Annual Report mentions a number of projects that were implemented in cooperation with the application sphere and industrial partners. BUT staff also cooperate with foreign universities, state and public administration bodies or important cultural institutions, located within and beyond the South Moravian region. This very successful collaboration helps increase the credit of BUT as a reliable partner.

The last day of 2016 brought to an end the transition period for the unified visual style, allowing the use of both the old and new university logos. Since 1 January 2017, only the new red-and-white BUT logo with its pronounced letter T, referring to the word technology, can be used in external communication.

The year 2016 ranked among the most successful, however, quite demanding and sometimes hectic years. It has brought a number of changes for universities, the impact of which will continue to effect their functioning in the years to come. Hopefully, even the coming years, started by 2017, will be at least as successful for BUT as 2016 was.

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