



MASARYK  
UNIVERSITY



# Annual Activity Report

# 2017





**MASARYK UNIVERSITY  
ANNUAL ACTIVITY REPORT**

**2017**

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# Foreword

2017 was a year of significant change for the university's institutional life. Such times of change are infrequent—some years see only refinements made to steps that have been taken in the past; in other years, the ground is being laid for changes that still await; and in others, the institutional status quo is maintained. In 2017, what I have referred to tongue-in-cheek as the 'Big Bang' brought change to the degree programmes of all the university's faculties. We quickly found our way around the new legislation and methodology put in place by the National Accreditation Bureau for Higher Education. In fact, we seized the opportunity across faculties to take stock of our degree programs, which had multiplied after a review in the 1990s to the point that orientation for students was difficult, and streamline and clarify the offering.

At the same time, we were able to create the conditions for faculties to collaborate on an unprecedented scale, also implementing joint bachelor's programs with 'major' and 'minor' fields of study. Many previous fields of study were integrated into clear-cut degree programs with a specialization, even at the master's level. With institutional accreditation now obtained and approval from MU's Board of Internal Evaluation, this new structure will be implemented starting with the 2019/2020 academic year.

A number of academic staff from the individual faculties as well as from university bodies prepared the quality proposal for institutional accreditation and submitted it to the National Accreditation Bureau in late 2017. The modified offering of degree programmes was followed by the preparation of key strategic projects under the Research, Development, and Education OP. In upcoming years, these will support the creation of infrastructure for the use of simulation in teaching medicine and other academic areas.

Steps were taken as well in a host of areas tied to the university's key objective of increased competitiveness in the international higher education market. At a session late in 2017, the Masaryk University Scientific Advisory Board noted that progress had been made, particularly with regard to the openness of HR policy and efforts at internationalization of the university.

Changes to HR included the preparation and approval of norms: the Masaryk University Internal Wage Regulations, and Regulations on Competitive Selection Procedures at Masaryk University. Both norms bring us closer to the standards of successful foreign universities and create the conditions for an influx of quality scholars and teachers and improved remuneration for all employees. A rising level is evident in scholarship at the university, and scientometric data confirms that the quality of scientific work is increasing as well. MU is also among the most successful institutions in the country at navigating the rigorous requirements for winning European research grants. Concurrent with its growing international reputation and improvements in key academic indicators—chief among them the student/teacher ratio—the facts above are reflected in the university's rising international rankings. MU is the only large university in the Czech Republic to strengthen its position in international competition, with particular growth in Asia.

For all this, I would like to extend my thanks to all the people who have worked with head and heart on the university's behalf, as well as to the many students who have made this such a successful higher educational institution.

**Mikulas Bek**  
Rector





# Masaryk University's Mission, Values and Vision

**Masaryk University strives to create and disseminate knowledge, thus enhancing the quality of life and fostering cultural growth in the community. This mission stems from the university's founding values.**

## Our Values

Since its founding following the establishment of the Czechoslovak Republic, Masaryk University has always respected and professed values reflecting the republican and democratic ethos of that initial period. To this day, such values form the basis of its internal culture and are widely embraced by the academic community. These values are:

- **Freedom**, respected and defended as the governing principle of the inner workings of the university in terms of the academic freedom of teaching and research, freedoms such as a students' right to design their own curricula, freedom as the principle of institutional autonomy exercised by the university towards the state, and – last but not least – freedom as a social imperative.
- **Respect for rules** ensuring equal opportunities and transparency regarding the functioning of the institution, as manifested e.g. by internal administrative and economic settings, study-related regulations and the war on plagiarism.
- **Responsibility**, comprising the university's public role, as exemplified by its function with respect to the creation of public opinion and active participation in public debate as well as its significance as knowledge and technology transfer mediator and public service provider and its position as a university which welcomes both disadvantaged students and members of various minorities. In terms of an inwardly-oriented approach, individual responsibility for the choice and structuring of one's own curriculum forms the basis for the functioning of an open and autonomous study environment.

## Our Vision

By 2020, Masaryk University will be:

- **a university with a better position among world universities**, measured using quality and performance indicators in international rankings,
- **a respected research university** boasting internationally renowned research teams, **clearly defined priorities and interdisciplinary research topics**,
- **a university offering a valuable higher education based on a stable and universal** foundation comprised of both social and natural sciences,
- **a university whose comprehensive offer of education reflects technological developments and changes**, a university which is thus perceived as a leader in Czech higher education
- **a university which functions as a role model in both national and international contexts** with respect to facilitating access to educational opportunities for all applicants exhibiting the required learning potential regardless of disabilities and social or other impairments,
- **an employer providing all employees with a motivating work environment** which inherently stimulates a **responsible, efficient, creative and ethical approach**
- **a strategic partner** for representatives of institutions at all levels of the educational system, research institutions, commercial and public subjects and medical and special-interest organizations, as well as an **active participant** in the development of cultural, artistic and sports activities in the region,
- **an inspiring community with a strong voice** in the development of national policies and strategies as well as society-wide and regional issues,
- **a strong and open-minded academic community with a comprehensive common internal culture** based on clearly defined values and a consensual approach.



## Secondary School Student on MU Science Team Wins Young European Scientist Title

**Karina Zadorozhny (born Karina Movsesjan) is a student at a Karlovy Vary grammar school but has already published two articles and holds the position of specialist in the Department of Chemistry at the MU Faculty of Science. Her research, carried out at the university, began thanks to MU's tradition of collaborating with talented secondary school students. Zadorozhny examines proteins that are key to the maintenance of the human genome. Because of her commitment, she won the 29th European Union Contest for Young Scientists and obtained the prestigious title of Young European Scientist. After her school-leaving examination, she plans to study biochemistry and continue with her laboratory work.**

Foto: Karina Zadorozhny at the Bohunice Campus laboratory

Strategic Priority:

# Degree Programme Diversification and Accessibility



## 1.1

Admission to the  
Bachelor's and Master's  
Degree Programmes

## 1.2

Academic  
Counselling

## 1.3

Activities for Applicants  
and Collaboration with  
Schools

## 1.4

Bachelor's and  
Master's Programmes

## 1.5

Lifelong Learning

# 1.1

## Admission to the Bachelor's and Master's Degree Programmes

A significant change to the admissions process came with a complete makeover of the **electronic admission application** to bring it in line with contemporary trends and make it clearer and more attractive for applicants. In 2017, **22,859 applicants** submitted a total of **40,431 applications** to study at MU in the bachelor's and long-cycle master's programs.

Another fundamental change in 2017 was the introduction of sittings of the **Learning Potential Test (LPT) in a number of cities in the Czech and Slovak Republics**. In addition to Brno, the test was taken on 6 and 7 May 2017 by applicants in Prague, Ostrava, Ceske Budejovice, Jihlava, Zlin, Hradec Kralove, as well as in Bratislava, Zilina, Banska Bystrica and Kosice. More than 90% of applicants were able to sit the test in their preferred location. Only 7% of applicants were forced to take the test in Brno despite their preference for another location, because they were simultaneously sitting discipline-specific exams that were held only in Brno.

**An e-learning prep course for the LPT**, online practice tests, and openly available versions of all examinations that have been used to date are **available free of charge on the university website** to enable all applicants to prepare for the admissions test no matter their economic status nor how far they live from the university.

At selected faculties (FSci MU, FA MU, FSps MU), the **LPT was administered simultaneously with tests in individual disciplines**. This allowed applicants to take all the components of the admissions tests, or at least a substantial portion of them, on a single date.

There were no substantial changes to the admissions procedures of the faculties in 2017. The university is planning changes to fields of study and an overall transformation its academic programs, which will be reflected in changes to student admissions for the upcoming academic year. While FSS MU continued to employ the testing services of Scio, students were also given the option of choosing to take the LPT admissions exam. FSci offered applicants the choice of taking the original LPT, discipline-specific exams, or both variants, and then using their best scores.

High-quality applicants to the faculty were **admitted without having to sit exams** on the basis of excellent marks in secondary school, a demonstration of significant interest in the subject area attested to by success in secondary school science fairs, good results in competitive national exams, or a high score on the **Mensa IQ test**.

# 1.2

## Academic Counselling

**The new MU Counselling Centre** was established at the university in April 2017 as part of the MUNI 4.0 project. Its goal is to build a comprehensive, university-wide counselling system that is adequate right up to the academic program level. During the year, the MU Counselling Centre put together its offering of services for students and applicants and strove to **initiate institutional measures to limit academic failure**.

In October 2017, the Masaryk University Counselling Centre began providing cost-free professional **psychological consultations** in the form of individual consultations both face-to-face and online via Skype in Czech or English. Because of a substantial rise in the number of students seeking psychological counselling services during the autumn semester, the psychologist team was significantly expanded and the number of counselling hours per week increased to completely cover the student demand. In all, 93 students participated in 260 psychological consultation sessions starting in October 2017.

Counselling services are also provided at the individual faculties. The main location for the provision of counselling services at all faculties is the registrar's office, which provides references to particular locations and persons. Most faculty websites also have an FAQ for students, or a so-called **student manual**.

FSS MU has a **network of academic counsellors in place who provide counselling at the subject level**, differentiated in some cases by focus—stays abroad, for instance, or internships. **Peer mentoring** is in effect at FMed MU—officially appointed upper-level students advise younger students how to handle their academic schedule and the rigours that attend it. FSci MU conducts **themed seminars for secondary and elementary school teachers and students** to give them a close-up look at the individual academic disciplines. Counselling services provided by the registrar are complemented by those offered by the **Assistant Director for Academic Affairs**, who advises students at the academic discipline level. FEdu has the chief topics connected with studying at the university available in FAQ form on its faculty website. Other faculties (FEA MU, FI MU, FA MU) launched new websites in 2017 that provide students with an overview of information about the course of their studies.

The **Maths and Stats Support Centre** at FEA MU is open to students of all Brno universities. Tutors at the Centre offer free mathematical and statistical consultations on evaluating data for final theses, as well as other help in the study of mathematics.

# 1.3

## Activities for Applicants and Collaboration with Schools

In 2017, Masaryk University organized a range of activities targeted at secondary schools and potential university applicants. By tradition, lectures are held in secondary schools in both the Czech Republic and Slovakia. **MU students discuss their own experience** in the university environment with the secondary students at the same time they introduce them to the university's course offerings and acquaint them with admissions exams. **MU professors and researchers** also go out to the secondary schools, giving students the opportunity to experience a university lecture right in their own classrooms.

2017 also saw a **meeting with the heads of partner secondary schools**, with the goal of sharing ideas and developing collaboration. **Open Day** was held in September—a day on which the entire university opened its doors, during which registered participants had the chance to experience university life via the special program.

A regularly updated information service was available for applicants at [facebook.com/StudujNaMuni](https://facebook.com/StudujNaMuni), in monthly newsletters, and in the **online magazine studujnamuni.cz**. The Teiresiás Centre held **preparatory courses for the Learning Potential Test for disabled applicants**.

To increase the knowledge and motivation of students who have been accepted but not yet enrolled, each faculty sent out an **electronic newsletter** containing the details of study at the faculty. The university serves as a co-organizer of the nationwide secondary school **contest pišQworky**, with the final held at the university. At the start of 2017, the successful online campaign **followmasaryk** was also conducted. The graphic campaign turned into a year-round platform for communicating with applicants and led to the **opening of the Munishop**, selling popular merchandise, in May 2017.

Several times a year, the various faculties of Masaryk University offer their own Open Houses, in addition to **events** aimed at secondary students which are **focused on the individual disciplines**.

FSS MU organized a **Day of Open Windows** that featured online information for applicants interested in the follow-up master's program. A special microsite, [chcinafss.cz](https://chcinafss.cz), is in place for applicants, with new recruiting videos available every year. Potential applicants have the chance to participate in various events organized by the individual departments (such as **FSS Day and Night**) before registering for the university.

FEdu MU created a **new academic handbook for students and applicants** containing detailed information about teaching practice, courses in education and psychology, language courses, internationalization, and teacher training at the faculty.

FEA MU also launched a new website aimed at applicants. One way that motivated applicants come to the faculty is via the **Seminar of Economic Brains**, a **correspondence course for secondary school students** who are tasked with solving 20 problems from various areas of economics. In addition to material prizes, the faculty admits the three highest ranking students without requiring an entrance examination.

At the Faculty of Science, correspondence seminars and other activities that target secondary school students, such as summer camps and week-long outings, have a long tradition. A popular example is **Bioscop**, a **biology club** for both primary and secondary school students, and there are the interdisciplinary contests *InterLoS* and *InterSoB* (co-organized with the Faculty of Informatics), the *N-trophy* contest (involving experiments and research in biology, chemistry, physics, and logic), and the *Riches of the Earth* program organized in conjunction with the Faculty of Economics and Administration.

In 2017, a first-ever 20-week **Foundation Course** was held at the Faculty of Medicine. It provided intensive instruction in chemistry, biology, physics, and Czech to **prepare foreign applicants for the entrance examinations** in General Medicine and Dentistry. 30 students, most from Japan and the United Arab Emirates, participated in the course. 20 students—after having completed the course—passed the exams and were accepted to the faculty.

At the Faculty of Arts, the **Open Faculty** project was launched in 2017. Part of the project was **Mock LPT**, a first-time event that was popular with applicants for the opportunity it gave them to check their skills and thereby reduce their fears about the entrance examination.

The Faculty of Informatics continued in the implementation of its own promotional and communications strategy. Brochures on studying at the faculty, research conducted in English, and activities organized for the secondary schools were sent out to 600 secondary schools and 1,400 students talented in IT and mathematics (usually contest winners in the CR and SR). The faculty continued to develop collaboration with secondary schools and created its own **ambassador programme for the secondary schools**. It also works closely with six Brno secondary schools by supervising clubs, organizing lectures, and supporting independent work by secondary students as well as offering lifelong learning courses to gifted students.

## 1.4

## Bachelor's and Master's Programmes

Although no new degree programmes were accredited in 2017, one that had received accreditation in 2016 was put into operation. This was the bachelor's degree in **Geography and Cartography/Czech Language and Literature**, offered via inter-faculty collaboration between the Faculty of Science and the Faculty of Arts.

The Faculty of Arts opened a new bachelor's degree programme in 2017 in **Ukrainian Studies**, conceived as a single-subject and double-subject specialization study. Jobs for graduates are expected to be found in exacting administrative positions that require thorough knowledge of the Ukrainian environment, overall general knowledge, and foreign-language skills.

The Faculty of Social Studies opened a new bachelor's programme in **International Relations and European Politics** taught in English. Students acquire their specialization via electives that focus on specific issues to do with international relations and international organization, as well as on the foreign policies of selected countries and regions.

**Assistant for Schools** is a new combined bachelor's programme offered at the FEdu. Its aim is to produce graduates who are ready to take part in educating young people and who are skilled in leisure-time pedagogy. The programme is designed for those who wish to do leisure-time work with children and youth, as well as for those who wish to acquaint themselves with the current principles of pedagogy and psychology.

A new degree program was opened at the faculty of education entitled **Lower Secondary School Teacher Training in Czech Language and Literature for Pupils Who Are Non-Native Czech Speakers**. Reacting to societal developments in Europe, this field of study offers specialized subjects such as phonetics for foreigners and spoken Czech in addition to the core curriculum. The competencies thereby acquired qualify graduates to teach Czech to foreigners, to work as lecturers in integration centres for foreigners, and to work abroad as teachers of Czech. Another new degree specialization in **Special Education Communication Techniques** will enable graduates to provide counselling through the use of special education tools and procedures that target pupils with various disabilities—hearing- or visually-impaired pupils or those with physical disabilities.

A new master's degree programme entitled **Conflict and Democracy Studies** is taught in English at the Faculty of Social Studies. It aims at exploring potential relationships between the quality of democracy, democratization, authoritarian and totalitarian regimes, and conflicts. The program acquaints students with the nature

of current conflicts and provides them with a theoretical and methodological apparatus to be able to carry out their own research in the area. Concurrently, the program develops critical thinking so that graduates are able not only understand conflicts but aid in their resolution.

At the Faculty of Sports Studies, students enrolled in the new **Fitness Trainer** follow-up master's programme primarily receive instruction in coaching and preparing fitness training plans for people of various levels and ages who engage in a wide range of sports. Graduates may find work both in the private sector and the public sector, as well as in sports clubs and fitness centres.

Masaryk University laid the basis for a new offering of degree programs in 2017. In the context of major changes to the legislation governing higher education, the university created conditions that will allow new elements to be introduced that will significantly expand study opportunities. Agreement was reached across the institution on a common procedure for utilizing these elements. The result is a **combined study model (with major and minor fields of study)** and the opportunity to **create specializations within the individual degree programs**. The goal of these changes is above all to enable the structure of the university's bachelor's degree programs to be clarified, so that applicants and students may make informed decisions about their course of study.

Requirements common to all degree programmes and their components at the university were formalized in a new directive in 2017 entitled **Guidelines for the Creation of Degree Programmes**, along with the particulars of single-subject curricula, curricula for degrees with a specialization, and combined study curricula (major and minor) in the bachelor's and follow-up master's degree programmes. Detailed degree programme requirements deriving from general accreditation standards applicable to all universities and specific requirements imposed by MU were entered into forms that are part of the mandatory documentation for the approval of degree programmes at the university. Support tools were also created that allow degree programs and curricula to be prepared inside the MU Information System.

The faculties took advantage of these tools throughout 2017 to reshape their degree programs in a way that would comply with the new rules. Preparations were organized by university management to ensure seamless implementation of the new degree program structure in the 2019/2020 academic year.

# 1.5

## Lifelong Learning

Masaryk University places great emphasis on the support and development of lifelong learning for all professional and age groups. In 2017, lifelong learning developed in accordance with the MU Strategic Plan: working closely with the Rector's Office, faculties implemented more than a thousand lifelong learning programmes, most of which were professionally-oriented. Specifically, in 2017 the number of lifelong programmes passed the magic threshold of 1000, with **1,041 programmes serving 18,997 participants**.

Many of these are accredited degree programmes, complemented by **professionally-oriented supplementary, specialized, and retraining courses for a broad range of professions**. Typical participant groups include teachers, doctors, social workers, state and public officials, sports coaches, and senior citizens taking part in the University of the Third Age.

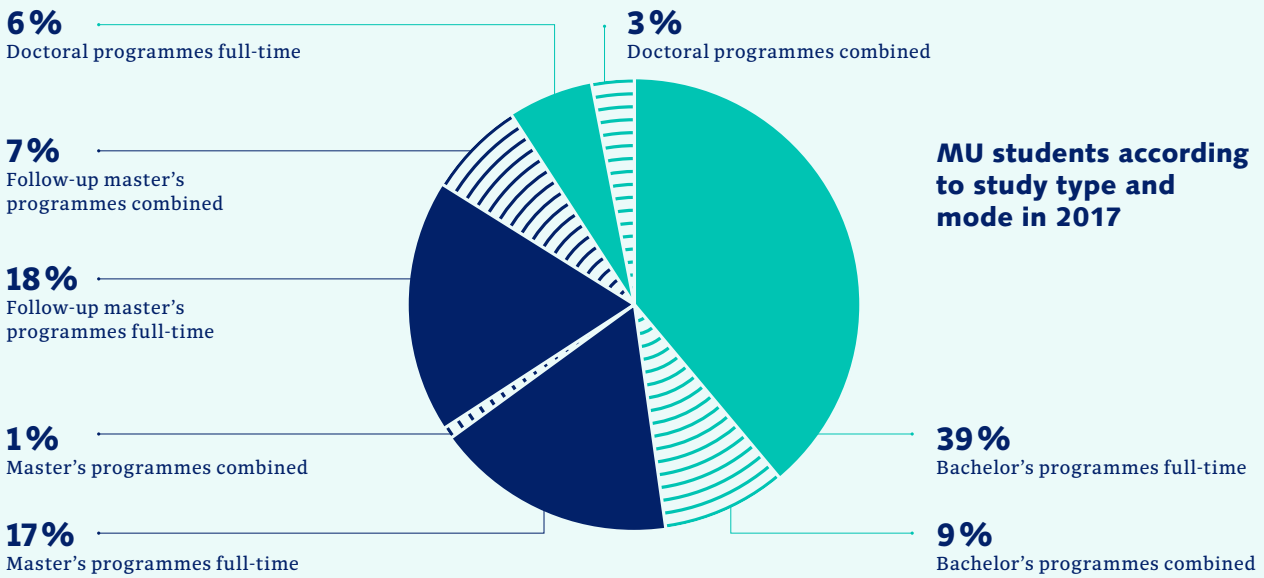
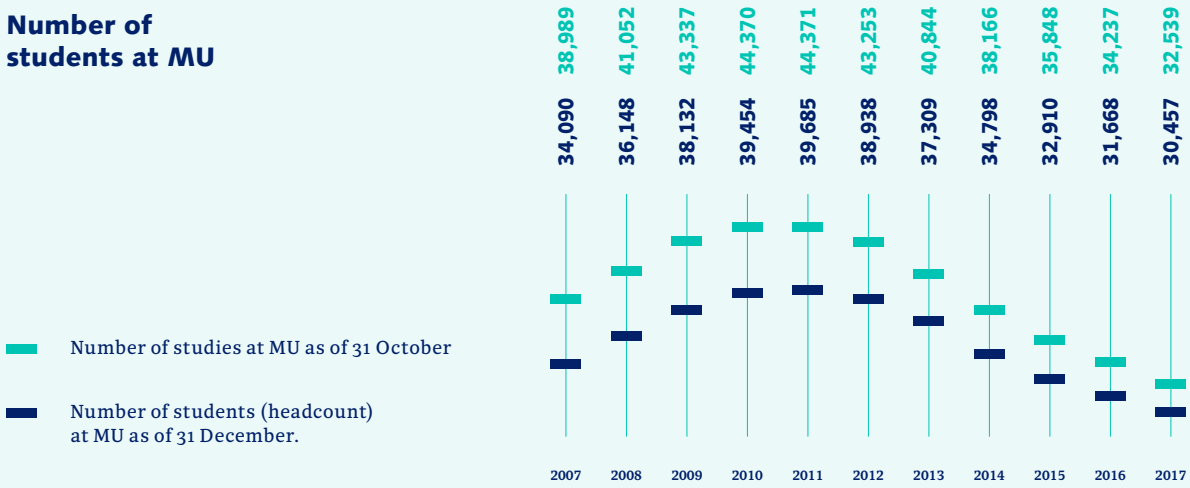
In 2017 more than in previous years, courses in the natural sciences and medicine were developed for participants across the age spectrum. In addition to training and broadening the education of a variety of individuals in various professions, these courses offer enjoyable, practical popularizations of science. Good practice examples include **MjUNI** and the **Bioscop science teaching center**, which taught courses to several thousand primary and secondary students, as well as to their parents and grandparents. By means of these activities, MU is able to foster interest in science on the part of young people, to create competencies for lifelong learning, and to support the increasing interest in intergenerational learning.

In organizing courses to target specific groups of professionals, media and methods have been increasingly utilized that allow the public to access learning from anywhere in the world. Masaryk University places a high priority on the development and provision of ICT-based technologies that **effectively support digital education**. This role is currently played in the MU Information System by Elportal.

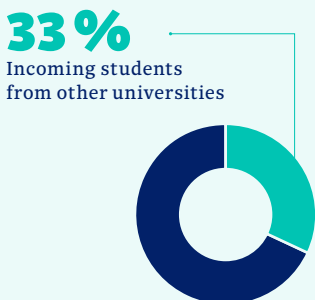
Since 1990, lifelong learning at MU has included the **University of the Third Age**. U3A joins with the South Moravian Regional Authority and Brno City Hall, among others, to conduct educational activities in senior homes. In 2017, 14 such events were enjoyed by 250 people. Other partner organizations include the National Heritage Institute, the Moravian Library, and the Moravian Museum.

As part of lifelong learning, in 2017 the Teiresiás Centre provided instruction to **59 participants in specialized courses** designed for people with disabilities that targeted IT, foreign language, and sports.

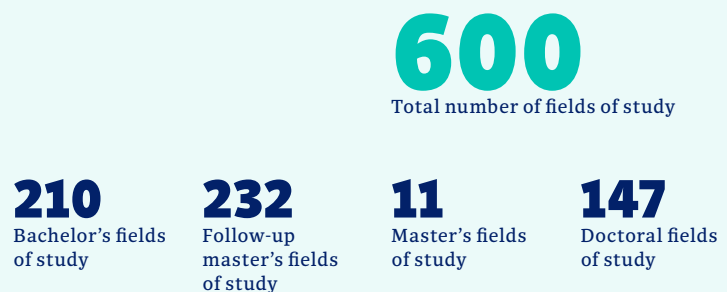
### Number of students at MU



### Proportion of students from other universities enrolled in follow-up master's programmes at MU



### MU study offer in 2017



Total number of fields of study at MU, implemented in various forms, languages and field combinations.



## Admission procedure for the 2017/2018 academic year (bachelor's and long-cycle master's degree programmes)

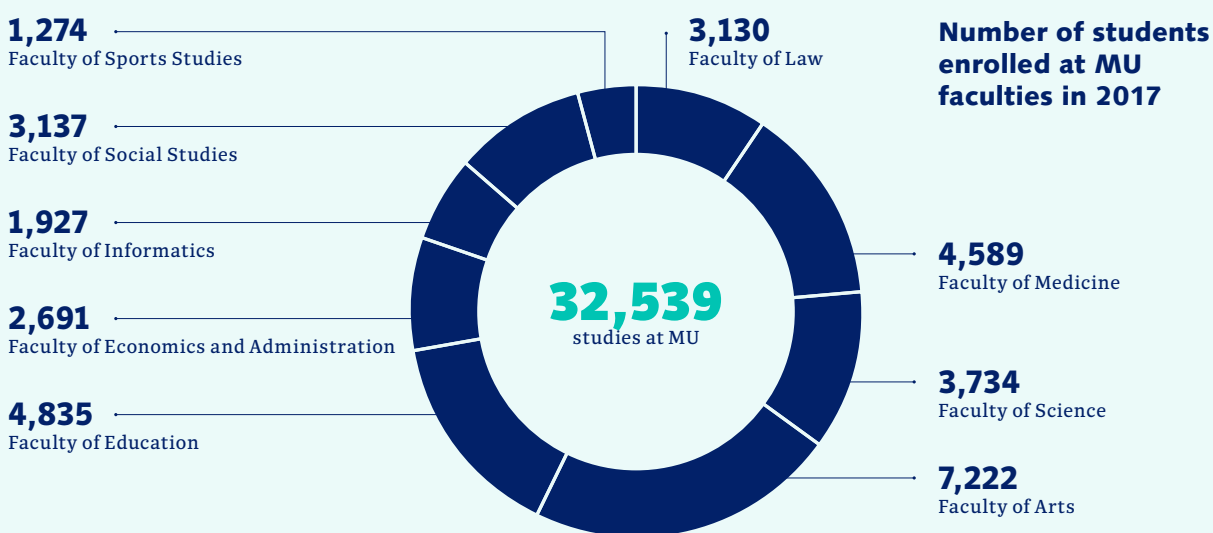
**22,859**  
Number of applicants

**64.7%**  
Czech applicants from outside the South Moravian region

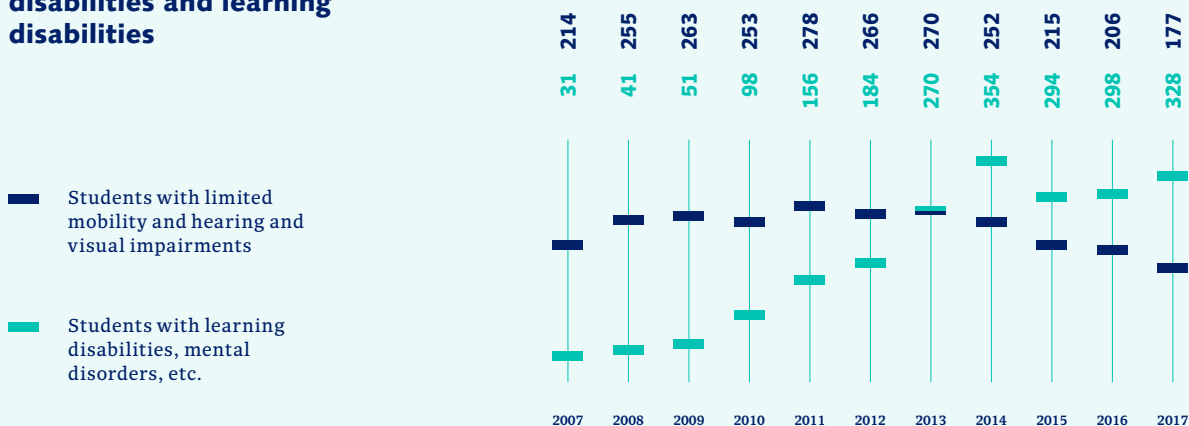
**40,431**  
Applications submitted

**14,808**  
Applicants admitted

**7,669**  
Applicants enrolled



## Number of students with disabilities and learning disabilities





# Masaryk University to Build a Medical Simulation Centre at Campus

**A simulation centre offering practical instruction for future physicians will be built on the university's Bohunice campus. Construction will be funded under a grant application that has now been accepted as part of the SIMU+ project, with a total budget of almost CZK 1.2 billion. The five-story, low-energy building will simulate the actual hospital environment, including an emergency room with fully-equipped model ambulance, a heliport, intensive care unit, operating rooms, maternity ward, examination rooms, dental offices, and regular hospital rooms. Here, in the safe environment of the simulation centre, students will have the opportunity learn how to provide both every day treatment and specialized procedures.**

Foto: Vizualization of the simulation centre in Bohunice, Brno

Strategic Priority:

# Quality in Education

# 2

## 2.1

**Internal Quality  
Assurance and  
Assessment System**

## 2.2

**Institutional  
Accreditation**

## 2.3

**Surveys and  
Feedback**

## 2.4

**Support for  
Talented Students**

## 2.5

**Making Instruction Attractive  
Through New Technology and  
Teaching Methods**

## Internal Quality Assurance and Assessment System

For more than a decade, Masaryk University has been developing its internal quality assurance and assessment system by introducing individual mechanisms on a step-by-step basis. Last year, these mechanisms were integrated into an interconnected whole. The strategic steps the university took toward quality assurance were successfully tied to new tools anchored in the amended Higher Education Act and the laws that stem from it. On the basis of its experience to-date, the university created **new internal regulations in 2017 that provide a detailed definition of rules and procedures** aimed at quality assurance. These regulations are gathered together under an internal umbrella regulation entitled **Masaryk University Educational, Creative and Associated Activities Quality Assurance and Internal Evaluation System Guidelines** that, along with some related documents, provides for the comprehensive integration of quality assurance principles and procedures for the university's key activities. In addition, the Rector's Office and the faculties have been given substantial **additional quality assurance staff** to help introduce new quality assurance elements into all levels of the university's operations.

A key element to the quality assurance system is the internal assessment of activities, typically combining **internal self-evaluation and external feedback**; this then serves as background material for follow-up decisions on further development and targeted support for university activities. **Quality assurance and assessment covers educational, creative, and other associated activities**—all the areas touched on in the Higher Education Act, the Government Regulation on Accreditation Standards in Higher Education, and the Directives on Standards and Guidelines for Quality Assurance in the European Higher Education Area. The reality at universities is that educational activities, research, and related support activities such as degree program counselling, the development of academic competencies, and mobility support all interconnect with and mutually influence each other. In keeping with the university's mission, the quality assurance system lays emphasis on educational activity, specifically on degree programs.

In 2017, MU anchored the key procedures for degree program quality assurance in the internal **Masaryk University Degree Programme Quality Approval, Management and Evaluation Regulation** (hereinafter "Degree Programme Regulation"). A significant reference point for its creation was the set of *MU Degree Programme Quality Standards*. These were conceived to allow degree programs to be checked for correspondence to statutory requirements, as well as to aid in the ongoing develop-

ment of study programs and in improving the environment for student-oriented instruction. The university's quality assurance and assessment system is governed by university and faculty self-governing bodies in which academic staff and students, graduates, employers, and external experts take part.

The central body concerned with MU's quality assurance and assessment program is the **Internal Evaluation Board**, officially established in December 2016, which began operation in 2017. The Board is composed of **15 members** chaired by the Rector. Members are chosen from the areas in which the university is pedagogically active. In 2017, **11 regular board meetings** took place during which the Board approved the draft of *Masaryk University Educational, Creative and Associated Activities Quality Assurance and Internal Evaluation System Guidelines*, discussed other internal MU regulations related to quality assurance (the Internal Evaluation Board Rules of Procedure, degree programme regulation), approved reports on MU internal quality assessment, created a set of forms for internal approval of degree programmes, and discussed three proposals for new degree programmes.

Masaryk University possesses an evolved, specialized administrative apparatus that provides continuous support to bodies and people involved in the quality assurance and assessment system and in related activities. Support staff work under the MU Rector's Office and focus on the university's educational, creative, and related activities. As part of managing the quality assurance and assessment system, a **network of quality coordinators** was put in place in 2017 at the individual MU faculties to support quality assurance in education.

On May 4-5 of the year, together with the Czech Rectors Conference, the Higher Education Council, and the Centre for Higher Education Studies, MU organized the **Quality Assurance in Higher Education** conference for the **18<sup>th</sup> year**. The chief topic this year was changes to degree programs mandated by the new higher education laws.

## 2.2

### Institutional Accreditation

The culmination of the effort to develop an internal quality assurance and assessment system came with the submission in 2017 of an **application for institutional accreditation covering 23 instructional areas**. This was the university's first experience in preparing such an application, and special attention was therefore given to readying the documentation.

The application included a **Report on the Internal Quality Assessment of Educational, Creative, and Related Activities at MU**, which summarized the key findings of an assessment carried out from 2012 to 2016 and documented steps taken by the university to address these findings. The structure of the report corresponds to the current long-term plan, divided into 11 strategic priorities reflecting the university's current mission and vision. The individual sections of the report show **key quantitative indicators** of development over the preceding five years, a description of **the progress the university has achieved in the quality dimension**, and a discussion of the university's key activities, processes, measures that have been undertaken, and conclusions drawn from institutional surveys. In addition, the report noted **whether the recommendations of the 2012 IEP-EUA external evaluation had been acted upon**. Since 2013, these recommendations—for administration and management, quality assessment, degree programmes, instruction, research and internalisation—have been included in the annual Updates to the MU Strategic Plan; many have served as themes for the current strategic plan. With five years having elapsed, the report presented what seemed the most appropriate opportunity for assessing what action had been taken on the conclusions received from the external evaluators.

As part of its institutional accreditation procedures, MU also prepared a **Self-Evaluation Report** assessing the extent to which the individual requirements mandated in the accreditation standards had been fulfilled, including any relating to financial, material, or other resources for MU operations. In the report, the university **thoroughly describes its institutional environment**, with special emphasis on the dynamically developing mechanisms for assuring quality in educational, creative, and related activities, and offers a detailed account of the experience gained in each of the **23 fields of study** for which institutional accreditation was requested.

**MU submitted the completed accreditation application on 6/12/2017** to the National Accreditation Bureau for Higher Education and published all relevant documents on its website.

## 2.3

### Surveys and Feedback

One input consulted in implementing Masaryk University's strategy is feedback from institutional surveys. Over a several year period, a portfolio for each target group was assembled that captured all phases of group members' academic plans and university careers.

In 2017, a new survey was added, the **Applicants for studies at MU** survey, which contacted more than 23,000 people, including foreign students, soon after their e-applications had been accepted. Survey results complemented those of a prior survey entitled **The Image of MU as Perceived by Czech and Slovak Secondary School Students**, implemented in collaboration with FOCUS Marketing & Social Research in late 2016 and early 2017.

Incoming students were contacted as part of the longitudinal **Study Roadmap** survey, mapping out students' study paths and professional development from a long-term, student-centred perspective. Three university units took part in the initial sending of the survey: the Department of Educational Sciences, Faculty of Arts, MU; the Institute for Research of Children, Youth and Family; and the Strategy Office of the Rector's Office, MU.

Incoming MU students were also the target group for a survey entitled **Motivation and Expectations of Incoming Master's Students from Other Universities**. For the fourth time, questions were answered by students who signed up for a follow-up Master's degree at MU after having graduated from another university. An English version of the survey was made available, as well, which allowed the inclusion of a substantial number of students studying in follow-up degree programmes at MU with a university degree from abroad.

Given the objective of reducing academic failure, special attention was paid to the results of the regular survey **Premature Termination of Studies at MU**. In 2017, this survey was extended to include a **Survey of Causes for Premature Termination of Studies from the Perspective of MU Study Field Guarantors**. The results of both these surveys were valuable to university management, especially in view of the opportunity for comparison they enabled: the key factors in academic failure from the perspective of both students and academic staff.

Comprehensive feedback also included a survey of fresh graduates of full-time master's degree programs at MU. In this survey, entitled **Completion of Studies at MU – Looking Back and to the Future**, graduates were asked about their job prospects.

For 14 years, every semester at MU has concluded with the **Course Opinion Poll** filled in by students as feedback for their instructors. In Autumn Semester 2017, 36% of students took part in the evaluation process.

## Support for Talented Students

The individual university faculties strive to support excellent students and extraordinary talent via scholarship programmes, special courses targeting selected student groups, and the award of prizes such as the Dean's Award.

At the **Faculty of Law, MU**, a scholarship programme is in place for students with outstanding academic results to support their participation in the course *Introduction to English and European Union Law*. A significant factor in both university study and career readiness is independent academic and research work on the part of students, which reinforces their ability to present the results of their work and defend them in public. To this end, the Faculty of Law organizes many academic contests and awards prizes to students with extraordinary talent (e.g., the *František Weyer Award*, *IUS et SOCIETAS Award*, the *Legal Debate Tournament*, etc.). Partners involved in these events include the Constitutional Court, Supreme Court, Supreme Administrative Court, Supreme State Prosecutor's Offices, the Ombudsman, and when appropriate, other Czech and Slovak universities.

**The Faculty of Medicine** includes selected gifted students in the *P-Pool* program (an undergraduate programme for motivated medical students who are provided with extra research preparation). The program involves selected students in research-oriented activities from the outset of their studies, effectively offering them an expanded version of the standard *General Medicine* degree programme that includes more than 40 instructors. In the 2016-17 academic year, the *P-Pool* programme registered 16 students in Year 1, 17 students in Year 2, 18 students in Year 3, and 17 students in their Year 4.

At the **Faculty of Science**, traditional correspondence seminars are organized for talented secondary school students: BRKOS, KOMAR, IBIS, and VIBUCH. These are used to motivate students to continue their academic careers at the FSci, MU. Talented students receive extensive support through a scholarship programme that recognizes their academic and creative results at the same time it encourages them to represent the university in events and activities that pertain to their studies.

In addition to a scholarship program that recognizes academic and creative results, the educational and humanitarian work of **Faculty of Education** students also receives recognition. Targeted are students who have provided significant help beyond the obligations of their academic program to children, youth, and adults who are socially disadvantaged, disabled, or ill.

**The Faculty of Economics and Administration** rewards its best students with academic merit scholarships and a scholarship program that supports research work. In addition, students receive awards for exceptional bachelor's and master's theses. The faculty also organizes TopSeC—the Top Students Centre—an event that provides students across MU with a unique opportunity to meet regularly with practicing experts at specialized workshops, take part in mock job interviews, improve their soft skills, and learn about the everyday working lives of participating TopSeC experts. In the 2017/2018 academic year, students met representatives of KPMG, Bisnode, Deloitte, EY, Lidl, and the Vienna Insurance Group.

**The Faculty of Informatics** provides monetary support for top students under its academic merit scholarship programme. The amounts awarded depend on academic marks. (In 2017, approximately 100 students benefited from the programme.) Newly admitted students with good prospects may draw support from a motivation scholarship programme. (In 2017, 67 students benefited from the programme.) Furthermore, gifted students receive support via the *Programme for the Support of Student R&D Projects*, which allows them to put their expertise into practice. All FI students may attend the 14 FI laboratories and take part in their research.

**Faculty of Social Studies** students may benefit from the *Masaryk Scholarship for Gifted Political Scientists*, a program that supports study abroad, and the *Inocenc Arnost Blaha Scholarship Programme*, under which the authors of the best bachelor's theses from among all the faculty's departments receive awards.

Students at the **Faculty of Sports Studies** may, in addition to benefits under a creative scholarship program and scholarship program for academic merit, receive support for representing the faculty in sports.

Students at the **Faculty of Arts** have a wide range of support programmes available for their academic work and related activities. Support is given for academic merit; extraordinary contributions; publications; participation in associations, and cultural and artistic work; to incentivize international mobilities; Erasmus+; excelling despite difficult life circumstances; and specialized field trips.

## 2.5

### Making Instruction Attractive Through New Technology and Teaching Methods

**E-support for teaching** has been integrated directly into the Masaryk University Information System (IS MU), which provides an online learning environment and tools to teachers, students, and the general public (secondary school students, lifelong learners, etc.). In 2017, these tools were expanded to take a number of new trends into account, and innovative tools brought benefits to teachers and students alike. Among the areas innovation was felt were testing, evaluation (notebooks), e-attendance (using cards), and new study materials. **Multimedia and Interactive Teaching Aids** were created in a collaborative effort between teachers and IS MU staff, who lent a helping hand in introducing technology innovations and interactive teaching elements and in preparing e-publications and e-courses.

2017 was also significant due to the **gradual introduction of responsive design into e-learning applications** and increased user comfort in using these applications on mobile devices. The Student section was thoroughly re-worked. New graphics used in interactive course outlines brought greater ease of navigation; and an overview of teaching elements and activities is available on the homepage, along with an indicator of academic progress that provides information on the percentage of coursework completed.

The 7<sup>th</sup> year of the annual **IS MU E-learning Open Space Conference** focused on **fostering an active approach on the part of students**. More than 170 of the university's employees and doctoral students met ideas on how to support the work of students throughout the semester, became acquainted with the Peer Instruction method, and got hands-on experience with the use of opinion polling software during lectures. **MOOC tools and online courses for the public** were also presented, along with feedback on their initial use.

The Information Technologies Board of the Masaryk University heard a report on e-learning summarizing IS MU opportunities and outputs. In addition, an **E-learning Strategy** was prepared. The main objective is to be able to use instructional technology in a careful but trusting manner, effectively and creatively developing students' knowledge and experience.

Masaryk University's effort to ensure instruction is up-to-date and attractive is reflected in the annual **internal grant scheme of the Masaryk University Development Fund**. Within the scheme, the following are among the thematic areas that receive support: *Reinforcing Practical Aspects of Education by Using Practitioners to Teach Courses*, and *Reinforcing Project-Oriented Instruction*. Selected projects representing individual faculties are presented below.

Faculty of Education: **Teaching Natural Science Didactics in a Way That Reinforces the Professional Competency of Education Majors**. This course reinforced student collaboration across four parallel seminar groups. Students designed and implemented integrated thematic instruction for primary school pupils.

Faculty of Arts: **Virtualization of Ceramic Assemblage with Pottery Marks for Teaching Purposes**. The project aimed at student practice in trending documentation techniques, and the creation of a collection of unique archaeological artefacts.

Faculty of Social Studies: **Project-Oriented Innovation of the Elections in Practice, and Data and Elections Courses**. As part of the project, students collected data during the elections for the Czech Chamber of Deputies and contacted 5000 constituents. The results were used to prepare teaching materials.

Faculty of Informatics: **Innovation of the Introduction to Information Retrieval Course**. The project updated teaching materials for a course which equates students with the techniques, algorithms, and procedures used by Google, Seznam, and Facebook.

Faculty of Economics and Administration: **Introduction of IT Technologies in Mathematics and Mathematics 2**. Under this project, teaching units were created that may be run in Maple. The project allows students to use the latest software tools to solve math problems effectively.

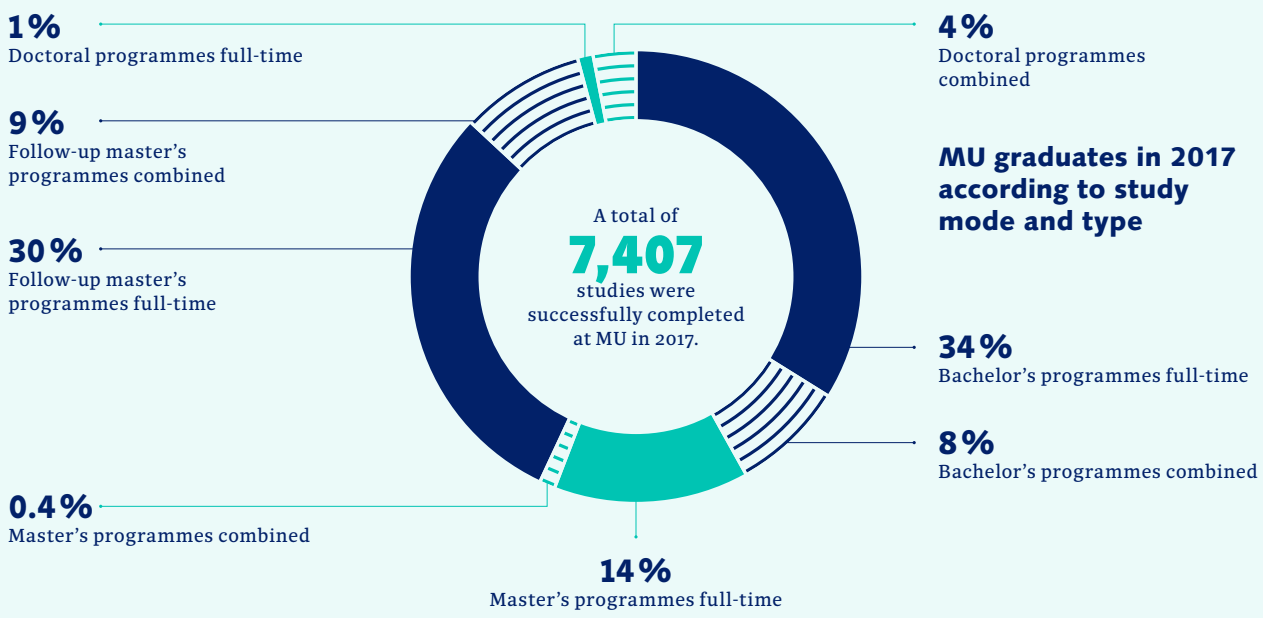
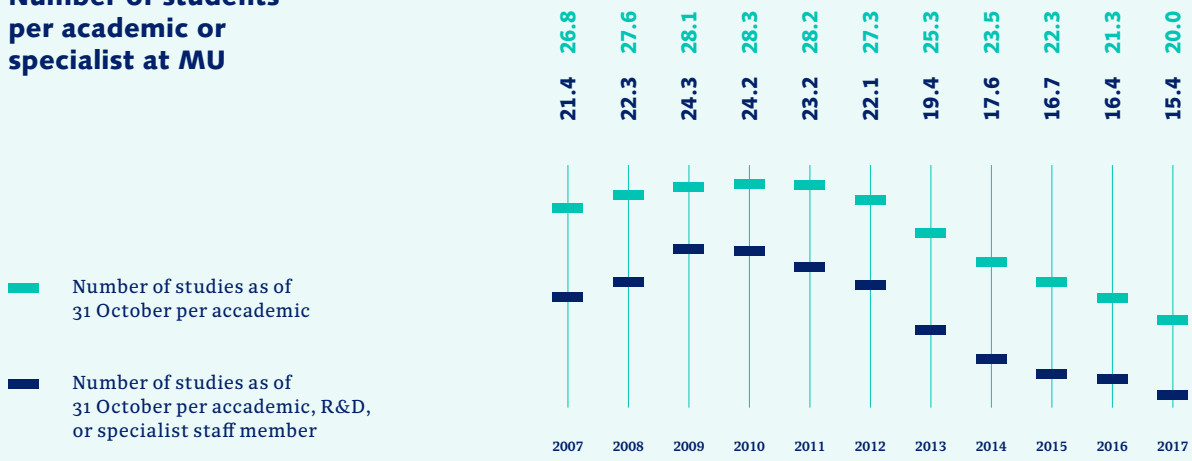
Faculty of Medicine: **OPTIMED—Implementation of New Effective Search Functions**. As part of this project, an advanced tool was integrated into the Optimed portal to improve searches of the descriptions of *General Medicine* courses and make them more efficient.

Faculty of Sports Studies: **Didactics of Selected Athletic Disciplines**. This project created teaching materials for selected athletic disciplines. The project outputs included sample video recordings, the rules for particular sporting events, and teaching unit propositions.

Faculty of Law: **Jurisprudence Repository for Laws Covering Information and Communication Technologies**. The project consists in fifty case-law examples enriched with metadata to be used for a course on current themes and open cases. The repository is open to the general public.

Faculty of Science: **Using Geocaching for Practical Instruction and to Popularize Geology**. The project consisted in testing a new instructional methodology for the geological sciences by creating a geology-themed Multi-Cash in Brno.

### Number of students per academic or specialist at MU



### University-wide student surveys implemented at MU in 2017

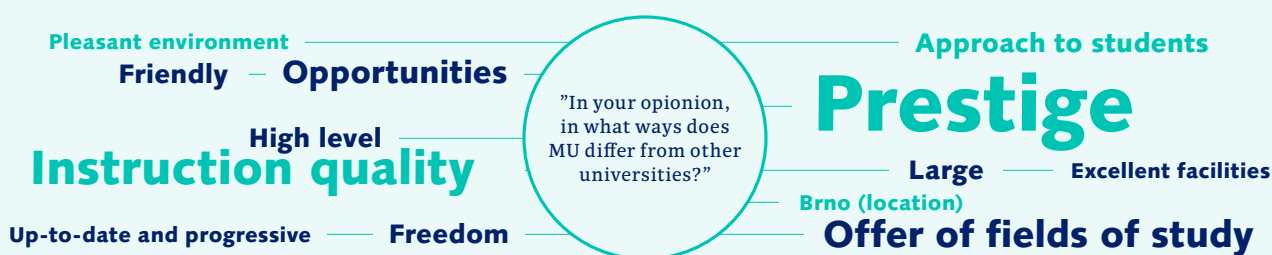
<b>MU applicants</b>  Return rate: <b>20%</b> , <b>4,669</b> respondents	<b>Study Roadmap – 1st wave</b>  Return rate: <b>34%</b> , <b>2,323</b> respondents	<b>Motivation and Expectations of Incoming Master's Students from Other Universities</b>  Return rate: <b>38%</b> , <b>314</b> respondents	<b>Premature Termination of Studies at MU</b>  Return rate: <b>18%</b> , <b>1,150</b> respondents	<b>Completion of Studies at MU – Looking Back and to the Future</b>  Return rate: <b>31%</b> , <b>625</b> respondents
<b>University-wide Course Opinion Poll – Spring 2017</b>  Poll response rate: <b>26%</b> , <b>6,969</b> students		<b>University-wide Course Opinion Poll – Fall 2017</b>  Poll response rate: <b>36%</b> , <b>10,889</b> students		



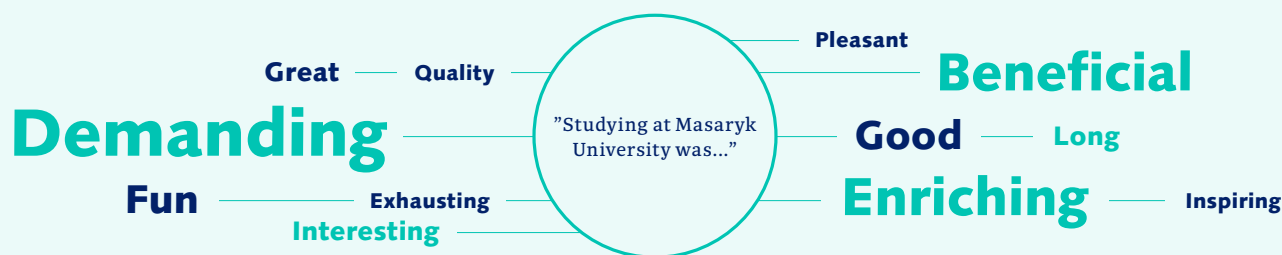
## MU as Perceived by Applicants



## How is MU different from the point of view of first-year students



## MU as perceived by its master's degree graduates





# The Summer School of Slavonic Studies Has Brought the Czech Language to Foreign Students for 50 Years

**In July 2017, the 50th year of the annual Summer School of Slavonic Studies welcomed 135 participants from 36 countries around the world to Masaryk University. Every continent except Antarctica was represented. This traditional event was established in 1967 when, for the first time, people interested in Czech culture came to Brno to study at MU's Faculty of Arts. In the ensuing 50 years, thousands of participants of all cultures and ages have come to the Czech Republic. This 50th year of the Summer School of Slavonic Studies culminated with a meeting of lecturers and teachers of Czech at universities abroad.**

Foto: Participants in the 50th year of the Summer School of Slavonic Studies

Strategic Priority:

# Internationalization in Education

# 3

## 3.1

Foreign Language  
Teaching

## 3.2

Foreign Language Instruction  
and Other Language Centre  
Activities

## 3.3

The Implementation  
of Foreign Language  
Degree Programmes

## 3.4

Summer Schools  
with Foreign Student  
Participation

## 3.5

Foreign Collaboration and  
Mobility Programmes

# 3.1

## Foreign Language Teaching

In 2017, 63 foreign-language courses were either launched or innovated to complement the selection of foreign-language courses that were already being offered. Some examples:

The Faculty of Law organized the interdisciplinary course ***The Twilight of Constitutionalism***, combining the viewpoints of constitutional law, political theory, and history. The Faculty of Science offered a new course entitled ***Introduction to Biostatistics in English***, and the Faculty of Informatics launched a ***Data Quality Management Seminar***. Both these courses are available to all university students.

The Faculty of Education began to offer all common core subjects in the teaching degree programme in English. In addition, the faculty offered other courses that were open to all students of the university: ***Edupreneurship, Effective Educational Communication; Alternative and Innovative Education; Education in a Diverse Society***, as well as ***Teaching Practice and Reflection***, which offers internships to foreign students.

At the Faculty of Arts, instruction in English was supported mostly in mandatory non-philology courses. The faculty launched 10 courses open to non-art majors on topics ranging from theatre (***Irish Drama and Theatre, and Shakespeare's Moral Philosophy in Macbeth and Othello***) to culture and literature, to Russian and Arabic culture, to history and politics (e.g., ***Czech Queer History; Chinese Society and NGOs, Treasures of Pilgrim Centres***).

The Faculty of Economics and Administration offers a large number of courses in English. In addition to the standard economics courses, the faculty taught ***Financial Mathematics, Environmental Economy and Sustainable Development***, and ***Introduction to Public Policies*** in English.

The Faculty of Social Studies also offers a broad range of courses with an English option. In 2017 these included ***From Journalism to Fake News, Peace Economics***, and ***Sport Psychology***. The faculty also organized the second year of ***Israel and the Politics of Innovation: the Start-up Nation in International Perspective***, a course open to master's degree students from all nine MU faculties.

In 2017, the Faculty of Sports Studies launched the following courses: ***Entrepreneurship and Innovation in Sport, The Theory and Practice of Personal Safety***, and ***Conditioning Exercises***.

Of the many courses taught as part of the degree program in English, the Faculty of Medicine offers some courses to students not in the degree program. These include ***Academic Writing***, and ***Practical Skills in Acute Patient Management***.

The internal grant scheme organized by the Masaryk University Development Fund targets a number of thematic areas, among them projects aimed at **reinforcing instruction in foreign languages or the language competencies of academic staff**. These projects target the preparation of study materials or the presentation of guest lectures by foreign academics within courses. Selected projects include:

The ***Flexible Spanish to Support MU Internationalization (LC)*** project produced output in the form of updated syllabuses for seven Spanish and expanded access to study materials using the LC's Virtual Study Room interface.

***Private International Law and Intellectual Property Rights*** is a project that enabled the FLaw to expand the coverage of its course syllabus in the areas of international private law and intellectual property law. Both Czech and foreign experts took part in the instruction.

A FSS project entitled ***The Development and Application of Methodological Knowledge for Doctoral Students*** gave rise to three courses focusing on advanced quantitative data analysis methods that were presented by leading foreign researchers in English.

The FEd implemented ***Practical Russian Morphology***. As part of the project, interactive course outlines were created that allow students to practice specialized linguistic terminology in three languages: Russian, Czech, and English.

The main benefit of the project ***Innovation of the Praktische und technische Aspekte des Übersetzens*** course at the FA was a special course taught in conjunction with professional practitioners that focused on certified translation and interpreting, dictionary creation, and proofreading.

At the FEA, an entirely new course taught in English was launched as part of the ***Civil Society, Economy and the State*** project. The course is designed for students of the social sciences, law, and the humanities.

A project at the FI implemented new courses: ***Numerical Methods and Computational Geometry*** taught in English.

At the FSpS, the project ***Innovation in the Teaching of Selected FSpS Courses by Including Hormonal Yoga*** produced Body&Mind multimedia materials in Czech and in English.

The FMed project ***Translation of Special Portions of the Bachelor's Degree Pharmacology Textbook into English*** resulted in the creation of comprehensive study materials that are now available to students in the IS.

The FSci implemented the ***English Version of Study Materials for the Time Series course*** project in close collaboration with the Technical University of Crete, a partner university.

## 3.2

### Foreign Language Instruction and Other Language Centre Activities

As **the largest language centre of its kind** in the CR, the **MU Language Centre (LC)** has long played a key role in internationalisation and in expanding the language skills of students and staff. In 2017, the LC offered flexible language instruction covering academic, specialist, and targeted foreign language use **for more than 17,000 students** of all MU faculties.

In addition to traditional language classes, students and employees were offered courses on academic writing, presentation skills, intercultural communication, and soft language competencies. E-Learning and video conferences were utilized to support language development and to create space for encounters among students and academics from universities abroad. At the same time, the use of **foreign students as teaching assistants in English, Russian, French, Spanish, and German language courses** was expanded. Foreign students were also able to take courses in Czech as a Foreign Language. 71 students completed an elective seminar entitled **Colourful Czech for Foreigners**, while at the Faculty of Medicine, 1,045 students took part in Czech language courses.

**The LC also takes a hand in MU staff members' development.** As part of the MUNI 4.0 project, the LC provides support for academic staff who teach specialized courses in English. In 2017, 95 MU academics honed their teaching and language skills at the LC in regular language courses, by observation of the courses they teach, and through consultations.

The LC also organized a number of commercial courses that helped MU students and staff as well as the general public develop knowledge and skills in English, Spanish, and French.

In 2017, the Teiresiás Centre offered **English courses to hearing-impaired students**. 2017 also saw courses initiated in academic writing in Czech and English for students with specific learning disabilities. Students in all fields of study may take part in a **Czech sign language course**.

The LC is an active member of international professional organizations (CASAJC, CercleS, IATEFL, and EULETA) as well as of the informal Wulkow Group (a group of directors of language centres based at leading European universities), and the Fiesole Group (a group of universities that offer language support to postdoctoral researchers of excellence). These memberships enabled the university to **significantly expand its international collaboration network**. As a result, in September 2017 MU hosted a prestigious two-day international workshop called *Enhancement of Writing Skills in Legal Contexts*, organized for EULETA, the European Legal English Teachers' Association.

## 3.3

### The Implementation of Foreign Language Degree Programmes

Foreign language instruction at MU takes place within independent degree programmes, as well as collaboratively with institutions abroad in the form of joint and double-degree programmes.

Degree programmes taught in English at the **Faculty of Social Studies** have long had an outstanding reputation. They consist of programmes related to security, international relationships, and sociology. In 2017, two new master's programmes were added: *Conflict and Democracy Studies*, and *Public Policy and Human Resources*. Meantime, a bachelor's programme in *International Relations and European Studies* taught in English was also introduced. Three joint master's programmes feature international collaboration. One is a joint programme organized by four V4 universities entitled *Europe from the Visegrad Perspective*.

The **Faculty of Economics and Administration** also emphasizes foreign-language instruction and offers bachelor's programmes in English: *Economics, Economic Policy, Public Economics and Administration, Regional Development and Tourism, Business Management, and Finance*. In 2017, the faculty expanded its offering of foreign-language programmes with the inclusion of a follow-up master's programme. In collaboration with universities abroad, the faculty implements a total of **5 double-degree programmes**.

**The Faculty of Medicine** has accredited English-language degree programmes in *General Medicine, Dentistry, and Physiotherapy*. In addition, it offers an English-language degree programme in *Optometry*.

At the **Faculty of Science**, most foreign-language degree programmes are taught at the doctoral level. The faculty also offers a bachelor's programme in *Geology* and a follow-up master's degree in *Biochemistry* in English.

In addition to a broad range of philological fields, the **Faculty of Arts** has since 2016 offered a foreign-language programme entitled *Prehistoric Archaeology of the Near East*. The faculty also implements three double-degree programmes.

**The Faculty of Education** offers its *Special Pedagogy* programme in English as well as German. Other foreign language programmes include English Language Teaching/Teacher Training.

**The Faculty of Informatics** offers three follow-up master's degree programmes in *Information Technology Security, Embedded Systems, and Service Science, Management and Engineering*.

At the **Faculty of Sports Studies**, students may study *Applied Kinesiology* in English in a follow-up master's programme. **The Faculty of Science** offers several doctoral programs in English.

## 3.4

### Summer Schools with Foreign Student Participation

Summer schools are a popular way to invite foreign students from around the world to Masaryk University and at the same time provide Czech students with a full-fledged international environment. Despite the label, MU Summer Schools are held throughout the year under the auspices of the Centre for International Cooperation, the Language Centre, and the individual faculties.

**The Centre for International Cooperation** organized a total of 5 summer schools in 2017. The first was entitled *International Law and Human Rights*. 24 students from Australia attended and one from New Zealand. The Centre also organized two summer schools in collaboration with foreign universities. A summer school entitled *Business in Europe: Strategy in the European Context* took place with 29 students from the University of Toronto participating. 24 students from Pennsylvania State University arrived to take part in a summer school entitled *Global Perspectives: Media, Communication, Culture*. Then another summer school session—*World in Transition and Central European Transformation*—welcomed 30 students. In early July, the Centre organized a three-week summer school on *International Relations and Threats to Global Security* for 25 students. In all, 112 foreign students took part in summer schools organized by the Centre.

**The Language Centre organized four summer schools** for 53 participants from seven countries. The third year of the *Academic Skills in English* summer school focused on academic staff, who were given a comprehensive look at English as an instructional medium. A two-week summer school session entitled *Speaking and Writing in English for University Study* allowed students from the AIEN Institute of Shanghai Ocean University to practise their academic communication skills. This course for Chinese students was followed by a second four-week *English for University Study Summer School* led by US lecturers. The 2017 autumn semester opened with an intensive week-long *Study Skills in English* course that targeted both Czech and foreign students who wished to expand and deepen their study skills in English before the start of the new semester.

Other summer schools were organized by individual faculties; selected examples are presented below. The **Faculty of Education** organized the first year of a summer school entitled *Effective Practices for Increased Inclusion in Schools*. It targeted teachers, teacher assistants, academic staff, students, and NGO activists as well as anyone interested in inclusion in the schools. As part of the summer school, the Faculty of Education hosted highly renowned experts from the University of Minnesota.

In August 2017, the Department of International Relations and European Studies at the **Faculty of Social Studies**, working with project partners, organized the 6<sup>th</sup> year of the international *Energy Security Summer School*. The main theme revolved around the oil, gas, and electric supply infrastructure in Europe. Lecturers from the Czech Republic and abroad lectured on this theme that resonates especially in the countries of Central and Eastern Europe.

Another regular summer school, this one conceived as a meeting of foreign experts, is organized by the CBIA (Centre for Biomedical Image Analysis), operating under the **Faculty of Informatics**. In 2017, the school took place in early September and was entitled *Advanced Methods in Biomedical Image Analysis*.

At the **Faculty of Arts**, the 50<sup>th</sup> year of the *Summer School of Slavonic Studies* and the second year of *Central Europe: A Birthplace of Modernity* were held. Both events attract foreign participants from around the globe. In Josefov u Jaromere, the first year of an international summer school entitled *Politics and Aesthetics of the Common: Cultural Performances and the Public Sphere—An International Interdisciplinary Workshop* took place in August. The faculty also helped organize the *Taiwan Summer School in Learning Chinese* in Taipei for 14 Czech and 13 Taiwanese students.

From 4 June until 9 July, students had the opportunity to take part in the *Summer Lab Research Internship*. Four US students enrolled in this summer traineeship at Masaryk University laboratories organized by the **Faculty of Science**, receiving ten credits for their participation. The RECETOX Centre at the Faculty of Science hosted students from every continent for the 13<sup>th</sup> year of the international *Summer School on Toxic Substances in the Environment*.

In 2017, the **Faculty of Law** also organized the 6<sup>th</sup> year of the *Autumn School of Legal Writing and Related Global Legal Skills 2017*, offering participants the chance to improve and enrich their academic English skills and to acquaint themselves with the basic procedures and principles of academic work. The faculty organized the school in collaboration with Universität Wien, The John Marshall Law School (Chicago, USA), the European Academy of Legal Theory, and Goethe-Universität.

Masaryk University also takes part in organizing the **ICC International Summer School for Visually Impaired Secondary School Students**. In 2017, the school was held in Leuven, Belgium.

## 3.5

### Foreign Collaboration and Mobility Programmes

In 2017, Masaryk University sent a total of **1,938 students abroad**, 76% of whom left for study or work experience abroad under the European Union's Erasmus+ programme. This "European" version of Erasmus+ paved the way for 1165 students to study outside the Czech Republic. As part of the "World" Erasmus+ ICM programme, **27 students left for countries outside the EU**. Destinations included Canada, Bosnia-Herzegovina, and Israel. **220 undergraduates and 57 graduate students took part in work traineeships in Europe under Erasmus+**. Erasmus+ students most often headed for Germany, the UK, Spain, France, and Austria.

Complementing Erasmus+, MU awarded 427 students scholarships to study abroad in 2017, with funding from the internal university development project *Support for MU Student International Mobility*. **112 students left for study at partner universities or under the ISEP programme**. The most frequent destinations included Japan (23), the USA (19), China (14), Hong Kong (9), Russia (8), Canada (7), and Australia (6). Under partnership agreements concluded by the individual faculties, 174 students travelled abroad, and 22 more studied under intergovernmental agreements. A further 119 students (called *freemovers*) travelled abroad without being backed by any institutional agreement.

The university also provided repeat support during the year for 36 students on brief mobility grants covering trips of up to 28 days.

In November 2017, the MU Centre for International Cooperation organized a three-day event called *Keep Moving* to motivate students and let them know about their study and work experience options abroad. The Centre also offers students the opportunity for cultural training before departure.

Masaryk University welcomed a total **1,295 foreign students** in 2017, most arriving under the Erasmus+ programme. 695 of those students—most from Spain, Poland, France, Italy, Turkey, and Portugal—were part of the "European" Erasmus+ programme. A further 154 came as part of the "World" Erasmus+ ICM programme, with the most frequent points of origin being Ukraine, Israel, Bosnia-Herzegovina, Albania, Russia, and Kosovo. Under ISEP, **132 students** came to MU. Most were from the USA, with a further 194 studying under **inter-faculty agreements**. 112 foreign students took part in summer schools organized by the Centre for International Cooperation.

Before the start of each semester, **Orientation Week** is held for incoming students. Designed to aid their initial adaptation to the MU environment and the city of Brno, the event hosted more than 750 foreign students in 2017.

MU's students weren't the only ones to travel abroad in 2017. **1,582 MU academics and experts took part in instruction, training, and other academic events that took them abroad for periods of at least 5 days**. In the other direction of travel, 570 foreign university employees including visiting professors stayed at MU for more than 5 days as part of the *Support for MU Internationalization* programme.

In 2017, the Centre for International Cooperation organized the 9<sup>th</sup> year of the international **MUST Week** (*Masaryk University Staff Training Week*) for foreign administrative staff, this year involving 94 employees of faculty international offices, librarians, student special needs support workers, and non-academic staff from countries outside the EU who received training in international collaboration and marketing.

2017 saw Masaryk University conclude **79 new contracts under Erasmus+ Europe and 57 contracts under Erasmus+ ICM**. A further 15 contracts were concluded around the university, most for MU-funded direct student exchanges.

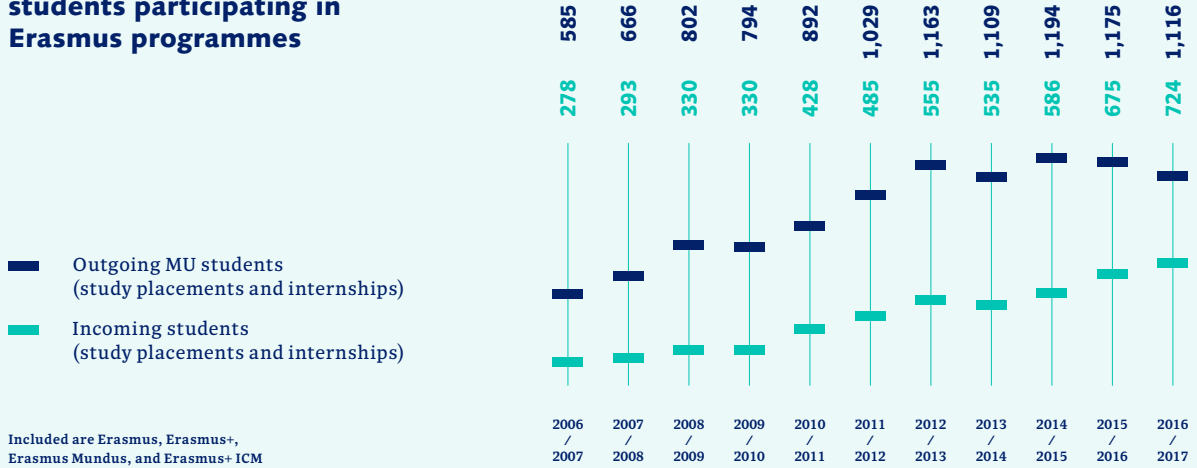
In 2017, MU's membership in the Utrecht Network allowed it to expand collaboration with Brazilian universities in the *REARI – RJ Brazilian Universities Network*. In addition, MU signed a strategic partnership agreement with *The Hague University of Applied Sciences* enabling closer contact with four universities: Madrid, Derby, Tampere, and Cagliari.

In November 2017, MU hosted the annual *Partner University Days* event, this time in conjunction with Vratislav University. Lectures in English were given at four MU faculties.

**Activities funded by the Israeli government as part of the Theodor Herzl Distinguished Chair** programme continued in 2017. Three Israeli academics came to MU and the international conference *Israel 1947–1967: Creating the Country* was organized. The program once again contributed to a Faculty of Social Studies course entitled *Israel and the Politics of Innovation: The Start-up Nation from an International Perspective*.

MU took part in several events abroad during the year. In April 2017, the university was present for the **Education and Career fair**. As in recent years, the university participated in two fairs that target institutions: *NAFSA* (June) and *EAIE* (September). MU promotional materials were sent to many other global fairs.

## Outgoing and incoming students participating in Erasmus programmes



### 10 most popular study placement and internship destination countries among outgoing MU students

- Germany
- Great Britain
- France
- Spain
- Austria
- Portugal
- Italy
- Poland
- Slovenia
- Belgium

### 10 most common incoming exchange students' countries of origin

- Spain
- Poland
- France
- Italy
- Turkey
- Portugal
- Slovakia
- Germany
- Croatia
- Greece

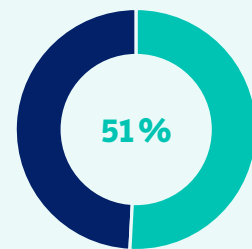
### Internationalization in education at MU



Final theses in English (in non-philological fields of study) defended in 2017



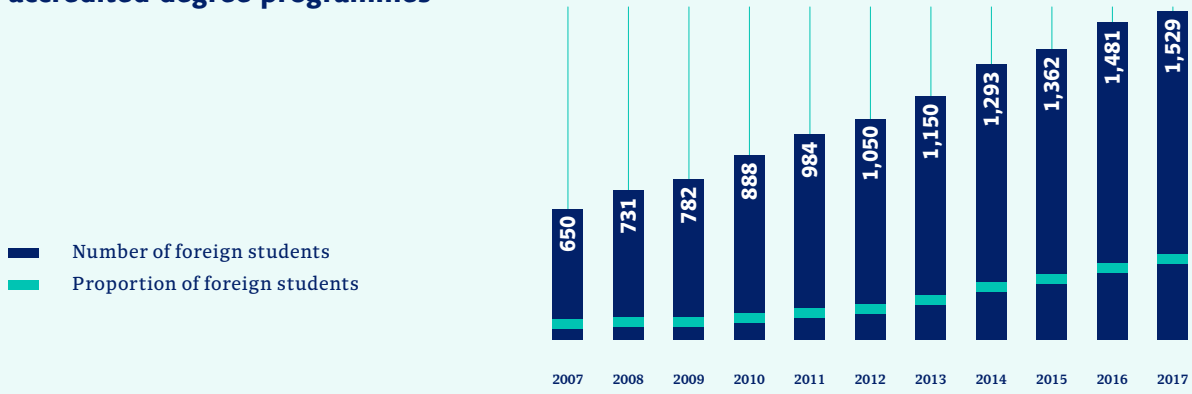
Joint, double or multiple degree programmes implemented in collaboration with foreign universities



Proportion of degree programmes accredited in foreign languages



### Number of foreign students (excluding Slovak citizens) in accredited degree programmes



### Number of Slovak students in accredited degree programmes



### Offer of foreign language courses for students of non-philological fields at MU

- English
- German
- French
- Russian
- Greek

- Spanish
- Portuguese
- Arabic
- Chinese
- Latin



# Faculty of Arts Doctoral Student Discovers Error in History of the Family of Luxembourg

The Luxembourg royal family, of which the best-known Czech ruler Charles IV was a member, has attracted bountiful attention from historians, and it might thus seem that we know all there is to know about them. But Ondrej Schmidt, a doctoral student in the Department of Auxiliary Historical Sciences and Archive Studies, has shown that this is not the case. He uncovered an error in the way the lives of two of Charles's nephews have been interpreted. Such findings come only rarely anymore; Schmidt was able to discern connections within data already given in published sources. He detailed his results in the book *John of Moravia. A Forgotten Member of the Luxembourg Family on the Throne of Aquileia*.

Foto: Ondrej Schmidt, doctoral student at the Faculty of Arts

**Strategic Priority:**

# **Individualized Doctoral Programmes**

# **4**

## **4.1**

**University-Wide  
Activities for Doctoral  
Students and Supervisors**

## **4.2**

**Support Activities for  
Doctoral Candidates  
Implemented by Faculties**

## **4.3**

**Awards for Talented Doctoral  
Candidates and Doctoral Degree  
Programme Graduates**

## University-Wide Activities for Doctoral Students and Supervisors

Masaryk University currently offers **60 doctoral degree programmes in over 140 fields of study**, with approximately 3,000 doctoral students enrolled. Because the accreditation for about one third of MU fields of study is set to run out in 2019, the major focus in 2017 was placed on preparing new accreditation materials to be submitted in 2018. The initial debate on how doctoral programmes should be conceived and implemented in the future was conducted across the university and resulted in several model proposals that explored how degree programmes might be organized into large and small units that could include specializations. From there, the discussion moved to individual faculties and doctoral boards.

Because the university prepares and conducts its doctoral degree programmes in conjunction with the **Czech Academy of Sciences**, a discussion also arose in 2017 about the current status of collaboration, which is partly based on a *Collaboration Agreement* signed in 1999. In many respects, the agreement was functional, but both parties nevertheless decided to revise the existing arrangements. Among the changes were a proposed new *Memorandum, Doctoral Degree Programme Collaboration Agreement*, and a *Student Exchange Agreement*. Among other things, the university pledged to list the Academy of Sciences as a collaborating institution on student diplomas in jointly accredited doctoral degree programmes.

The university creates many tools to support quality doctoral degree programmes. In Spring Semester 2017, the **PREFEKT course** provided doctoral candidates at all MU faculties with essential theoretical foundations and practical skills for project management. Acquired knowledge and skills were subsequently tested using grant applications as examples (Horizon 2020, International Visegrad Fund, etc.).

A **summer school for doctoral students** at University Centre Telc was held in August 2017 that covered pedagogical skills and self-promotion and featured an academic writing seminar.

Doctoral students are encouraged to take part in research projects and to join large research teams. The creative potential of all students—particularly doctoral students—is supported by means of the **Student Project Support Competition**. In 2017, the contest was subsidised in the amount of almost CZK 135,503,000, covering particular university research projects and student academic conferences. In 2017, funds went to support **171 projects, 16 of which were student academic conferences**.

Key activities supporting interdisciplinary included the **Seminar Series, a year-round lecture cycle featuring foreign lecturers**, divided into the *Life Sciences Seminar Series* and the *Seminar Series in the Social Sciences, Humanities, and Computer Science*. 19 lectures took place in all in 2017, with an average of more than 200 attendees per lecture. In addition to the seminar series, MU hosts the specialist **Mendel Lectures**, a series that features **Nobel Prize Laureates**.

MU's key partner in organizing lecture series, courses, and seminars for doctoral students, has traditionally been **The Academy of Sciences of the Czech Republic**. The Association of Moravian Institutes of the Academy, in particular, made it possible for prominent figures to be invited to MU in 2017. Because lectures are put on for all doctoral candidates throughout the university, discussions are interdisciplinary and opportunities for networking abound.

Masaryk University also takes part in the **Marie Skłodowska-Curie Innovative Training Networks** programme, whose aim is to train a new generation of creative, innovative, young scientists. These grants are designated for the support of research training networks and doctoral programmes.

The **CEITEC PhD School** organized an international doctoral degree programme called Life Sciences, based upon the principles of innovative doctoral programme design. The emphasis is placed on scientific excellence, attractive institutional facilities, acquaintance with industry and other relevant employment sectors, and the acquisition of transferable skills. In 2017, more than 100 applicants from 15 countries expressed interest in studying at CEITEC MU. The Life Science programme graduated its first student in November 2017.

## 4.2

### Support Activities for Doctoral Candidates Implemented by Faculties

Masaryk University faculties offer support for post-graduate students in various forms: by organizing doctoral seminars and conferences, providing publication grants, and supporting student mobilities abroad.

The Faculty of Social Studies organizes an annual competition for its **EDIS Postdoctoral Publication Grant**. The aim is to support publication by young scholars and to present the results obtained from dissertations. To heighten the quality of doctoral programmes, a **mandatory internship abroad was introduced** for PhD students. In addition, the faculty organized the **International Interdisciplinary Doctoral Seminar EUSOC**.

The Faculty of Law presented the 11<sup>th</sup> year of its international conference **COFOLA** for doctoral students and young legal scholars. Together with the University of Zagreb, the Faculty of Sports Studies co-organized an international kinanthropological conference entitled **Sport and the Quality of Life** that included a **special section for PhD students**.

The Faculty of Education prepared a **series of methodology workshops** at which researchers presented and discussed developing methodological approaches.

The Faculty of Science concluded three new contracts for so-called **Cotutelle agreement**. International mobility opportunities were broadened by means of a mobility scholarship scheme. At the same time, foreign scholars came to present lectures as part of the **Innovation Lectures** series, with 50 guest lecturers appearing in 2017.

At the Faculty of Arts, two **cotutelle** doctoral theses were defended, and three new contracts for 2018 were concluded. The faculty supported the following **international doctoral seminars**: *International Graduation Collegium of Historians*, and *XXXVI Summer University*, organized by the *Jan Hus Educational Foundation* in Telc.

The Faculty of Economics and Administration offers lectures to its PhD students by foreign experts who come to take part in **Masaryk University Economic Seminars**. There is also the **Young Economists' Meeting in Brno**, an annual conference for doctoral students and postdocs focused on experimental economics and the economics of labour.

The Faculty of Informatics provides support for post-graduate students using a **poster contest**. The PhD programmes at the faculty also include the MEMICS international doctoral workshop (*Mathematical and Engineering Methods in Computer Science*). A programme that has proven its worth at the faculty is a **scholarship to support talented doctoral students**. It is used to create a limited number of positions that pay better than regular PhD positions for the best new doctoral candidates.

## 4.3

### Awards for Talented Doctoral Candidates and Doctoral Degree Programme Graduates

Masaryk University recognizes the achievements of its doctoral candidates every year with the **Rector's Awards**, which are divided into two categories: *Best Students in Doctoral Programs* and *Outstanding Doctoral Dissertation*. In 2017, six doctoral students received the award.

Twenty Brno doctoral students received support from the **Brno PhD Talent** programme announced by the South Moravian Centre for International Mobility. **14 were students at Masaryk University**. Most students came from the Faculty of Science, Faculty of Medicine, or Faculty of Informatics. Each received a grant of CZK 300,000 for their three-year research project.

In 2017, the prestigious **Ceska Hlava award** for science, research, and innovation (the *Doctorandus Prize*) went to Karel Skubnik from the Faculty of Science, who conducts research on the Deformed Wing Virus. This young scientist also accepted an **award for excellent doctoral degree programme students and graduates awarded by MEYS**. Another winner of the award was Pavlina Janovska from the Faculty of Science, who studies signals that impact the behaviour of white cells in the body.

Jana Kockova ranked first in the competition for the **Jacques Derrida Prize for Social Sciences and Humanities**, awarded in collaboration with the French Embassy to the Czech Republic. Second place went to Vaclav Walach. Both students study at the Faculty of Social Studies and focus on urban issues. The **Neuron Impulse grant**, supported by the Neuron Foundation, went in 2017 to Dasa Bohaciakova from the Faculty of Medicine, and Martin Lang, who studied at the Faculty of Arts and is currently at Harvard University.

During the 59<sup>th</sup> year of the *Congress of the American Hematology Association (ASH)*, Zdenka Kosarova received the **ASH Abstract Achievement Award** for young haematologists. Tomas Juza, a doctoral student at the Faculty of Medicine, was awarded a prize in the student section of the **European Congress of Radiology** competition. As part of the prestigious 19<sup>th</sup> *IEEE International Symposium on Multimedia*, Petr Elias from the Faculty of Informatics received a prize in the **Best Student Paper** category.

Katerina Lojdova's article entitled *The End of Academic Freedom in the Era of Neoliberalism?* was granted an **award by the Czech Educational Research Association** for a remarkable research publication in the category of Foreign Language Publications. Ondrej Volny, a physician focused on clinical research, received the **Danubius Young Scientist Award** for excellent achievement in researching stroke and brain imaging.

## MU as perceived by its doctoral degree graduates



### Seminar Series in 2017

#### Life Sciences lecturers

Martin Blackledge, Institut de Biologie Structurale, CNRS, Grenoble, France

Julius Brennecke, IMBA, Austrian Academy of Sciences, Austria

Thomas Carell, Department of Chemie, LMU Munich, Germany

Jeremy Green, King's College, London, UK

Viktor Jirsa, Institut de Neurosciences des Systèmes, Aix-Marseille Université, France

Magda Konarska, Center for New Technologies, Warsaw University, Poland

Julius Lukes, University of South Bohemia, Czech Republic

Thomas Marlovits, IMBA, Austrian Academy of Sciences and University of Vienna, Austria

Axel Mayer, University of Gent, Netherlands

Wolfgang Nentwig, Bern University, Switzerland

Holger Stark, Max Planck Institute for Biophysical chemistry, Munich, Germany

Victor Tybulewicz, Francis Crick Institute, London, UK

Jernej Ule, The Francis Crick Institute and UCL Institute of Neurology, London, UK

Dolf Weijers, Wageningen University, Netherlands

#### Social Sciences, Humanities, and Computer Science lecturers

James Alm, Tulane University, USA

Mojmír Dočekal, Masaryk University, Brno, Czech Republic

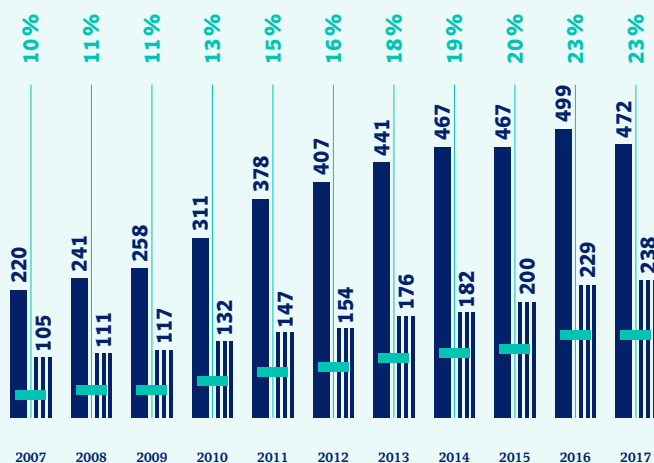
Reuven Gal, Kinneret College on the Sea of Galilee and Institute of Technology, Israel

Juraj Hromkovic, ETH Zurich, Switzerland

Christos Zografos, Pompeu Fabra University in Barcelona, Spain

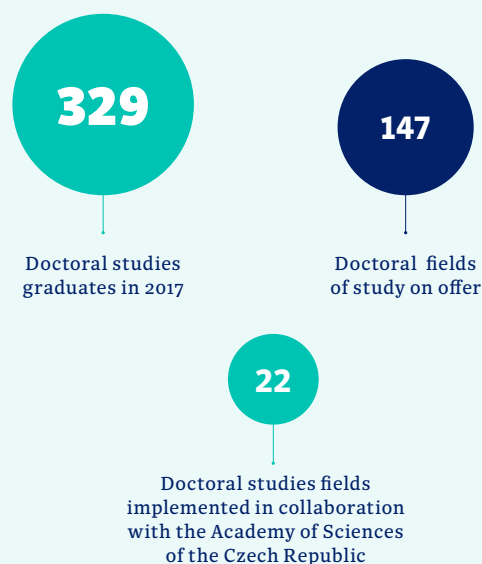
## Number of foreign doctoral studies graduates

- Number of doctoral studies from Slovakia
- ▤ Number of doctoral studies from other foreign countries
- Proportion of foreign doctoral studies (including Slovakia)



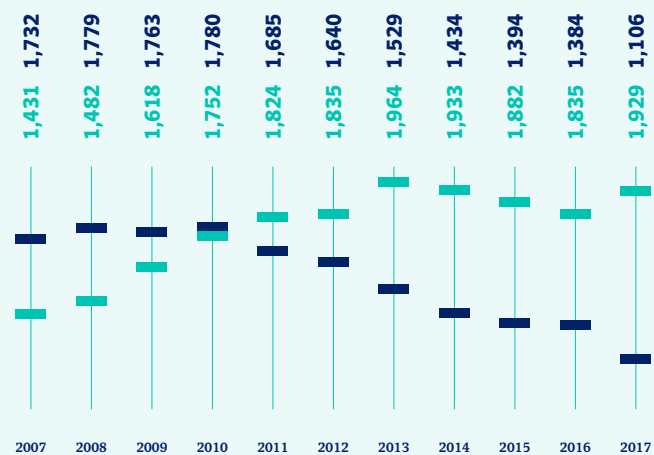
## Top foreign employers of doctoral studies graduates

- Harvard University, USA
- University of Oxford, Great Britain
- Columbia University, USA
- University of California – San Diego, USA
- University of Washington, USA
- University of Toronto, Canada
- Karolinska Institute, Sweden
- Ghent University, Belgium
- University of Iowa, USA
- University of Massachusetts, USA



## Number of doctoral studies graduates at MU

- Combined studies as of 31 October
- Full-time studies as of 31 October





# Masaryk University Scored Well in the European Commission's Teaming Call and Will Support Two Centres for Scientific Excellence

Masaryk University has been highly successful in attracting funding under the Teaming Call of the Horizon 2020 programme for its Centres of Research Excellence. Two of the projects it coordinates were successfully funded, as was another project in which the university is a partner. One of the projects the university coordinated is CETOCOEN Excellence, undertaken at the Research Centre for Toxic Compounds in the Environment (RECETOX) at the Faculty of Science. The second project coordinated by the university is named PASSAGE and is implemented MU's CEITEC research institute.

Foto: Grants supporting excellence in science will go to RECETOX and CEITEC MU



**Strategic Priority:**

# **Research Excellence and Relevance**



## **5.1**

**Masaryk University's  
Scientific Performance**

## **5.2**

**International Research  
Support**

## **5.3**

**Knowledge Transfer and  
Utilization of Research Results**

# 5.1

## Masaryk University's Scientific Performance

According to the Web of Science (WoS), **MU authors published 1,841 academic articles** (Articles, Conference Papers, Reviews) in 2017. The number of publications by MU authors has recently been rising. In addition to publications listed in the Web of Science database, a number of specialized monographs and chapters were published in books released both at home and abroad.

The publications coming out of the university are also increasingly finding their way into prestigious journals. This becomes especially clear when one considers only the top quartile of journals in a given discipline: in 2012, 27% of papers were published in journals in that group; in 2016, the figure was 33%; and in 2017, 39%. Top-ranked journals in which MU authors were published included Science, Nature-affiliated journals, Leukemia, Molecular Cell, Proceedings of the National Academy of Sciences of the United States of America, and Chemical Reviews, among others. WoS statistics show the publication rates of the various disciplines conformed to recent trends. **Disciplines with the greatest number of publications included environmental science, biochemistry, molecular biology, neuroscience, oncology, and ecology.**

The number of publications co-authored by Masaryk University researchers as part of international collaborative efforts also rose in recent years according to WoS. The **share of publications with international co-authors** was at 36% in 2012; by 2016, this figure had risen to **52%**. The greatest number of such publications were done in cooperation with institutions in the US (14%), Germany (12%), Great Britain (9%), Italy (7%), and Slovakia (6.5%). Key foreign institutions that collaborated with MU authors included the University of Cambridge, the Centre National de la Recherche Scientifique, University of London, and Max Planck Society. Inside the Czech Republic, MU scientists most frequently collaborated with the Academy of Sciences of the Czech Republic (15%), Charles University (9%), and the Brno University of Technology (5%).

### SELECTED SCIENTIFIC DISCOVERIES AND ACHIEVEMENTS

#### LINGUISTS ASSEMBLE ONE OF THE MOST EXTENSIVE BODIES OF WORK ON THE CZECH LANGUAGE

Almost two hundred Czech and foreign linguists spent five years preparing the New Encyclopedic Dictionary of Czech. The result is almost 1,600 entries that explain more than 7,000 terms from linguistics as they apply to the Czech language. They include terms from phonetics and lexicology to dialectology and etymology, right up to the latest interdisciplinary fields such as computer linguistics and

sociolinguistics. This collective work by linguists, created at the Department of Czech Language at the Faculty of Arts, has been accessible online at [www.czechency.org](http://www.czechency.org). The extensive dictionary also features audio recordings of Czech dialects and videos demonstrating Czech sign language.

#### SUSCEPTIBILITY TO DEPRESSION IS ALREADY PRESENT AT THE PRENATAL STAGE

Stress experienced by pregnant women may manifest in a greater tendency to depression in their offspring. Highly stressful events in the lives of future mothers, including divorce, the death of their partner, or contemplating an abortion can cause a reduction in the grey matter of children's brains in areas related to the development of depression. This was confirmed by Klara Mareckova, who studies the impact of prenatal stress on brain development in children at CEITEC as part of her Marie Curie Intra-European Fellowship grant. Mareckova followed 130 participants aged 23 and 24, who were participants in the extensive ELSPAC study of pregnancy and childhood.

#### EHMC CONTAINED IN SUNSCREENS MAY DAMAGE DNA

This significant finding was published by RECETOX specialists. The active ingredient ethylhexyl methoxycinnamate, abbreviated EHMC, contained in some sunscreens and other daily care products, is not stable under ultraviolet light, and in its modified form may damage human DNA. EHMC is supposed to offer protection from damaging sunlight, but its molecular spatial organization becomes modified in a way that makes it subject to isomerization. RECETOX scientists determined that a significant genotoxic effect is present: it may damage human DNA, and potentially cause genome mutations that result in serious diseases.

#### AFTER CENTURIES AT REST, BARON TRENCK IS EXHUMED AND X-RAYED

After 268 of uninterrupted rest, the mummy of Baron Frantisek Trenck left the Capuchin Crypt in Brno for the first time ever. The famous baron's remains were moved to University Hospital Brno and scanned in detail. The project is being undertaken jointly by the Museum of the City of Brno, the Capuchin Crypt, Masaryk University, and Bohunice Hospital Brno. Scientists are gradually working on almost forty thousand CT scan images and hundreds of other photographs that are part of the photogrammetric documentation acquired by anthropologists directly in the Capuchin Crypt. The main objective of the project is to answer questions and look for the basis of legends tied to this historical figure.

## 5.2

### International Research Support

As in past years, Masaryk University in 2017 was among the most successful Czech institutions in winning grants under the EU's HORIZON 2020 Framework Programme for Research and Innovation. MU ranked first for volume of funding obtained and second in number of project proposals accepted. In 2017, **twelve new H2020 projects were launched**, six of which came under *Pillar I – Excellence in Science*, two under *Pillar III – Societal Challenges*, four under *Expanding Excellence and Broadening Participation* and *Science with and for Society*, and one under the *Innovative Medicines Initiative (IMI)*. **The total number of approved framework projects** thus reached **53**, with a total budget in excess of **CZK 580 million**. Another substantial achievement was the acceptance of a project under the *Collaborative Awards in Science* call publicized by the **Wellcome Trust**. MU thereby became the **first institution in Central Europe to succeed in this prestigious call**.

In 2017, seven additional projects were launched under the auspices of the **SoMoPro** regional programme, co-funded by EU R&D framework programmes designed to support scientists of excellence coming to the South Moravian region from abroad. MU has had the greatest success of any institution in the region in acquiring SoMoPro projects: **Of the total 72 projects accepted, 50 were implemented at MU**.

In late 2017, the **second meeting of the Masaryk University International Scientific Advisory Board (ISAB MU)** was held. Four internationally recognized experts met after an interval of one year to evaluate the implementation of fourteen recommendations from the preceding year. The Board consists of Prof. Josef Jiricny from the University of Zurich, Prof. Peter Williamson from Cambridge University, Prof. Thomas A. Herzinger from the Institute of Science and Technology Austria, and Prof. Marie-Janine Calic from Ludwig Maximilian University of Munich. Mary O'Connell, a molecular biologist active at MU in the ERA Chair programme since 2014, functions as the board's representative.

The Board was very appreciative of the **progress Masaryk University made in HR issues, and the university's efforts to increase the number of foreign academics**. The Board stressed that the emphasis on quality and internalization should be expanded to include lower academic ranks—assistant professors and postdoctoral students.

The main themes revolved around doctoral students, in particular how to organize selection procedures, research evaluation, and the university's HR policy. According to the board's final report, **the university has overcome many obstacles** that originally seemed insurmountable.

## 5.3

### Knowledge Transfer and Utilization of Research Results

The Technology Transfer Office (TTO), had what was probably its most successful year in 2017 since it was established. In March, a two-year collaboration contract with **Senergos a.s.**, a company operating in the energy sector, was concluded. In addition, there has been promising collaboration **with partners at the J. G. Mendel Polar Station operated by MU**.

The greatest achievement, however, was the conclusion of a collaboration agreement with **Artios Pharma Ltd.** in a joint project aimed at developing a nuclease inhibitor that may have broad potential to treat many kinds of tumours. Artios is funding a research group led by Associate Professors Kamil Paruch of the Faculty of Science and Lumir Krejci of the Faculty of Medicine. If the research moves ahead to the clinical evaluation phase, the entire project is likely to be licensed by one of the major pharmaceutical companies, thereby bringing significant financial benefit to the university.

The TTO continued to **monetize of MU intellectual property**. Revenues from licensing agreements on the use of MU intellectual property amounted to CZK 445,000. Total licensing fees of CZK 1.7 million were contracted.

In accordance with MU's Strategic Plan, the TTO prepared **guidelines for the establishment and operation of MU spin-off companies**. These draft guidelines were presented to university management and the Academic Senate for approval. The TTO also prepared educational materials for new employees on the topic of MU intellectual property.

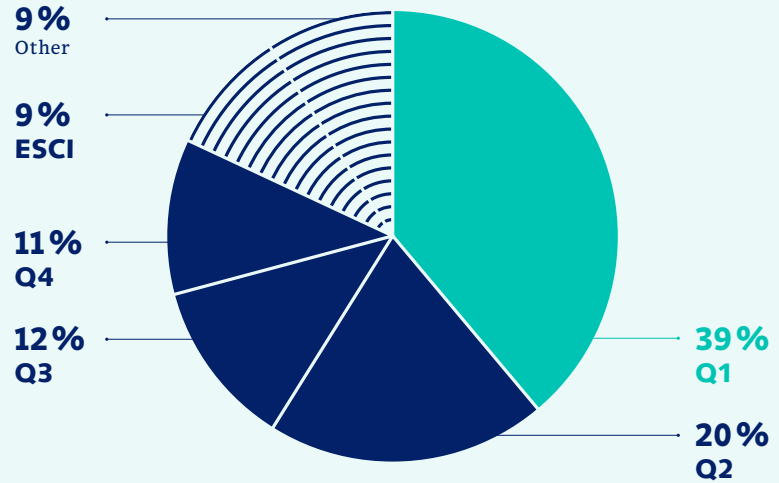
Another focus for the TTO during the year was ongoing implementation of the **TACR GAMA** project to support **promising technology with commercial potential created at MU (Proof of Concept** projects). In 2017, one internal call was publicized, with a total of 11 project applications submitted. Of these, 4 projects were recommended for funding. The TTO allocated almost CZK 5 million to support research of this type.

The TTO also continued its public relations efforts, among other ways by publishing the **INTERFACE newsletter**; organizing the fifth year of **TT Day**, and holding many events for application partners that sparked promising new instances of collaboration. The most significant event organized was the **MU Business Research Forum** in April, which saw approximately 300 people take part. In a trade-fair-like setting, all 9 faculties and 9 other MU units presented opportunities for collaboration.

### Publications published in IF journals by quartile in 2017

Publications according to Web of Science (Article, Review and Proceeding Paper)

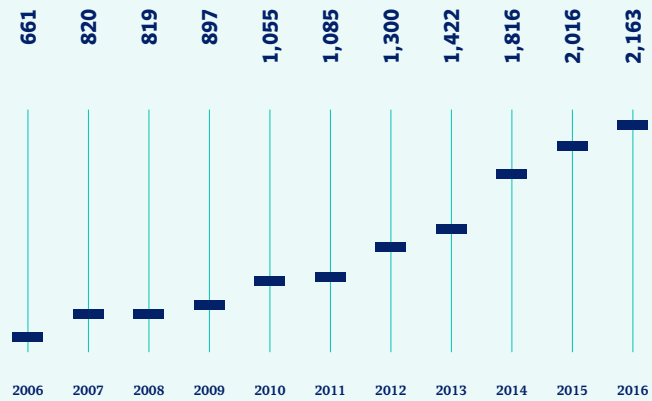
Note: Data for 2017 may not be complete due to Web of Science indexing delay.



### Number of MU publications in the Web of Science database

Number of publications (Article, Review, Proceeding Paper) published in a given year

Note: 2017 data are missing because of Web of Science indexing delay.



### Number of MU publication citations according to the Web of Science

Number of citation sin a given year (Article, Review, Proceeding Paper)

Note: \* Data for 2017 may not be complete due to Web of Science indexing delay.



### Top 10 foreign institutions involved in joint publications with MU authors in 2006–2017 according to most cited results

University of California

University of Toronto

Centre National de la Recherche Scientifique

University of Barcelona

Harvard University

University of Texas

Max Planck Society

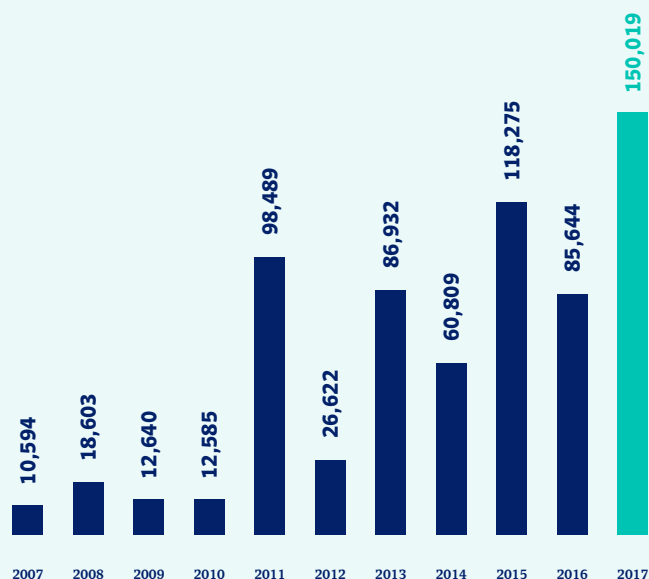
Assistance Publique Hopitaux Paris

Ruprecht Karl University Heidelberg

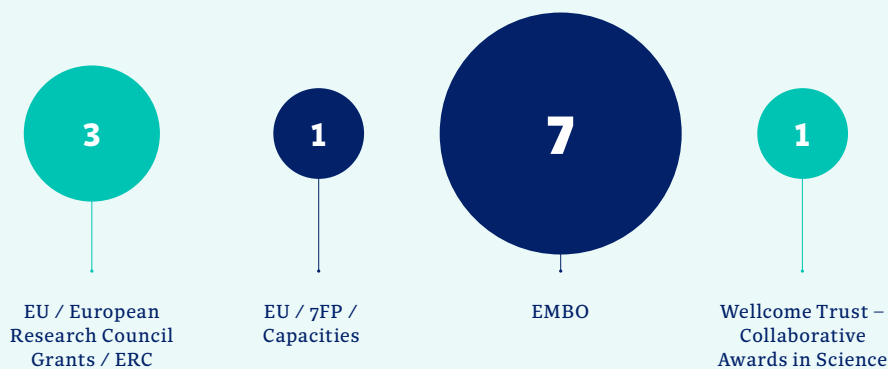
Karolinska Institutet

### Non-investment revenue from EU framework programmes

Non-investment revenue from EU framework programmes (in thousands CZK)



### Prestigious individual grants awarded to MU researchers (investigation launched 2013–2017)



A man with short dark hair and a light beard, wearing a white lab coat, is sitting in a laboratory. He is looking directly at the camera. The background is filled with laboratory equipment, including shelves with bottles, pipettes, and a workbench with a scale and other instruments. The lighting is bright, and the overall tone is professional and scientific.

## MU Scientist first in CR to get collaborative grant from prestigious Wellcome Trust

The prestigious grant, awarded by British Wellcome Trust, one of the largest private foundations supporting science, went to Lumir Krejci, an MU molecular biologist. He is the first scientist in the Czech Republic to receive the grant. The grant money will go to cover research into molecular mechanisms that cause tumour-based diseases like breast and prostate cancer. It will be conducted by Krejci and his co-researchers from Great Britain and the USA. A total amount of CZK 26 million was awarded to the team for a five-year period.

Foto: Lumir Krejci, molecular biologist, holder of the Wellcome Trust grants

**Strategic Priority:**

# **Research Efficiency and a Stimulating Research Environment**



**6.1**

**University-Wide Support  
Services for Creative Work**

**6.2**

**Support for Qualification Growth and  
Academics' Performance**

# 6.1

## University-Wide Support Services for Creative Work

Excellence in research is supported by Masaryk University through internal **MU Grant Agency projects**. In 2017, MU held its *Sixth Annual interdisciplinary research project competition*—Category G—with four additional projects selected for support. Also successfully implemented was a program to support the preparation of international grant applications by applicants seeking funding from prestigious international grants (Category F). In 2017, three new calls under the *E-Support to Improve the Excellence of Results* were publicized. CZK 6,891,000 went to support a total of 17 applications. A new GA MU Research Support Programme category was introduced in 2017, namely category **I - MUNI Award in Science and Humanities** that **targets newly incoming scientists of excellence**—ERC holders—or ERC applicants with excellent evaluations.

A series of seminars, presentations, training sessions, and individual consultations held throughout the year, were designed to boost MU's success in national and international grant competitions. A particularly popular event was the annual **Grants Week**, a multi-day event that provides scholars and doctoral candidates with up-to-date information on grant opportunities, as well as practical information on how to build a successful project proposal. Seventeen specialists spent three days lecturing to nearly 200 participants. The entire Grants Week programme took place in English.

An online version of newcomer training that targets incoming scientists to provide them with an introduction to national and international grant programmes and the MU project support system has been made available. Several information events specifically focused on H2020 were held. They included a presentation of ongoing H2020 projects at the **Research Funding Academy** event, along with training in the administrative and financial aspects of H2020 and open access to data and intellectual property. Another noteworthy event was a meeting sponsored by the **Utrecht Network**: a three-day series of workshops and lectures with the participation of 28 project managers from 13 countries.

**MU has traditionally supported research through bibliometric analyses.** Since 2014, when the InCites analytical tool from Clarivate Analytics (formerly Thomson Reuters) was acquired for MU, the significance and degree to which bibliometry has been used in various academic contexts has continued to rise. Bibliometry is a highly specialized field requiring dedicated expertise. MU scholars' engagement in international communities via conferences and publications and continuous bibliometric education led to the **establishment of the Centre**

**for Scientometric Support.** The Centre is an expression of the university's effort to provide comprehensive publication analysis services, and to support faculties' efforts in academic publication and the evaluation of research. Its objective is to provide for clear responsibility in the use of metrics at MU. In using this methodology, MU adheres to the practice of the Leiden Manifesto and the San Francisco Declaration.

The Rector's Research Office initiated preparation of a document entitled **Good Practice in Scholarly Publishing**, which expresses MU's approach to publication etiquette. It is one of the first comprehensive documents applicable across the institution. As part of a freely related series of educative documents entitled *Good Practice in Research*, the document was a valuable addition to the existing university policies on predatory publishers and journals, and on the use of bibliometric indicators. All these documents were presented at [vedavyzkum.cz](http://vedavyzkum.cz), [universitas.cz](http://universitas.cz), and [online.muni.cz](http://online.muni.cz), etc.

Bibliometric analyses conducted at the Rector's Research Office are used in both regular and ad hoc modes. A regular element in bibliometric support consists of faculty **support analyses used for annual evaluations**. Bibliometric analyses based on a combination of indicators provide a **comprehensive view of the production and popularity of individual MU disciplines and units** that, until recently, had been assessed only by means of scoring algorithms used in national evaluations.

The objectives to be achieved using bibliographic services included interconnection to other specific content at MU. The Rector's Research Office initiated the **interconnection of bibliometric analyses and requirements placed on applicants for habilitation and professorship procedures**. The Research Office also proposed that applicants' publications be evaluated on the basis of multiple criteria, something inspired by Universität Wien. In some cases, a list of applicant citations may—under certain circumstances, and when the number of citations is sufficient—be replaced by a bibliometric analysis. In the period from October 2017 to the end of the year, ten applicants requested that Research Office staff conduct bibliometric analyses.

In addition to these regular tasks, the Rector's Research Office also creates highly robust ad hoc analyses adapted to the needs of the unit in question (for instance, CEITEC in 2017). Another potential of bibliometric support lies in the **study of publication patterns in individual disciplines, and support for individual units in preparing publication strategies**.



# 6.2

## Support for Qualification Growth and Academics' Performance

Support is also provided for enhancing qualifications, academic performance, and academic publication quality on the level of individual faculties. **Internal programmes** covered from institutional support funds and other faculty funds are publicized to support the establishment of academic teams, habilitation projects, and professorship proceedings in various phases of preparation, as well as **journal publication, and the internationalisation of publications**. Young researchers are also often provided with targeted support. Examples include the following:

**The Faculty of Education** modified its **programme for foreign-language publication support programme** during the year. Academics made use of the subsidy programme to support their preparation of dozens of journal articles, with priority given to articles in English. A new *Strategy for Publication Support at the Faculty of Education* was prepared in 2017, with implementation scheduled for 2018. The strategy is designed to support authors producing quality publications with good prospects of getting published internationally. It includes the following four support programmes: subsidies for publications in renowned international journals registered in the WoS or Scopus databases, subsidies for conference proceedings sent to the WoS or Scopus databases, subsidies for the publication of monographs, with a special category for monographs that are highly specialized and of very high quality.

**The Faculty of Science** continued to provide **support for the qualification processes** of academic staff with individual **stipends** of CZK 150,000 awarded throughout the year to motivate candidates to prepare their qualification theses. A great majority of the theses presented consist of quality compilations of work already published and registered in the WoS or Scopus databases, with an added introduction and conclusion in English.

**The Faculty of Arts** is aware that while some of the disciplines it within its purview are well-established internationally, others need to strengthen their international position, and some require subsidies to be able to demonstrate their excellence on the international front. For this reason, in 2017 faculty management implemented tools to support research. First, a clearly laid out **support system for those applying for prestigious grants** was constructed using institutional programme funding, an effort whose results included the submission of an **ERC** project proposal. Further, the faculty focused on building a quality information service for **Czech Science Foundation** proposers.

At the **Faculty of Medicine**, successful graduates may take part in the **Junior Researcher** grant scheme. In 2017, the scheme supported a total of **21 projects** with CZK 7

million allocated to 11 units. Participating researchers must be 40 years of age or under, have a PhD, and be able to demonstrate their excellence as scholars against clearly defined criteria: 1) within a designated timeframe, the researcher must have been the lead author or corresponding author on at least one original journal article whose IF exceeds the median for the field, and 2) the researcher must be the author or co-author of an original article published in a journal with an IF, and which has received at least 40 citations according to the WoS (excluding any self-citations). Further criteria apply depending upon the department in which the researcher works.

**The Faculty of Social Studies** emphasizes support for research that will be published in foreign languages frequently used in the field, specifically, faculty periodicals registered in the Scopus database, and provides motivational bonuses to publishing authors.

Motivational incentives are also provided at the **Faculty of Sports Studies**. First, the faculty provided individual departments with ongoing information on the new R&D evaluation methodology and organized seminars on how to present articles for publication and on citation factors. The faculty focused significant effort on **increasing the quality of academic results**. 2017 saw the implementation of two measures as directives: the *Directive to Support Publication in High Impact Journals— Q1* and the *Directive to Implement Translation of Scholarly Materials*.

This practical support targeted teams focused on priority research and **interdisciplinary themes** as well as those **investigating social issues**. The programme outcome was a series of publications sent to high impact journals.

The **Faculty of Economics and Administration** also supports publication in academic journals, as it does setting up research teams, developing research institutes, and encouraging the international mobility of academics. As an example, the faculty provided **targeted funding to set up three new teams** with good potential for preparing quality project proposals for the H2020, TACR, and other prestigious grant schemes.

8%

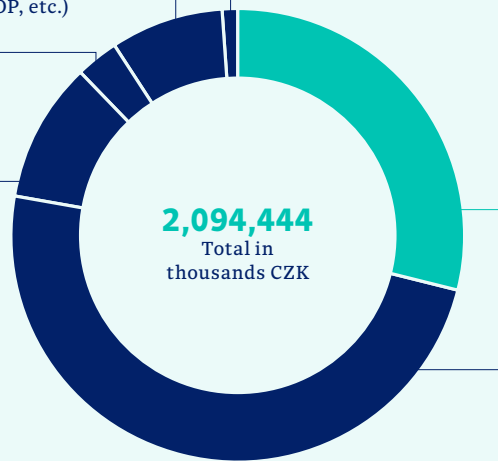
R&amp;D targetted funds (MU as a co-beneficiary, e.g., Czech Science Foundation, TACR, RDIOP, etc.)

2%

EU structural funds (RDIOP)

11%

Funding from foreign sources (e.g., 7FP, H2020, foreign foundations)



0.4%

MU sources (e.g., donations, other non-public funds)

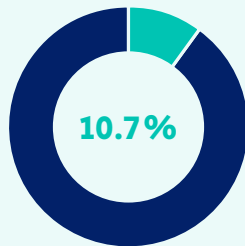
**Non-investment R&D revenues in 2017**

29%

Institutional R&amp;D support

49%

Funding from the state budget and regional authorities (e.g., Czech Science Foundation, NHI, specialized research)

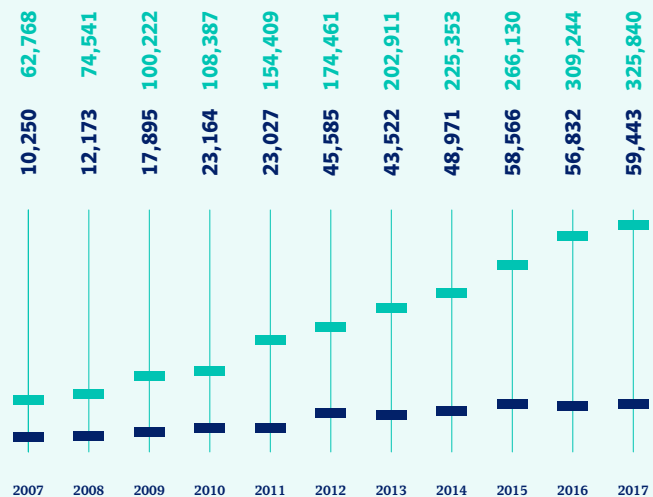
**Institutional R&D support acquired by MU from Czech sources in 2017****Total acquired targeted non-investment R&D revenue**

in thousands CZK

**CSF subsidies received by MU**

CSF subsidies received by MU as sole beneficiary (in thousands CZK)

CSF subsidies received by MU as co-beneficiary (in thousands CZK)



## Categories of grants announced by the MU Grant Agency

### Student grants

#### Specific university research

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- A – Student Research Projects
- B – Student Scientific Conferences

#### Rector's Programme

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- C – Excellent Diploma Theses
- D – Student Magazines

### Grants for Scientists

#### Research support programme

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- E – Excellent Results
- F – International Grants Arrangements
- G – Interdisciplinary Research Projects
- H – Individual High Risk/High Gain Projects
- I – MUNI Award in Science and Humanities

## Interdisciplinary research projects supported by the MU Grant Agency in 2017

### doc. RNDr. Jan Bouda, Ph.D.

Faculty of Informatics / Faculty of Science  
Group techniques and quantum information

### PharmDr. Zdenek Spacil, Ph.D.

Faculty of Science / Faculty of Medicine  
Transformative stem cell-based model of Alzheimer's disease and advanced analytics to study the role of membrane lipids in the pathogenesis

### Konstantinos Tripsianes, Ph.D.

CEITEC / Faculty of Informatics / ICS  
Pushing the limits in automated NMR structure determination using a single 4D NOESY spectrum and machine learning methods

### Tommaso Reggiani, Ph.D.

Faculty of Economics and Administration / Faculty of Arts / CEITEC  
Economic Decision-Making: Hormonal Determinants and Ritualized Behavior

## Mendel Lectures in 2017

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Ada Yonath, Weizmann Institute of Science, Israel

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Peter Donnelly, University of Oxford / Wellcome Trust Centre for Human Genetics, UK

---

Friedhelm Hildebrandt, Harvard Medical School / Boston Children's Hospital / Howard Hughes Medical Institute, USA

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David Tollervy, Wellcome Trust Centre for Cell Biology / University of Edinburgh, UK

---

Paul Modrich, Duke University Medical Center / Howard Hughes Medical Institute, Durham, USA

---

Erich Nigg, University of Basel, Switzerland

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Shizuo Akira, Osaka University, Japan

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Greg Hannon, Cancer Research UK Cambridge Institute, University of Cambridge, UK

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The image shows a collection of promotional items for Masaryk University. At the top left, there's a blue folder or brochure with a grid pattern and the text 'MASARYKOVA UNIVERZITA'. To the right is a blue mug with 'MU' on it. In the center is a blue lanyard with 'MUNI' repeated. Below that are two pens and a pencil, all with 'MUNI' branding. On the left is a white ID card with 'MUNI FSS' and a blue tag with 'MUNI'.

# Masaryk University to Change Logo—New Version to Come from Studio Najbrt

The new logo reflects both the fresh spirit and the traditional values of the university. It's the result of a tender for a new visual style for MU that was held in autumn 2017. The aim was to create a unified symbol with a functional system of individual logotypes representing individual university departments. The new visual identity is based on a unique university typeset from Studia Najbrt. The logo will give the university a fresh look for the first time in many years—the current logo, featuring the letters M and U enclosed within a circle composed of the words Universitas Masarykiana Brunensis, has been in use since 1990.

Foto: Promotional materials featuring the new logo by Studio Najbrt

Strategic Priority:



# Organizational Culture Based on Shared Values

**7.1**

**Inspirational  
University  
Environment**

**7.4**

**Visual  
Identity**

**7.2**

**University Associations  
and Student and Staff  
Activities**

**7.5**

**Career  
Counselling**

**7.3**

**Internal  
Communication**

**7.6**

**Services Provided to  
Persons with Special  
Needs**

**7.7**

**Ethics and Equal  
Opportunities**

## 7.1

### Inspirational University Environment

Masaryk University annually recognizes the extraordinary achievements of its students and employees. The university's **Rector's Award**, for example, was given this year to **22 MU employees, students, and graduates**.

In March 2017, MU awarded an **honorary doctorate in biochemistry to Wolfgang Baumeister**, who made a major contribution to the establishment of the Brno Laboratory for Cryo-Electron Microscopy and Tomography, and who allowed the use of his laboratories at the Max Planck Institute of Biochemistry in Martinsried to train MU scientists.

An **MU Bronze Medal** went to Associate Professor Ivana Holzbachova for her many years of service heading the editorial board of the magazine *Universitas Revue*. The university awarded a **small MU Bronze Medal** to Milan Appel, Director of the Luzanky Leisure-Time Centre for his longstanding work in leisure-time pedagogy and programs. Two more small MU Bronze Medals were awarded to Josef Plucar and Vaclav Jehlicka in appreciation for their management and organization of the University Center Telc.

MU students and employees often get awards for work outside Masaryk University, as well. An **Award for Outstanding Research Results** was presented by MEYS to Lumir Krejci (FMed and FSci). Professor Jiri Damborsky and his team from FSci received an award in the **Ceska Hlava** competition. A spinoff award for secondary school students, **Ceska Hlavicka**, went to Katerina Kudlickova for work done in collaboration with the Department of Experimental Biology at FSci. Associate Professor Pavel Janicek of FMed received the **Czech Idea Award** from the Technology Agency of the Czech Republic for his development of endoprosthesis for the growing femur.

The **Werner von Siemens Award for Young Scientists** for best thesis was awarded to Martin Gajarsky, Eva Vojackova, and Ondrej Tichacek. The **Award for Overcoming Obstacles to Study** went to Tereza Parilova. The **Alfred Bader Award** was given to Ondrej Jurcek of CEITEC for his work of many years studying terpenoids.

A **special prize awarded by the CEFRES** platform for best article in the social sciences and humanities went to Slavomira Ferencuhova at FSS. Embryologist Zuzana Holubcova at FMed received an **award from L'Oréal and UNESCO** aimed at supporting talented female scientists.

The international **Europa Nostra Award** was given to the National Heritage Institute project *Enjoying Czech Heritage*. Three departments at FEdu took part, supervised by Dusan Klapko. Petr Vlcek of FEdu received the Federation Internationale D'education Phisique—**Europe Thulin Award** for his contribution to the development of physical education.

## 7.2

### University Associations and Student and Staff Activities

In addition to being a leading educational and scholarly institution, Masaryk University fulfills a social and cultural role. The university organizes varied social, cultural, and sporting events and activities.

The academic year began on September 20 with an event for MU students at the Scala Cinema. During the evening ceremonies, introduced by the Rector of MU, the **Rector's Award for Outstanding Teachers** and the **SKAS Award for Student Participation in Instruction** were given. After the ceremony, there was an exclusive preview screening of *Jupiter's Moon*, a film by the well-known Hungarian director Kornel Mundruczo. A special occasion in autumn 2017 was the **hockey match in the DRFG Arena between Masaryk University and Charles University**. The match took place under the auspices of the European University Hockey League and was observed by almost four thousand fans, a spectator record. The calendar year concluded with an **advent concert** in the Basilica of the Assumption of Our Lady in Old Brno, given by the *Vernum 2013 Ensemble*.

Throughout the year, the university supported student events, chief among them **Brno 17<sup>th</sup>**, a unique commemoration of the importance of that date in 1939 and 1989. The annual race of **the university rowing crew** was a popular attraction. In September, MU challenged its rival, Brno University of Technology, on the River Svratka, home territory to both teams. The **MU Student Ball**, which has gained increasing popularity, took place on December.

The **MU Symphony Orchestra** offers an extraordinary cultural experience. 2017 saw three major concerts, the foremost of which was the December Christmas Concert held at Besedni Dum in Brno.

The student theatre group **ProFidivadlo** presented a dramatic version of *Katyne*, a novel by Pavel Kohout, in May 2017. A preview of the play was shown at the Faculty of Informatics, followed by two performances at the Scala University Cinema. May also saw the **17<sup>th</sup> Film Festival of the Faculty of Informatics**, entitled '*Move the Picture!*'

Individual MU faculties also organize various informal meetings of MU students and staff. Among them are sporting events like the *Faculty Badminton Tournament* at the Faculty of Economics and Administration, *The Legal Highlands*, the *Dean's Cup Run* organized by the Faculty of Sports Studies, and the *Bike to Work* contest, in which a total of 43 Faculty of Economics and Administration staff members and doctoral candidates took part. The Faculty of Sports Studies annually organizes a *Children's Sports Day* for the children of MU staff members and anyone else interested.

## 7.3

### Internal Communication

Another opportunity for MU staff members to meet is at social events like faculty balls and the university-wide **ceremony to reveal the MU University Wine** for the year, a popular social event that attracts academics as well as the public and private sectors. MU staff and their families also have the chance to socialise at the St. Nicolas and Easter gatherings. These traditional workshops are among the activities sponsored by the **university's Child Care Centre**, located at the Faculty of Social Studies.

**MU students form their own associations** that function within the individual faculties and on a university-wide basis. There are **more than 60 in existence**. University associations are often spinoffs of national and international organizations (including the Erasmus Student Network MUNI Brno, ELSA Brno, AISEC Brno, Masaryk Diplomat Union). In 2017, many association activities were conceived as cultural activities for academics, and the public. They included meetings of **Students for Liberty CZ**, with public discussions and screenings of films relevant to social issues. The student associations frequently engage in charity and benefit activities.

Student members of **ELSA Brno** organized an end-of-the-year Christmas party for charity in which promissory notes from teachers were auctioned off. *The Modry Hroch foundation* presented the funds collected to the emergency clinic at Children's Hospital Brno.

On May 16, 2017, **Mission of Hope**, a student non-profit organization, organized **Run and Help**. This year, the event was conceived as a charity run to support an autistic boy and a four-year-old girl suffering from muscle atrophy. The run took place in Kravi Hora. For each lap run, participants contributed CZK 100 to the Bariery bank account.

In April 2017, Brno saw a **Charity Flee Market** organized by students belonging to the **University Catholic Movement**. The CZK 11,000 collected was donated to a boy with muscle dystrophy and increased susceptibility to bone fractures.

Every year, the **Faculty of Arts Students' Endowment Fund** organizes activities aimed at interconnecting students and associations. At the start of the semester on 27 September, the **Masaryk Student Open Air** festival took place at Football Stadium, where student bands and representatives of the MUNIE university association made an appearance. Endowment Fund students have traditionally organized **Semester Start, Associations Fair, and a lantern parade to commemorate 17<sup>th</sup> November**.

2017 witnessed the launch of the stable version of **Muni Yammer, the internal communication network tool**. When it went live in February, the network was serving 300 active users. By the end of the year, there were **2,433 users, 1,491 of whom were members of the university staff**. Teaching materials were created to facilitate working with the communication network, and they are accessible in the MU Catalogue of IT Services at *it.muni.cz/yammer*. A number of employees were trained to use Muni Yammer, and a communication campaign to support the new tool was conducted throughout the year, starting with personal appearances at key meetings (Rector's Board, Academic Senate).

Existing communication channels (including the employee newsletter, MUNI Magazine, *online.muni.cz*, the MUNI Facebook page, and Noticeboard in IS) were also utilized. The high point of the campaign came in late November with a **Yammer user meeting in Scala**. The gathering was held as part of the 10<sup>th</sup> anniversary celebration of Munipress and served as a meeting point for employees, students, and book lovers.

At yearend, Yammer played a key role in presenting the winning concept for the university's new visual style. A *MUNI: New Visual Style* discussion forum group was set up and gained 1099 members. The number of message views was 34,708. The Muni Yammer internal communication network has proved its worth as an interactive content tool for an **internal employee portal** that is currently under development.

Based on an analysis of rectorate and academic department websites as well as responses to a survey of staff needs, a structure was created on the portal for static content, and functions and applications were written for dynamic content. The portal is set for launch in 2019, when Masaryk University celebrates its 100<sup>th</sup> anniversary.

To ensure functional internal communications, **ten digital newsletters were sent out**, each time to more than 4,000 staff addresses. Statistical analysis showed the December newsletter attracted the greatest employee interest. The most popular sections among the 58% of addressees who opened the newsletter were those on the university's new visual look, the approval of the university budget and newly appointed professors.

## 7.4

### Visual Identity

The competition for a new visual style for Masaryk University ended with the selection in September of a **proposal by Studio Najbrt** that makes reference to the functionalist tradition in Brno. The goal of the competition was to find a single MU logo with a functional system of individual logos that together would create a unified image for the university. With their official unveiling slated to coincide with the 100<sup>th</sup> anniversary of the institution in 2019, the new visuals are based around a **university font** custom designed by Studio Najbrt. The designers were tasked with finding a visual identity that would graphically depict the relationship between the university as an institution and its individual faculties.

The search for a new visual identity began in 2015, when the university made an effort to unify its graphical presentation. The original logo featuring the inscription *Universitas Masarykiana Brunensis* was retained for official documents such as diplomas and project documents involving the university; on all other university documents, only a blue 'M' and 'U' without the Latin inscription were used.

The search for a designer for the new visual style began in March 2017. Prominent Czech studios and promising young designers were contacted over time, and bidders were asked to prepare a basic logo, a graphical treatment of the 'Masarykova Univerzita' name, colour scheme, font, and a unified functional system for the individual elements. In the first round, two semi-finalists were selected and invited to discuss the university's needs and those of its individual units in detail. The majority of a ten-member panel composed of MU representatives and renowned graphical designers voted for Studio Najbrt's proposal. The studio's design is based on a **functionalist graphical treatment of the 'M' in Muni**.

In December 2017, the new logo and visual identity were gradually rolled out to university staff and the public. A key moment in the use of the new logo will be the celebration of MU's 100<sup>th</sup> anniversary.

## 7.5

### Career Counselling

The MU Career Centre functions as Masaryk University's HR/consultancy agency to create space for students, employers, and university target groups to interact. This allows changing circumstances in the labour market to be taken into account and thereby **boosts MU graduates' standing among employers**. The Career Centre offers services, events, and programmes for target groups and fosters collaboration with the private and public spheres. It was responsible for developing **JobcheckIN**, the university's career portal, which it continues to administer and improve. As of late 2017, **6,237 MU students and fresh graduates were registered on the portal, as well as 381 employers with 1,686 job offers**. The portal thus serves as a key common advertising space at MU, connecting employers and students looking for internships, traineeships, and jobs both during their studies and after graduation.

In autumn 2017, the **JobChallenge** career fair was held for the 11<sup>th</sup> year. Attended by 2500 Brno university students, the event was moved this year to the Brno Trade Fair grounds because of the increased demand. The change of venue allowed a record 130 exhibitors to present offers, including representatives of public administration and other public institutions. In addition, 10,000 copies of **JobMagazine**, created and published specifically for the fair, were distributed on the exhibition grounds.

Another event that garnered attention was **Industry ShowCase**, focusing on careers in IT, corporate finance, public administration, customer care, and law. 423 students took part in company workshops and other events organized by employers. A two-day **Prvakoviny seminar was held** in September to give newly admitted students a chance to acquaint themselves with their faculty environment and to get ready to study at MU. 1,006 students took part in all.

In terms of counselling, 302 students came for individual career consultations, coaching, or psychodiagnostic testing. Frequent themes included career direction, setting priorities, and specific steps to take and strategies to use in job seeking. Students sought help with CVs, letters of motivation, and career profiles on JobCheckIN. Developmental courses in 2017 focused on career planning and skill acquisition for 447 students.



## 7.6

### Services Provided to Persons with Special Needs

The **Support Centre for Students with Special Needs (Teiresiás Centre)** serves persons with disabilities at all MU faculties and departments. 80 workstations are available in public computer classrooms and study rooms operating nonstop, providing access to all available compensation software for persons with disabilities. Teiresiás also has **its own publishing house for tactile literature**, including tactile graphics and maps, as well as a video recording studio for documents in Czech sign language.

The university's teachers and assistants in 2017 included four persons who were blind or had serious visual impairments, eight persons who were deaf or seriously hearing impaired, and three wheelchair users. Under Rector's Directive No. 8/2014, both staff members and students may use the Centre's services.

During the winter semester 2017, MU registered **505 students with the following types of disabilities**: 69 visually impaired (a year-on-year drop of 10%), 48 hearing impaired (down 20%), 60 physically disabled (down 13%), 187 students suffering from specific learning disabilities (up 16%), 141 people with autism spectrum disorders, other psychological difficulties, or chronic somatic diseases (up 3%).

Two students, one hearing impaired and one with a physical disability, went abroad for a semester; four students with disabilities came to MU under exchange programmes.

The total number of persons with disabilities at MU remains unchanged; the number of students with sensory and physical movement disability has dropped, while the number of students with other disabilities—especially 'hidden disabilities'—rose. Of the total number of students with disabilities, 420 met the conditions for MEYS to share services provision costs with the university (4% fewer than in the prior year). In addition to regular and combined degree programmes, Masaryk University provided **lifelong learning programmes in 2017 to 59 persons with disabilities**.

MU public library book stacks include 1710 library units in Braille; **the total number of adapted book titles available digitally is 7,170**, including titles available as hybrid books, a format developed by Masaryk University.

**In 2017, Masaryk University chaired the Association of Service Providers to University Students with Special Needs**, an association of universities that assume active responsibility for creating an accessible study environment. This year, the 13 public universities were members of the association.

## 7.7

### Ethics and Equal Opportunities

Masaryk University is aware of its social responsibility and believes ethical values must be adhered to and developed. For this reason, the university has created **a system of ethical rules and principles binding on all academic and other staff members**.

These basic ethical requirements placed on MU employees in their capacity as professionals are summarized in the **MU Academic and Professional Employee Code of Ethics of 2015**. To ensure adherence to the ethical code, several oversight bodies were set up under the directive, including the **Masaryk University Equal Opportunity Panel**, which functions as a standing advisory body to the Rector and is tasked with monitoring implementation of the principles of non-discrimination and equality at MU and ensuring compliance. No complaints were brought to the panel in 2017.

Another such oversight body, the **Masaryk University Ethics Board**, addressed two potential issues in 2017. The first concerned a suspected breach of Art. 7 Pars. 1 and 2 of the Code of Ethics. A statement from the Ethics Board dated 6/2/2017 stated that no breach of the Code of Ethics had taken place in that instance. The second case involved the potential encouragement of unethical citation practices. The Board took note of the incident but decided not to discuss whether a breach of the Code of Ethics had in fact taken place.

The **Masaryk University Research Ethics Committee** is an independent multidisciplinary body of MU tasked with ensuring that research is carried out in an ethical manner, especially research conducted directly at MU, including work with human biological materials.

Through the course of the year, the Committee examined a total of **151 projects**, mostly in the form of new project proposals presented for its approval. The remaining share consisted of projects that had been investigated earlier and then revised, and project inspections conducted after funding had been allocated. Consultation on future projects was also provided.

The Ethics Committee gave detailed attention to the issue of informed consent and protection of personal data related to the GDPR (General Data Protection Regulation).

The Ethics Committee presented its mission and work at several professional meetings both in the CR and abroad. In 2017, the Committee **obtained OHRP accreditation** (Office for Human Research Protections, U.S. Department of Health and Human Services) for a three-year period. This testifies that the Committee's makeup and working standards **comply with international regulations**.

## Masaryk University Rector's Awards awarded in 2017

### Rector's Award for Outstanding Creative Activity

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doc. JUDr. David Kosar, Ph.D., LL.M., J.S.D., Faculty of Law, MU

### Rector's Award for an Outstanding Sports Performance

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Bc. Adam Ondra, Faculty of Economics and Administration, MU

### Rector's Award for Extraordinary International Grant Competition Results

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prof. MUDr. Irena Rektorova, Ph.D., Faculty of Medicine, MU

### Rector's Award for an Outstanding Doctoral Thesis

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RNDr. Jakub Gajarsky, Ph.D., Faculty of Informatics, MU  
Mgr. Lenka Hrbkova, Ph.D., Faculty of Social Studies, MU  
Mgr. Petra Vychytilova, Ph.D., Faculty of Science, MU

### Rector's Award for Outstanding Artistic Activity

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doc. ak. soch. Jiri Sobotka, Faculty of Education, MU

### Rector's Award for the Active Development of Civil Society

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Jiri Nemecek, Faculty of Social Studies, MU

### Rector's Award for Outstanding Doctoral Candidates

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Mgr. Zuzana Frantova, Faculty of Arts, MU  
Mgr. Iva Gudernova, Faculty of Medicine, MU  
Mgr. Radek Michalko, Faculty of Science, MU

### Rector's Award for Long-term Excellence in Research

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prof. MUDr. Jiri Mayer, CSc., Faculty of Medicine, MU  
prof. PhDr. Jana Nechutova, CSc., Faculty of Arts, MU

### Rector's Award for Outstanding Teachers

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doc. PhDr. Stanislav Balik, Ph.D., Faculty of Social Studies, MU  
doc. Mgr. Marketa Munzarova, Dr. rer. nat., Faculty of Science, MU  
doc. RNDr. Jan Strejcek, Ph.D., Faculty of Informatics, MU

### Rector's Award for Outstanding Students in Master's Programmes

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Mgr. Blanka Datinska, Faculty of Arts, MU  
Bc. Simona Kubouskova, Faculty of Science, MU  
MUDr. Dana Sochorova, Faculty of Medicine, MU

### Rector's Award for Outstanding Research Results Achieved by Young Scientists under 35

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Mgr. et Mgr. Hana Machackova, Ph.D., Faculty of Social Studies, MU  
Mgr. Jiri Novacek, Ph.D., Faculty of Science, MU  
Ing. Michal Struk, Faculty of Economics and Administration, MU

## Satisfaction and identification with the university based on student surveys

### Survey

#### Applicants for studies at MU in the 2017/2018 academic year

Winter 2016 – Spring 2017

MU applicants who submitted their applications to bachelor's or long-cycle master's programmes consider the available areas of study and MU's prestige to be the university's greatest strengths. A pleasant environment both at MU as a whole and at the individual faculties, plus the school's physical location, are also appreciated. Most applicants have always planned to study at a university. 93% would like to get specific practical experience during their study, and 8 out of 10 wish to earn money during their student years.

### Survey

#### Study Roadmap – 1st wave implemented among first-year students

Autumn 2017

First-year students in bachelor's and long-cycle master's programmes who took part in the longitudinal survey most frequently made their decision as to what to study on the basis of their interest in a specific discipline, its subject matter and quality. 8 out of 10 see their study at MU as a dream come true. They specify opportunities related to increased qualification and the quality of life as the strongest motivator for university study.

### Survey

#### Motivation and Expectations of Incoming Master's Students from Other Universities

Spring 2017

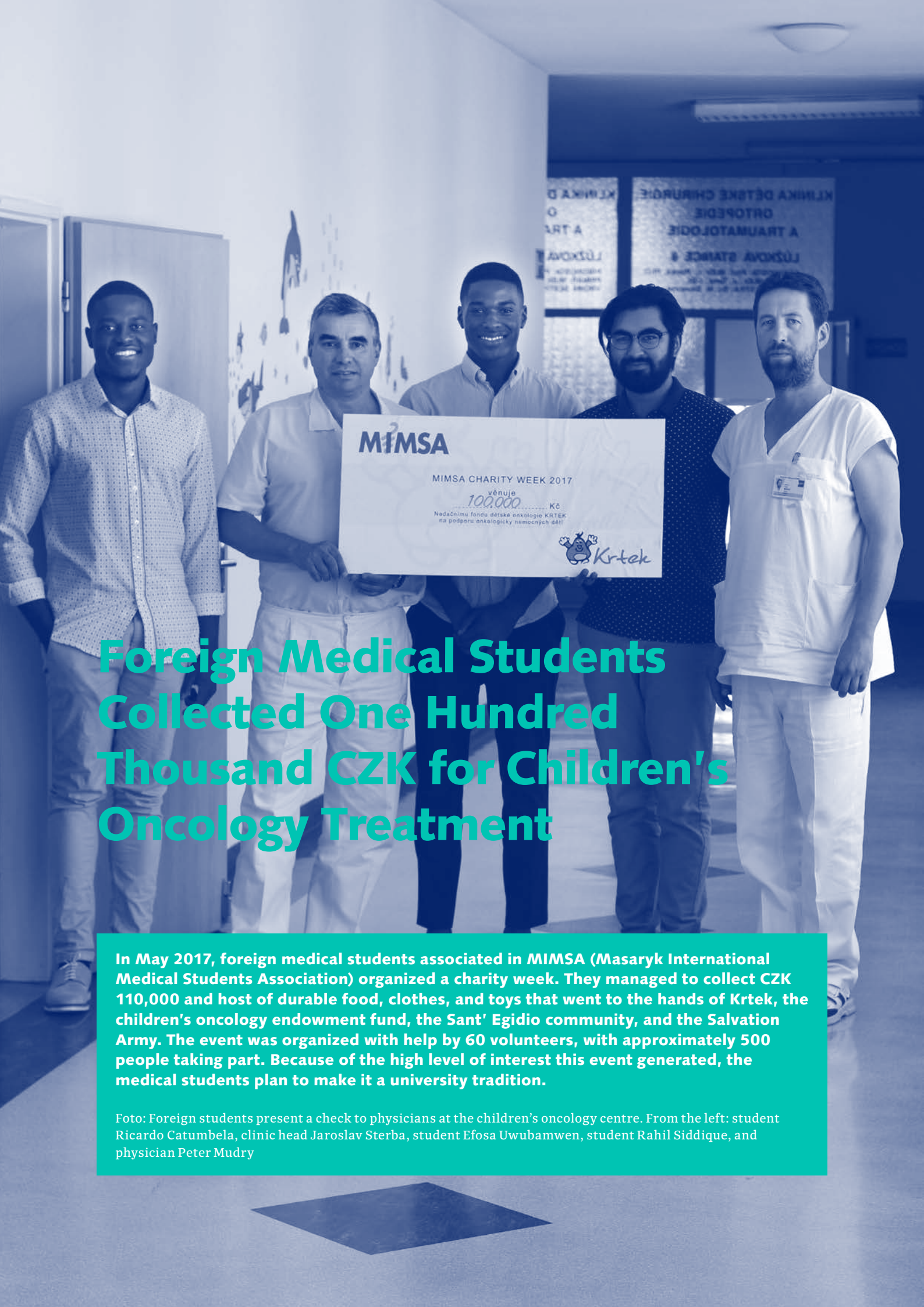
Participating students who hold a title from another university and come to study in the follow-up master's programmes decided for MU based upon the wide range of follow-up programmes offered and the university's prestige. Most respondents indicated that in terms of content and methodology, study at MU met or exceeded their expectations. 95% agreed that follow-up master's programmes at MU are a good choice.

### Survey

#### Completion of Studies at MU – Looking Back and to the Future

Summer 2017

9 out of 10 fresh graduates of long-cycle and follow-up master's programmes are satisfied with what they have learnt at MU. Among MU's strengths, graduates mention the range of study areas available, IS MU, library facilities, access to electronic resources, courses offered, and the quality of MU technology. 84% of employed graduates found it easy or fairly easy to get a job; 89% of employed graduates found employment in their field.



# Foreign Medical Students Collected One Hundred Thousand CZK for Children's Oncology Treatment

**In May 2017, foreign medical students associated in MIMSA (Masaryk International Medical Students Association) organized a charity week. They managed to collect CZK 110,000 and host of durable food, clothes, and toys that went to the hands of Krtek, the children's oncology endowment fund, the Sant' Egidio community, and the Salvation Army. The event was organized with help by 60 volunteers, with approximately 500 people taking part. Because of the high level of interest this event generated, the medical students plan to make it a university tradition.**

Foto: Foreign students present a check to physicians at the children's oncology centre. From the left: student Ricardo Catumbela, clinic head Jaroslav Sterba, student Efosa Uwubamwen, student Rahil Siddique, and physician Peter Mudry

Strategic Priority:

# Inspiration and Social Responsibility



**8.1**

**Key Projects Implemented  
in Response to Societal  
Challenges**

**8.4**

**Alumni Relations  
Development**

**8.2**

**Masaryk University  
in the Media**

**8.5**

**Mendel  
Museum**

**8.3**

**Cultural Role**

**8.6**

**Munipress (Masaryk  
University Press)**

**8.7**

**Library Services**

# 8.1

## Key Projects Implemented in Response to Societal Challenges

Through its work, the university contributes to improving the social environment by educating a broad range of people, not just university students.

**Masaryk University**—the junior university—has enjoyed great popularity. Its third run was attended by **168 children from 9 to 14 years of age**, almost all of whom successfully completed their studies. Eight faculties at Masaryk University and an additional three university units prepared lectures, workshops, and excursions.

The Faculty of Economics and Administration continues to support the **financial literacy of the socially disadvantaged**. A project implemented in conjunction with Citi Foundation, a prestigious global foundation, works to this end. With the help of NGOs, seminars targeting socially disadvantaged groups were held in asylum homes, Bohunice Remand Prison, and other locations within the South Moravian region.

The Faculty of Economics and Administration, working closely with partner organizations (Impact Hub and the Czech Chamber of Commerce) also established the **Playpark Brno** project, a unique educational programme featuring top lecturers and mentors who offer free workshops to facilitate the businesses of participants. They conclude with an opportunity to present one's own business projects to investors.

The Faculty of Education implemented 15 specialized workshops on **inclusive education** and one roundtable in which practicing professionals and people with special educational needs participated.

The Faculty of Sports Studies implemented the *Quality Inclusive Education for Students with Special Educational Needs at Primary and Secondary Schools* project under the Operational Programme Research, Development, and Education.

In late 2017, the Department of Social Pedagogy at the Faculty of Education, together with the Association for International Affairs, organized a roundtable on "**Revealing Russian Disinformation**". The programme included a presentation by stopfake.org, a website focused on uncovering disinformation.

Disinformation is also the target of **Zvolsi.info**, a noteworthy project that shows secondary students how to work with information and identify 'fake news'. In 2017, project representatives prepared a media guidebook, which they used in lectures across the Czech Republic and Slovakia. The project was awarded the **Gratias Tibi 2017** for promoting critical thinking.

In May 2017, foreign medical students in MIMSA (the Masaryk International Medical Students Association) organized a **Charity Week**. It was a large-scale fundrais-

er, with CZK 100,000 collected for the Krtek foundation. Other funding from the collection went to the Salvation Army and the Sant' Egidio community, which looks after the homeless.

A hundred Medical Faculty volunteers also put up eight booths at the Olympia Shopping Centre on **World Health Day**. Volunteers offered shoppers the chance to have several physiological values measured, including blood pressure and body fat percentage, and explained the values taking into account age and physical condition. More than 1,200 people took advantage of these services. A site was also set up for children called *Teddy Bear Hospital*. Medical students played with the children, operated on stuffed animals, and talked about a healthy lifestyle. The Faculty of Sports Studies, for its part, celebrated World Health together with the Brno Diocesan Charity.

Students at the Faculty of Education who are members of MU's **Open Inter-University Association** decided to take a proactive approach to examples of good practice in teacher training. Working closely with Czech faculties of education and several foundations for an extensive period of time, the students launched a project entitled **Teacher Training Innovation Mapping**. Students work with information on non-traditional didactic approaches and combine them with identified opportunities to teach skill development in order to prepare comprehensive narratives that include methodology.

Current social affairs are the subject of an audio-visual project by **Kabinet Filmuz**. On selected nights, discussions and mini lectures are presented and followed by screenings of documentaries focused on the issues discussed. This year's guests included Sasa Uhlova, the chief protagonist and creator of the *Limits of Work* documentary.

As part their practice, students of Sports Management at the Faculty of Sports Studies organized the third **Regional Special Olympics for Handicapped Athletes in Brno**. The Special Olympics aims to give people with mental disabilities the opportunity to do sport on a regular basis without the stress of absolute performance criteria. The Olympics took place in May 2017, and approximately 180 participants competed for medals.

The RECETOX centre operates a **Regional Centre of the Stockholm Convention on Persistent Organic Pollutants (POPs)** that supports proper handling of chemical substances and the transfer of knowledge and technology to environmental practice at both the national and international levels.

## 8.2

### Masaryk University in the Media

In 2017, Masaryk University continued to strengthen its position with the Czech media as a leading educational and research institution. The university's solid standing is regularly reaffirmed by MU's internal media image analyses.

This year, MU and MU representatives appeared in the media somewhat less than they had in 2016—considering all print, radio and TV appearances in the Anopress database but the figure was still higher than publicity rates from prior years stretching back to 2009 by double digits. (Data are available from 2009 onwards.)

The university had **higher visibility in the national media** than ever before. As has been the case in prior years, the bulk of the university's exposure came from **expert commentary** provided by political scientists and in interviews conducted with Rector Mikulas Bek. MU was able to get coverage of **its own topics** concerning the university, specifically increasing the budget, gaining institutional accreditation, and offering new degree programmes.

As they do every year, media outlets provided substantial coverage of Antarctic research expeditions. **Information for the public on developmental activities at the university** was disseminated through the media, particularly to do with the upcoming SIMU+ practice simulation hospital and on the biobank whose construction is currently being readied on the Bohunice campus.

Along with natural science and medical themes (such as research into sunblocks and a unique post-chemotherapy exercise programme), the humanities and social sciences also received coverage (research into immature adults and trust in the media).

**The scientific achievements of Karina Movsesjan** (now called Zadorozhny), still in secondary school but already functioning as an MU laboratory researcher, attracted intense media attention. Considerable notice was also taken of a **project by art historians** who set out on a unique journey of more than a thousand kilometres visiting French monuments.

The Faculty of Social Studies fared best when it came to attracting publicity. The media attention enjoyed by the faculty is closely tied to the expert commentaries its political scientists provide. The Faculty of Economics and Administration also had a high-profile presence in the media in 2017. The Faculty of Medicine, Faculty of Science, and Faculty of Arts led in gaining coverage of themes focused on their research and educative efforts. Over the two most recent years, the Faculty of Sports Studies has also gained visibility, as has the Faculty of Education, both attracting media attention that had eluded them in previous years.

## 8.3

### Cultural Role

Last year, **University Cinema Scala** welcomed 92,000 patrons making it the **most visited single-screening room cinema in the Czech Republic**. The cinema also hosted a number of major conferences, cultural and social events, as well as popular science events. In 2017, **20 Science Slam performances**, during which scientists present their research in a dramatic, fun way, were held in the cinema. The national Science Slam round itself was held in Brno, and the **European Finals** were organized by Masaryk University.

The cinema served, as it had many times before, as the meeting point for MU foreign students to receive orientation information and was also the venue for a gathering of participants in the **MjUNI programme**. Other Scala events included the popular **Faculty of Informatics Film Festival** and performances from ProFItheatre, that sold out for two nights at the cinema.

In autumn, the university once again took part in the highly popular national annual event **Researchers' Night**. All nine faculties and other university units participated in the event. Popular with all age groups, the 2017 run welcomed 6,000 visitors.

Other traditional events organized for academics and the general public included a **concert to celebrate the 98<sup>th</sup> anniversary of the university's founding**, featuring spiritual music by Händel, Vivaldi, Mozart, Puccini, and others, performed by the *Boutique de Musique* trio. At the end of the year, an **MU Advent Concert** was organized.

The Medicinal Herbs Centre of the Faculty of Medicine organized an **annual exhibition of medicinal plants**. This year, it was prepared in collaboration with the MU Mendel Museum and included a panel exhibition entitled *Masaryk University Herbarium*.

For the eighth year running, the Department of Art at the Faculty of Education participated in March 2017 in the organization of **Art Week**, interconnecting Brno cultural institutions and offering visitors a programme packed with exhibitions, vernissages, lectures, workshops, gallery animations, and workshops. Throughout the month of November, events were organized around World Philosophy Day, announced annually by UNESCO. One such event was the annual **Humanities Week**, organized by the Faculty of Arts on the theme of *Reforms and Revolutions*.

In late 2017, the Faculty of Arts prepared a gift for the public in the form of a performance entitled *Baroque Across Europe: When Europe Was Dancing the Minuet*. **Dance ensembles** from the Czech Republic, Poland, and Slovakia presented Baroque court dances. In addition, a Baroque opera entitled *Les Ballet des Éléments: The Power of the Elements* was presented.

## 8.4

### Alumni Relations Development

Masaryk University remains dedicated to cultivating a relationship with its graduates. It is well aware that their potential is crucial for its own development and connection the academic community to practicing professionals. In 2017, the ninth issue of the **print Graduate Magazine**, published by the university once a year, was sent to over 4,000 addressees **in the Czech Republic and beyond**.

In 2017, the **MU Alumni Card**, which offers graduates university and commercial benefits, gained popularity. The main motivation and most frequently used benefit of the card is free entry to university libraries and electronic resources. A total of 3,100 cardholders are currently taking advantage of what it offers. MU graduates can also sign up for the **MU Alumni Network** which is part of the IS.

Close collaboration with the **Alumni and Friends of Masaryk University continued** throughout 2017. Among the alumni association's priorities are the support and promotion of student and graduate projects that encourage the growth of civil society, the organization of educational and cultural events, and graduate gatherings.

Relationships with alumni are also fostered by the individual faculties. Many use their websites to present successful graduates and their careers. The Faculty of Social Studies publishes interviews with major figures tied to the faculty in its faculty magazine **Atrium**. In a similar vein, the Faculty of Medicine promotes recognized graduates in the bulletin **Our Faculty**.

As in previous years, meetings were held in 2017 with leading graduates of the Faculty of Law as part of the 11th year of the annual international **Days of Law** conference. Faculty graduates are also invited to the **Law at the Highlands** sporting event. In 2017, for the first time, the Faculty of Social Studies invited graduates to present themselves and their work as part of **Faculty Days**. The Faculty of Sports Studies commemorated the founding of the faculty with a gala evening at the university's Bohunice campus that included a social gathering for staff, graduates, and other guests.

For the second time in its history, the Faculty of Education **presented a Teacher of the Year prize to a distinguished graduate of the MU Faculty of Education**. More than 550 people evaluated the nominees and the prize was awarded in November.

The Faculty of Informatics also works closely with its graduates. Opportunities for collaboration are actively shared within the **FI MU Alumni** group on LinkedIn, which has more than 1,400 members. Many of the school's graduates work for partner companies who belong to the **Association of Industrial Partners**.

## 8.5

### Mendel Museum

Mendel Museum celebrated ten years of being part of Masaryk University. This **ten year anniversary** generated international events of unprecedented scope. Mendel Museum got in touch with three countries where it presented Czech science, Gregor Johann Mendel, and Masaryk University. The first part of the 2017 international activities began **in Rome** where the museum collaborated on an **exhibition on genetics and the history of genetics**. Mendel Museum lent original exhibits, and the director of the museum gave a lecture as part of the accompanying programme for the exhibition. *National Taiwan Normal University* was the second international site. Here, presentations were given on MU, Gregor Mendel, and leading scientists from the Czech Republic. The National Technical Museum joined MU in preparing the exhibition. And the final international event involved participation by the museum in the *Mutual Inspiration Festival*, an event regularly organized by the Czech embassy in the USA. The key theme for 2017 was Gregor Mendel. The museum took a hand in preparing the content, and the director of the museum lectured on Mendel's life. Museum staff also gave presentations at the Universeum international conference in Belgrade, and at the ICOM-UMAC conference in Helsinki. At the latter, the director gave a presentation on Mendel Museum's activities and methods of work.

In keeping with its professional focus, **Mendel Museum hosted Rare Disease Day**. It also engaged in collaboration with the Gregor Mendel Genetic Society and other institutions. Science was promoted on the popular annual **Museum Night**, and at the successful **Summer Mendel Festival**, organized by TIC Brno, for which Mendel Museum helps create the concept and schedule. Between the two events, the museum registered almost 4000 visitors.

Among the museum's most notable activities were the prestigious **Mendel Lectures**. In 2017, eight lectures were given, of which the most prominent was a **lecture by Nobel Prize holder Paul Modrich**.

The museum's activity was by no means limited to presentations, however. Much of its work was devoted to readying the opening of the Old Brno Abbey Museum, which is to take place in January 2018. The museum also worked intensively on preparations for an exhibition of MU, part of the university's anniversary celebration scheduled for 2019. Inside the museum, administrators focused on the MU collections and central records.



## 8.6

### Munipress (Masaryk University Press)

In 2017, the **10th anniversary of the founding of Munipress**, the publishing house focused on three key tasks. The first was to ensure that periodicals and non-periodicals were published in keeping with the MU Publication Schedule. **Masaryk University has always been a leading academic publisher.** In 2017, under the Munipress label, MU brought out 363 academic publications, 63 texts, and 61 journals.

The second task entailed meeting strategic development objectives. Munipress now includes a **new popularisation edition Munice**. The press organized two seminars for authors: *How to Publish Science*, and *A Garden Seminar on Academic Popularization*. Also, for its *First Czech Editions* series, the house obtained the rights to a Czech translation of the internationally acclaimed book by S. Mukherjee: *The Gene: An Intimate History*.

Munipress electronic publications included **292 e-books** by MU authors in the 2010–2017 period. The published titles were included in international databases and presented on the updated Munispace portal. The total number of downloads was 6977.

For distribution within MU, Munipress used the new e-shop Munishop and provided facilities for a distribution point, storage, and dispatching of promotional items. It expanded **Munishop's offer by 686 book titles and 16 journals**.

The increased stature of Munipress is testified to by awards the press received for books and other publications: the MU Rector's Award for Outstanding Doctoral Dissertation (L. Hrbkova, FSS); Most Beautiful Czech Book: shortlisted: *Cinsky Denik*; Josef Hlavka Award for Scientific Literature: *Plasticka a Rekonstrukcni Chirurgie*; and the inclusion of *Korab Pohadek* in the Best Children's Books catalogue for 2016/2017. An important acknowledgment was **the appointment of a Munipress representative to the Committee of the Association of European University Presses**.

The third task was to organize a book fair to commemorate the 10th anniversary of the founding of the publishing house, with an exhibition in the Scala cinema entitled **Munipress Top Ten**. The exhibition presented a selection of the most noteworthy output of the press during its ten years of existence and served as a way of honouring and thanking everyone who has blazed the trail for science through book publishing.

## 8.7

### Library Services

The university library system is stable and structured on the basis of a network of central faculty libraries and special-purpose libraries (e.g., the University Library for Students with Special Needs, the University Center Telc library, and dozens of freestanding libraries, and department libraries. MU's libraries have **36,378 active users**, who borrowed 629,165 items **of the almost 1.7 million items available**. The Library Information Centre operated by the Institute of Computer Science is in charge of coordinating the libraries and taking care of their common technology base.

A key task was to ensure the availability of key electronic information sources for academics, research, and instruction for 2018–2022. To do so, a long-term plan for selecting electronic information resources and obtaining the needed funding from the central and faculty budgets was put in place. The university took an active hand in the work of **CzechELib**, a national centre that provides almost half of all information e-sources. Additional purchases of electronic information sources to meet the needs of students will be part of the *MUNI4Students* project also submitted to OP RDI. The focus will be on archives of selected journals and e-book collections for various fields of study offered at the university.

**Digital libraries** implemented in previous years to meet the needs of the university and professional communities around the country continued under development. They include the *Czech Digital Mathematics Library*, *Digital Library of the Faculty of Arts*, *Digital Library of the Faculty of Law*, *Digital Library of MU Photographs*, and the *e-prezencka* system, which allows hard-to-get study materials to be digitized so they are locally accessible.

In accordance with the strategic plan for library development, the Library and Information Centre created a system for the education of MU librarians. In 2017, a series of **eight lectures and training sessions on IT**, library standards, and information trends was organized and attended by a hundred university librarians.

As always, the libraries organized cultural and educational events and training sessions for users, and also took part in instruction. They prepared **1,287 hours of training sessions and teaching** attended by eight thousand students and users. As part of the experience of sharing under Erasmus, MU libraries organized their traditional **MUST Week**, attended by 15 librarians from Great Britain, France, Germany, Norway, Poland, Lithuania, and Greece.

## Publications and libraries in 2017

**61**  
scholarly journals  
published by MU in 2017

**566**  
publications available  
in the Munispace  
online reading room

**363**  
expert publications  
issued by Munipress

**1,710**  
library units in Braille

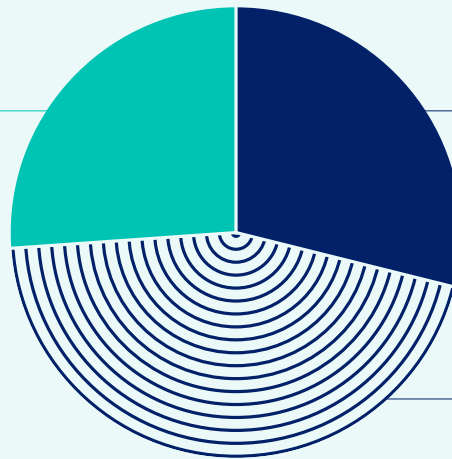
**17,162**  
visits to the Munispace  
online reading room

**1,683,037**  
titles available in the  
MU library collection

**36,378**  
registered users  
actively utilizing the  
MU library system

## MU media image in 2017 according to article type

**26%**  
Expert commentary

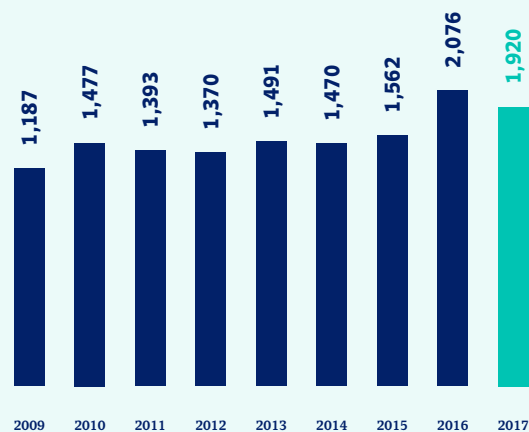


**29%**  
Focus on MU

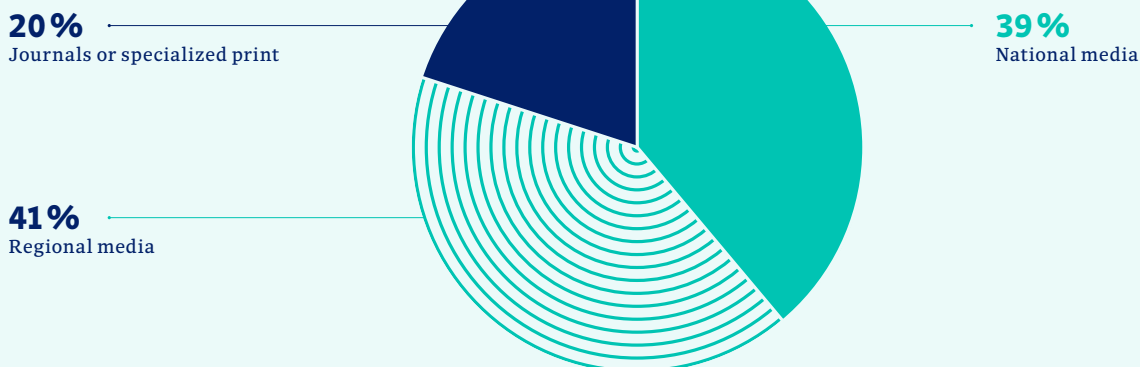
**45%**  
MU mentioned

## Masaryk University-related media output

Number of media mentions



## MU publicity in 2017 by media type



## Top 10 themes for media mentions

Research in Antarctica

Increasing university budget

New offer of degree programmes

Research into sunblocks

Biobank at campus

SIMU+ practice hospital

Migrating Art Historians

Research into immature Adults

Science talent – Karina Movsesjan

Diagnostic tool to detect methanol in blood

## Top 10 MU experts in the media

Lubomir Kopecek, political science

Mikulas Bek, Rector

Stanislav Balik, political science

Hana Lipovska, economy

Josef Kraus, security studies

Milos Gregor, political science

Michal Pink, political science

Miroslav Mares, security studies

Vit Hlousek, international relations

Alena Zakovska, biology



## University Instructors Learn Better Teaching in a New Centre

The new Pedagogical Competence Development Centre (CERPEK) has been in operation since June 2017. In it, practicing instructors and doctoral candidates who teach have the chance to improve their teaching competence. In addition to emphasizing academic achievement, the university attempts to reinforce academics' ability to transfer their knowledge to students—the very art of teaching. The first courses were held in September, catering for thirty teachers from eight MU faculties.

Strategic Priority:

# Personnel Management and Employee Development

# 9

## 9.1

Internal Personnel  
Management Regulations

## 9.2

Qualitative Growth  
and Employee  
Evaluation

## 9.3

Open Personnel Policy  
and Related Services

## 9.4

Employee Training  
and Benefits

## 9.1

### Internal Personnel Management Regulations

At Masaryk University, 2017 was a milestone year for internal personnel management norms. After several years of discussions and preparations across the university, two key norms were approved: the *Masaryk University Internal Wage Regulations* and the *Regulations on Competitive Selection Procedures at Masaryk University*.

The newly updated **Internal Wage Regulations (IWR)** 1) adhere to the principles of greater transparency by giving more precisely defining individual wage components, 2) create internal justice by remunerating positions based on work performed, 3) tie employee evaluations to individual wage components that reflect long-term performance (the personal bonus), and 4) support both short-term and long-term achievement (the performance bonus). The document includes a new wage standard for creative leaves and the 'golden handshake' for those vacating high-level positions.

2017 also saw the initiation of **discussions of the MU Job Catalogue**, i.e., on the implementing regulation for the newly registered IWR. The objective of the catalogue is to define and characterize academics and non-academic positions at MU. It contains general job descriptions for academics, and classifies the positions of academics and other employees into wage tariff groups. Qualification requirements are also included.

**The new Regulations on Competitive Selection Procedures at Masaryk University** support a competitive environment and **reinforce internationalisation in hiring**. Among the key changes is the requirement that all selection procedures for academic positions be publicized in both Czech and English, that selection procedures for senior academic positions (docent, professor) be published in a foreign medium befitting the field, and that an internationally relevant research profile be published for all candidates. The regulations require that at least one member of every selection committee for senior academics be **a foreign expert in the field in question**. Also, the **option is given to directly contact excellent candidates** if specific conditions are met, as is the option to determine the rules of recruitment for professors with exceptional qualifications.

In 2017, the implementation of a process introduced in preceding years—**new employee adaptation**—continued and was expanded to include other MU departments and units. An information brochure was prepared for new employees with basic information on important things to know about working at MU. Finally, at the Rector's Office, **job systematisation was successfully implemented**.

## 9.2

### Qualitative Growth and Employee Evaluation

In 2017 Masaryk University **welcomed 18 new professors and 55 new associate professors**.

**Upon recommendation by the Scientific Board of Masaryk University**, President Milos Zeman **appointed 14 people to professorships**, most (11) employees of Masaryk University. In terms of gender, 86% were male. The average age of those appointed was 50.5 years (range 38–78).

**60 habilitation procedures at the university terminated in appointment**. Rector Mikulas Bek appointed a total of 51 university employees and 9 employees of other institutions to associate professorships. 65% were male and 35% female. The average age of those appointed was 42.5 years (range 33–58).

Four university employees were appointed professors outside MU, and another four who underwent the habilitation elsewhere were appointed associate professor at MU.

In May 2017, a new internal regulation came into force in the form of the *MU Regulation on Habilitation and Professorial Appointment Procedures*. Then, on 1 September, a revised MU directive entitled *Habilitation and Professorial Appointment Procedures* took effect. Chief among the modifications brought by the new directive is that **any proposal to initiate the procedure, including any associated formalities, must be presented in English**. For habilitation procedures initiated by 31/12/2020, the habilitation thesis may be presented in Czech, Slovak, or English. After this date, habilitation theses will have to be presented exclusively in English, or another language (with the exception of Slovak) usual for the discipline.

A pilot test of **employee evaluations was prepared and run** this year with the aim of determining the basic rules and principles of employee evaluation, identifying key evaluation components, and designating outputs. Essential parts of the evaluation process consist in focusing work objectives and personal development objectives, i.e., evaluating past achievements and setting goals for the upcoming period. This is carried out as part of an evaluation interview. It also includes feedback on collaboration, personal plans, and the career ambitions of the employee, and—for team leaders—a discussion about the teams they lead. **Outputs take the form of defined personal goals for the upcoming period, defined personal development goals**, and a final summary of the evaluation interview.

The system and evaluation tool was in pilot operation at the Rector's Office in 2017 with plans to implement it in other MU departments and units, as well. Several seminars and workshops were held throughout the year to explain the system to university secretaries and HR staff members.

## 9.3

### Open Personnel Policy and Related Services

Since 2015, Masaryk University has had a *Personnel Policy Support Programme* that provides **financial support for hiring outstanding new academics and other professional employees—with a focus on those coming from abroad**—at MU. The programme funded the first two years of the new employee's work at the university. In 2017, 12 employees from five faculties benefitted from the *Personnel Policy Support Programme*, which was launched in 2016.

In October, the Rector announced a new version of the *Personnel Policy Support Programme*. Before the changes were announced, the measure that contains the programme guidelines was itself revised. **Five faculties took part in the new programme:** FA, FSci, FEdu, FSS, and FEA. University management **approved funding for 12 positions** at the faculties under the programme and by late 2017, four employees had already been hired. One selection procedure was cancelled without being replaced, and the remaining positions will be filled in early 2018. A total of CZK 3.6 million was funded out of the programme in 2017.

In conjunction with **the establishment of a new International Support Office (ISO) under the Rector's Office**, the focus and scope of support for the long-term employment of foreign nationals at MU was laid out. Support is to be provided by the ISO internally throughout the university. In 2017, foreign employees, their families, and potential job seekers took part in **985 consultations**, mostly focused on conditions for their entry and residence in the Czech Republic, labour law issues, and integration activities. **25 Welcome Meetings were held** to inform new employees and their families of registration obligations related to their stay, integration activities, and life at MU, in Brno and in the South Moravian region.

In June 2017, the ISO team was expanded and now includes external contractors who provide assistance and interpreting for foreigners in their interactions with Czech authorities. Assistance was provided this year in 21 cases. An information campaign kept foreign employees updated on regulations affecting the employment of foreign nationals, their obligations during their stay, integration, and social/cultural activities. To present the information clearly, an **online International Employee Guide** was put out in English that provides an overview of the individual steps to be taken before entering the Czech Republic, as well as during the stay. An ISO website was also launched on MU's central website in the *Career* section which includes interactive links to the guide and other useful links.

## 9.4

### Employee Training and Benefits

In June 2017, the **Pedagogical Competence Development Centre (CERPEK) was launched** at MU as a tool to systematically improve the quality of teaching at the university. In September, the first run of a two-semester course took place that provided academics just beginning to teach with a five-day block of lectures targeting lesson planning, classroom management, utilizing new technologies in teaching, student participation in instruction, and evaluation. This theoretical block was then followed by e-learning tasks and application of the acquired knowledge in practice.

Quality in teaching was also the focus of the **Skills for Teachers conference** in June. A broad-based discussion of options for improving the knowledge and skills of young university instructors was initiated, and the results of a qualitative survey in the area were presented, with both teachers and students sharing their experience.

Faculty activities aimed at broadening the employee competencies focused mostly on **language courses** in English, German, French, and Russian. In addition, employees have an opportunity to learn rhetoric and conflict management. The Rector's Office offered its employees a number of courses to enhance their IT skills, manage stress, and develop appropriate assertive behaviour. Managers had opportunities to learn self-development, time management, and leadership.

As in previous years, Masaryk University continued to provide its employees with a standard range of employee benefits. In addition to **catering services for employees** at the university and in the form of meal vouchers (total amount CZK 27.8 million), MU spends significant funds on **supplementary pension insurance** (CZK 15.3 million), **preventive care** and vaccinations (CZK 1 million) and **rewards that recognize life and career anniversaries** (CZK 2.9 million).

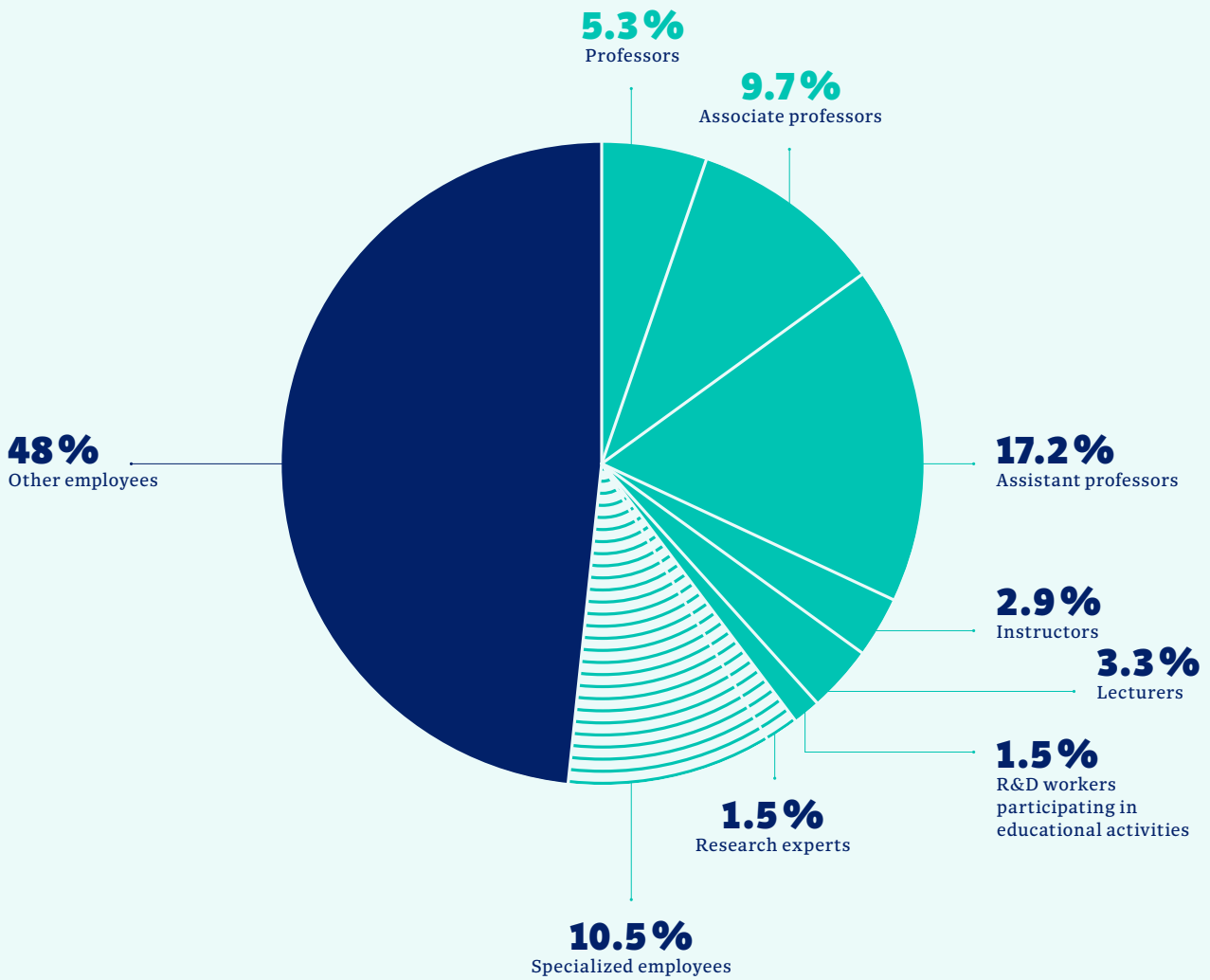
In 2017, a **review of existing benefits** was conducted to discuss a new system of allocation, expansion, and an updated method of utilization according to the needs and life situations of individual employees. Work on the employee benefit system will continue throughout 2018.

Last but not least, one of the goals of the university's personnel policy is to harmonize staff members' family and working lives, another pillar of MU's personnel policy. Wherever the type of work and situation at the department allows, employees may choose **flexible working hours, limited workloads, and home office schemes**. Non-academic employees are entitled to 30 days of leave per calendar year, which is over and above the time dictated by law.

## MU employees

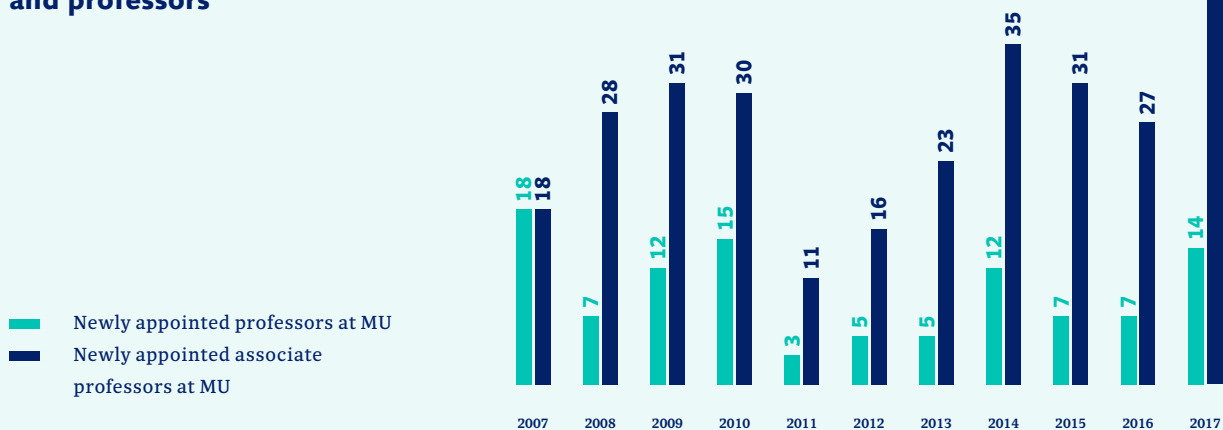


## MU employee qualification structure in 2017

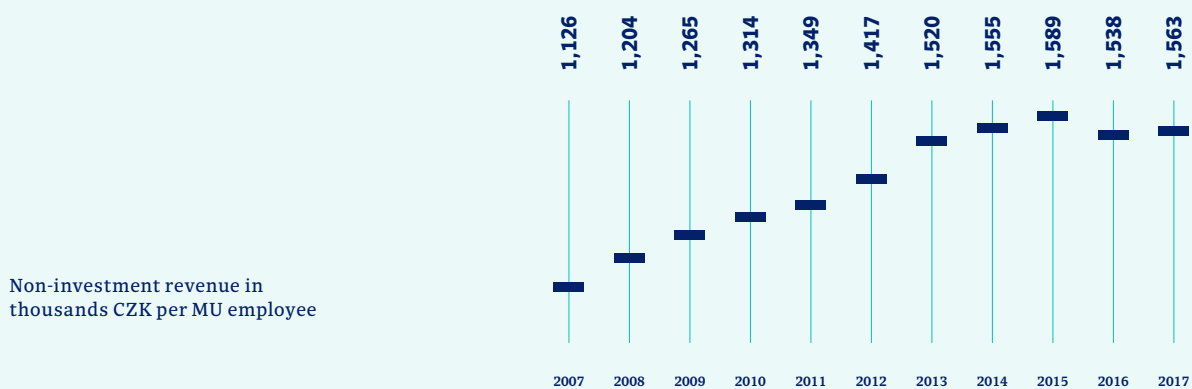




## Number of newly appointed MU associate professors and professors

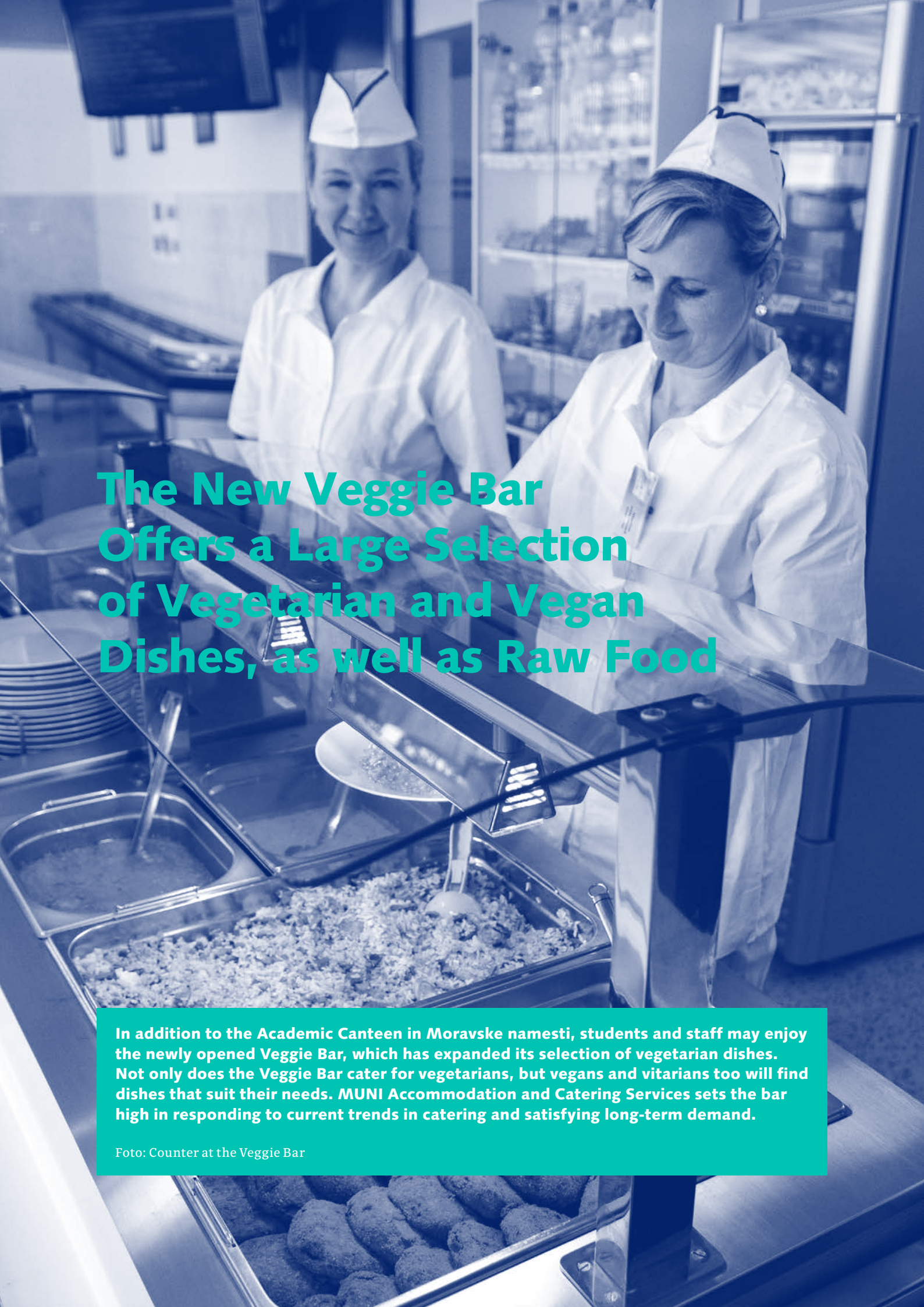


## Non-investment revenue per MU employee



## Mean wages at MU





## The New Veggie Bar Offers a Large Selection of Vegetarian and Vegan Dishes, as well as Raw Food

**In addition to the Academic Canteen in Moravske namesti, students and staff may enjoy the newly opened Veggie Bar, which has expanded its selection of vegetarian dishes. Not only does the Veggie Bar cater for vegetarians, but vegans and vitarians too will find dishes that suit their needs. MUNI Accommodation and Catering Services sets the bar high in responding to current trends in catering and satisfying long-term demand.**

Foto: Counter at the Veggie Bar

Strategic Priority:

# Infrastructure and Institutional Management

# 10

**10.1**

**Support for Project  
Preparation and  
Implementation**

**10.5**

**Financial Balance  
Sheet for 2017**

**10.2**

**University  
Infrastructure and  
Facilities**

**10.6**

**University  
Budgeting**

**10.3**

**Accommodation  
Infrastructure and  
Catering Services**

**10.7**

**Internal Control  
System**

**10.4**

**Building Management  
and Operation  
Efficiency**

**10.8**

**Masaryk University  
Archives**

**10.9**

**Providing  
Information**

# 10.1

## Support for Project Preparation and Implementation

As in previous years, the Office for Development of the Rector's Office supported the preparation, implementation and sustainability phases of projects funded under the structural funds, as well as of development projects. **Support for project submission was provided to more than 50 teams.** To support the work of the project teams, the Office for Development works closely with relevant departments at the Rector's Office and takes part in feedback processes that lead to the publication of methodological materials for project finance and funding, audit, investment, and public procurement.

To ensure that planned calls are targeted in the most effective manner and to streamline administrative reporting during project implementation, the Office for Development communicates with MEYS via its permanent representatives in working groups and negotiates with authorised individuals who are part of the RDIOP implementation structure. Perhaps the greatest success this year was an agreement to use a Magion-designed statement for wage cost reporting. At the end of the year, preparations were launched for a project proposal to be submitted to MEYS's *Support for the Study Environment at the University* scheme. In it, MU strives to make maximum use of available funds to improve the learning environment at the university by refurbishing teaching facilities used by undergraduate students.

**Summary of grant projects prepared in 2017:** By the end of 2017, across all three priority axes that make up *OP Research and Development for Innovations*, **23 projects** in which MU functions as a beneficiary **were supported by CZK 2.5 billion**, and 15 projects in which MU is partner to another entity received CZK 170 million.

Under **PA 1 Reinforcing Quality Research Capacity**, **eight MU projects were approved with a total value of CZK 835 million** and eight partner projects at CZK 117 million. During the implementation period, the university will spend CZK 48 million from its own funds.

Under **PA 2 Development of Universities and Human Resources for Research and Development**, **12 projects received funding amounting to CZK 1.6 billion** in 2017. Two of these projects are strategic and target further development across the university. The university will spend CZK 2 million from its own funds to co-fund these PA 2 projects.

Under **PA 3 Equal Access to Quality Pre-School, Primary, and Secondary Education**, **three MU project applications were approved with a value of CZK 67 million.** As a partner, MU was allocated CZK 53 million to implement seven approved projects. During the implementation period, the university will spend CZK 6 million to co-fund these PO 3 projects.

Under *the Interrg V-A OPs*, **two projects were approved for cross-border cooperation with Slovakia** amounting to €387,000. During the implementation period, MU will provide co-funding of €34,000.

Under *OP Employment*, **two projects were approved and CZK 28 million was allocated.** This obliges MU to provide co-funding of CZK 1.5 million during the implementation period.

In 2017, Masaryk University **participated in seven centralized development projects.** In four, it functioned as key coordinator, and in the three remaining projects as a co-funding partner. The total subsidy received by MU amounted to CZK 11.2 million.

For 2017, MEYS allocated MU CZK 120.4 million to fulfil indicators defined in the Institutional Plan (IP). These were fulfilled through outputs from **25 internal development projects**, and outputs from independent projects carried out by individual faculties and institutes.

As part of IP 2017, another year of a university-wide competition **sponsored by Masaryk University Development Fund** was launched. The Rector decided to allocate CZK 12 million, of which CZK 2.4 million was earmarked for student projects. 306 project proposals were submitted to the competition, of which the evaluation committee selected **154 projects** for implementation.

Also, the **implementation of Muni 4.0 and SIMU+ projects** with horizontal impact across MU was initiated. A central team was established at the Office for Development with responsibility for **MUNI 4.0** project management, and at 14 MU departments 29 special-purpose teams were set up, including an administrative support team. Key achievements during the first year of the project included: establishing a network of faculty quality coordinators, preparing initial documents for the accreditation files, establishing collaboration with foreign institutions, launching the Student Advisory Services centre, and training the first academics in teaching skills and language competencies.

The **SIMU+** project saw several milestones in 2017. The project was approved at the end of March and physical implementation started in April; the Central Management Team located at the Faculty of Medicine was charged with project management. The team set up processes that had been defined in a collaboration agreement concluded between the Central Management Team and individual faculties. During the year, the implementation of six out of ten key activities began.

# 10.2

## University Infrastructure and Facilities

As part of developing and refurbishing MU facilities and technology, processes and activities related to investment construction projects were launched in 2017.

The **Investment Program** that is part of MEYS program No. 133210 corresponds to Masaryk University's Strategic Plan for 2016–2020. It comprises two implemented projects. The first is **Reconstruction and Addition to the Faculty of Arts Site on Arna Novaka St.**, which continued throughout 2017. Total construction costs, including direct supplies, amounted to CZK 331 million, of which MU's contribution totalled CZK 20 million.

The second is an investment project entitled **Reconstruction of a Building of the Faculty of Arts Located at Jostova 13**. The Czech government underwrote the project in the amount of CZK 97 million, and MU's contribution amounted to CZK 11 million. The total usable area gained from the reconstruction is 2,804 m<sup>2</sup>. Construction work was initiated in December 2017 and generated spending of CZK 947,000.

Throughout 2017, MU's requirements and background materials for the new MEYES 2018–24 investment programme were sent to the administrator, amounting to CZK 1.6 billion.

In addition to programme and project funding, Masaryk University spent **CZK 87 million of its own funds on investment construction projects** in 2017. Chief among them was a reconstruction project for a hallway and stairways, including elements for increased fire safety, at the Vinarska Dormitories costing CZK 15 million, a reconstruction project for a lecture hall at the Faculty of Medicine at University Campus Bohunice totalling CZK 4 million, a first-floor office reconstruction project at the Faculty of Law costing CZK 7.8 million, and a reconstruction project for heat exchange stations at the Rector's Office and the Faculty of Education costing CZK 6.5 million.

Concurrent with MEYS investment programmes, academic, research, and educational infrastructure will be completed under OP RDI. The flagship project is **Masaryk University Strategic Investments in Education SIMU+**, consisting of the following subprojects:

**SIMU FMed:** a simulation centre for medical and non-medical disciplines. It is to be located within the Morphology Centre at University Campus Bohunice where 10,510 m<sup>2</sup> will be developed at a cost of CZK 515 million. MU did not select the general contractor or initiate the construction work in 2017.

**SIMU FEA:** reconstruction and refurbishing of selected areas within the faculty building. The first three phases of the construction work were implemented in 2017 and CZK 7.2 million was spent. Furnishings valued at CZK 2.4

million were delivered to the faculty under the project.

**SIMU FSS:** a construction investment project consisting of a reconstruction project and the refurbishment of three classrooms that will serve for simulation instruction. Investment costs are anticipated at CZK 3.3 million. 2017 saw the completion of the documentation necessary to select the chief contractor and interior supplier.

**SIMU FEdu:** a simulation track including typhlo-engineering elements to be constructed in the back track of the faculty at Porici 7. Preparations for the project were underway in 2017.

**SIMU FA:** a recording and acoustic studio and sound laboratories to be used for instruction. The project schedule did not require any additional project design or construction work in 2017.

The **SIMU FSci:** an exploratory hydrogeological well; 2017 saw the well dug, with a value of CZK 0.25 million. The well will be used for research and instruction.

**SIMU TEIRESIÁS:** barrier-free access to FA buildings in Jaselska 18 and barrier-free use of selected sanitary facilities in the FSS building in Jostova 10. Documentation for the selection of the chief contractor was prepared in 2017. Total investment costs were specified at CZK 3.7 million.

**RECETOX RI:** an environmental and biological sample bank, including laboratories and offices. The total usable area to be constructed amounts to 1,099 m<sup>2</sup>. The building will be situated between the existing pavilions A29 and INBIT at University Campus Bohunice and is conceived as a two-storey underground structure. The total required costs, including direct supplies, amount to CZK 124 million. The documentation for the selection of the chief contractor was prepared in 2017.

The **Reconstruction and Expansion of the Botanic-ka Street Complex** project plan addresses the need to complete the necessary facilities for the development of collaboration in education, research and innovation in ICT. 2017 saw a decision made to fund the addition to the university complex from the new subsidy investment programme No. 133 220. Estimated costs for completion of the construction project and acquiring initial furnishings stand at CZK 480 million. The general construction project designer was selected in 2017.

**Pohansko Research Station near Breclav:** a reconstruction project. In 2017, a construction permit was obtained and a contract concluded with Lesy CR, the owner of the land where the station is located.

## 10.3

### Accommodation Infrastructure and Catering Services

**Accommodation and Catering Services**, as a special purpose unit of Masaryk University, provides accommodation and catering to university students, employees, and guests. (Its services are available to the public on a commercial basis.) As a priority, the CZK 10.6 million profit generated was invested in the reconstruction and repair of dormitory buildings. **Veggie Bar**, a new student cafeteria, was launched into operation. It opened at the beginning of the winter semester, September 11 and is the first self-service cafeteria among university facilities administered by the Accommodation and Catering Services. In total, MU catering facilities **served 1.3 million student meals** (re-calculated for subsidy according to the J indicator), the best score among public universities in the Czech Republic.

Accommodation was provided in **12 university dormitories in various locations in Brno featuring 4,209 beds**. An additional 228 beds are available to the public, MU employees and lecturers in UNI hotels. MU students and employees may also make use of University Centre Slapanice, and the Cikhaj Guesthouse, where visitors come for recreation and instruction. A significant proportion of revenue is generated by hotel-type accommodation for the public. Over the summer months, general reconstruction of the A3 building in the Vinarska Dormitories was completed. As a result, accommodation fire safety standards were significantly increased. In other dormitory buildings, student rooms were refurbished as scheduled. In addition, **preparations were underway to cover all dormitory buildings with WiFi**.

Students and employees were given meals **at 14 catering facilities**: the cafeteria in Vinarska near FEA, the Academic Restaurant at the Rector's Office building in Moravske namesti, the cafeteria in Veveri St. in the FSci building, and the Academic Restaurant located in the Campus Square shopping centre, in addition to **seven bistros, a cafe, a pizzeria, the Academic Canteen** distribution point, and the full service **Academic Club** restaurant. Weekend and holiday services are provided by Academic Restaurant and Pizza Nostra. Daily, at peak times, up to ten thousand warm meals were prepared. Students were able to choose meat, low-calorie dishes, as well as gluten-free, vegetarian, and lactose-free meals prepared using regional products. The wide range of available meals, including made-to-order dishes, is presented on site on LCD screens in Czech and English, online, and as part of the **MobilKredit mobile application**.

## 10.4

### Building Management and Operation Efficiency

**Building Information Modelling (BIM)** refers to the process of developing and managing information relevant to a given building and its technologies throughout its life cycle. For a number of years, MU has been developing and managing building data in the form of digital passport documentation, which consists in three basic registration bases: construction passport, technology passport, and external surface area passport.

**BIM Data Warehouse** was regularly updated throughout 2017, and expanded to include additional data, for instance, data from the passportisation of fire extinguishers and hydrants done throughout MU, and data related to graphical attachments to *Fire Fighting Documentation* instruction sheets applicable to all of University Campus at Bohunice.

Users may access data online via the KOMPAS app. Mobile devices make use of the **new MUNI Buildings application**, and, in addition, MapGen may be used to generate graphical output based on user requests.

**Building Management System MU (BMS)**, is an integrated information system designed for the management, monitoring and subsequent optimization of the operation of MU building technologies. Individual building technology components (heating, cooling, ventilation, lighting, CCTV, fire protection, security systems, etc.) are connected to the technology network and communicate through the open BACnet protocol which integrates different manufacturers' technologies into a single comprehensive system.

Activities associated with the development of MU BMS include consultancy and inspections performed during the course of the design and deployment of technologies in individual buildings. Methodology for access and security systems was prepared in 2017.

As part of **Central Facility Management**, MU carried out a review of existing integrated operational services. Services related to energy (Administration of MU Transformer Stations, Inspections and Tests of MU Fire Extinguishers and Hydrants) were prepared for integration in 2017 to complete the integration process. In the energy area, a technical analysis assessing the condition of boiler rooms and transformer stations was done to prepare background materials used to schedule repairs and reconstruction. Further, **studies of alternative heating sources** were prepared aimed at reducing energy consumption, especially in the highest energy-demand buildings. The key achievement in 2017 was a study for the installation of a heat pump at University Campus at Bohunice, aimed at reducing heating and cooling costs.

## 10.5

### Financial Balance Sheet for 2017

Masaryk University's total non-capital earnings for 2017 stood at **CZK 6,371 million**, which, compared to 2016, represents an **increase of CZK 261 million**. Costs in 2017 amounted to **CZK 6.3 billion**. For 2017, MU recorded a profit of CZK 72 million after tax (i.e., 1.13% of total MU revenue).

Non-capital contributions and subsidies from the relevant chapter of the MEYS totalled CZK 3,491 million (a year-on-year increase of 6.6%) while contributions and subsidies from other state budget chapters and from local authority budgets stood at CZK 577 million (up 7%) CZK 305 million was gathered from abroad (up 20.2%), and structural fund income amounted to CZK 146 million. Public resources from the national budget and from abroad contributed **CZK 4.373 billion in non-investment funds** (up 1.5%).

Non-capital investment funding provided by the Ministry of Education, Youth and Sports in 2017 for institutional support amounted to CZK 2371 million, i.e. 37.2% of total MU revenue. Non-capital subsidies for teaching (indicators A+K) stood at CZK 1.767 billion (up 3.9%); MU received an additional CZK 604 million in institutional support (up 6.9%).

A total of CZK 24 million worth of non-capital subsidies for student accommodation and catering was also provided (down 2.7%).

**Non-capital research and development funding amounted to CZK 1.878 billion** (year-on-year growth of 11.3%): a total of CZK 1105 million was provided by MEYS (up 36%), CZK 552 million came from the national budget as well as local and regional authority budgets (up 15.7%); international research received an additional subsidy of CZK 158 million (up 68.1%), and RDIOP subsidies amounted to CZK 63 million. Non-capital research and development funding stood at 28.8% of Masaryk University's total revenue for 2017.

**MU revenue from non-public sources amounted to CZK 2.064 billion** in 2017 (up 0.4% vs. 2016): CZK 1.876 billion comprised revenue from principal university activity (down 2.8%), and CZK 188 million from supplementary activities (up of 32% mostly attributable to changes in reporting methodology). Self-generated income and income from supplementary activities amounted to 32.4% of total non-capital revenue.

An inventory **conducted by MU in 2017 shows total assets with a purchase value of CZK 16.684 billion** (a year-on-year increase of 1.3%) of which: CZK 16.361 million was in long-term tangible assets (up 1.3%), and CZK 323 million in long-term intangible assets (up 0.6%). Total depreciation of assets amounted to CZK 6.405 billion. The total proportion of depreciation stands at 38.4%.

## 10.6

### University Budgeting

After fundamental changes to MU's budgeting procedures for 2017, it was crucial for MU to maintain the trend set in 2018 and minimize further budgeting modifications.

Individual modifications to MU internal regulations **reflect changes in the structure of performance-related MEYS funds** for 2018, as well as the MU Strategic Plan.

The most important change, which copies a change made by MEYS, is that the *Graduates* indicator was replaced with a new *Graduation Rate* indicator. The latter follows natural persons and the progress they make in a particular degree programme. This new indicator is based on the number of graduates but reflects the degree of their study-related failure, too.

Another change was a modification to the weighting of the RUV (artwork output) indicator that was updated from 0.04% to 0.67% based upon the real value of allocated RUV points for MU. (0.63 of a percentage point was shifted to the RUV from the RIV indicator).

The indicator formerly called the *Foreign Person Percentage* indicator has now been divided into *Foreign Student Percentage*, weighted at 5%, and *Foreign Staff Percentage*, weighted at 10%. On a practical level, this change maintains the existing procedure under which **MU emphasises internationalisation, expressed by the number of foreign students and staff members**, in contrast to MEYS, for which the 2018 forecast no longer includes foreign students.

The last change to performance-related areas consisted in the calculation procedure used for the *Mobility* indicator (outgoing and incoming students participating in mobility programmes). Originally, incoming students were registered as CST (university-wide studies). Now, they are matched with their respective faculties: 50% based upon the ratio of registered credits, and 50% based upon faculty contracts concluded. As a result, the allocation of funds for this indicator has been made more specific.

However, the greatest impact on individual faculty budgets will come from increased total contributions to MU's instructional activity under Budget Area I of 242 million, an increase over the 2017 amount of 13%, and from a hike of CZK 101 million (16%) in the contribution to the IP.

## 10.7

### Internal Control System

The principal criterion for the Masaryk University internal control system's efficacy is the **financial inspection system**, with **internal audit** as a second key component.

The efficiency of the internal control system at MU is ensured by integrated methodological procedures that include a system for competency assignment across all linear and project management, and a transparent risk management system. Additional strengths include a highly functional electronic workflow, and a transparent system of ongoing and follow-up financial inspections.

**Internal auditing** is performed in accordance with the Act on Financial Control, the MU Internal Auditing Statute, and international auditing standards. As part of standard auditing that is focused on financial and project management, risks, and internal system evaluation, internal auditing **regularly monitors and evaluates MU's internal control system and the implementation of measures adopted**. The primary objective of all project audits is to assess the functionality of the internal control system. At the same time, the severity of any discrepancies found is assessed in relation to the significance of the risk in question; the internal audit is based on financial corrections carried out as a result of inspections by public administrative agencies.

A majority of all auditing activity carried out in 2017 included project sustainability auditing linked to RDIOIP. Their subject matter focused on areas related to funding, project input and goal transparency, and the implementation of mandatory monitoring indicators.

No obvious risk potential or significant inaccuracies were recorded, which is also testified to by the results of inspections carried out by public administrative agencies.

In 43 external inspections and project audits, **10 project auditing authorities audited CZK 15 million at MU**, 44% of which represented OP programmes. Of the total sample of CZK 7.9 billion verified during external inspections and audits in the 2011–2017 period, only 0.7% represented payments for breach of budgetary discipline, including penalties.

In view of outcomes from internal auditing, management, and external inspections, it may be said that the key financial control requirements, i.e. demonstrability and the *'four eyes and two signatures'* principles for any financial operation, have been met. The internal control system is functional and risk has been kept at a reasonable minimum.

**No corruption was found at Masaryk University.**

## 10.8

### Masaryk University Archives

The university archives are accredited specialized archives tasked with safeguarding archival materials generated by the university and providing public access. A total of 18 discarding procedures and five non-discarding procedures were conducted in 2017, providing the MU Archives with the opportunity to examine 130 metres of documents, 78 metres of which were subsequently included in collections. As part of a non-discarding procedure, the archives **received the personal collection of Miroslava Vicherkova**, Emeritus Head of the Department of Physiology and Plant Anatomy of FSci MU, as well as supplements to collections obtained from Germanist **Zdenek Masarik**, literary historian **Dusan Jerabek**, and philosopher **Josef Tvrdy**. By the end of the year, the archives possessed 232 funds and collections covering 2,350 meters and had processed 90%.

The archives gradually classified and processed almost 75 meters of material, mostly coming from administrative collections. **The general public may now access an extensive collection from historian and archivist Jan Janak**, as well as supplements to collections of Arne Novak, Vaclav Richter, and Josef Tvrdy. The Research Room attracted 61 researchers, three of whom were from outside the Czech Republic. **They visited the Research Room 141 times**. 231 searches were made for official purposes and 65 for private use. In addition to these visits, the archives provided extraordinary help in the preparation of background materials intended for events and publications related to the 100 year anniversary of the university.

An important step was the acquisition of a **user license for ELZA**. This software prototype enables archive tools to be devised that meet current legal requirements as well as the *Basic Principles of Archive Material Processing*. The Archives initiate preparations ahead of time for the definitive transition to the new Basic Principles, and the **new format for electronic archiving tools**, mandatory as of 1 January 2020 for all archives in the Czech Republic.

Archival documents were provided for various publications as well as for two exhibitions: **Masaryk as a Phenomenon**, organized by the National Museum, and **The Experience of Exile. The Destinies of Exiles from the Territory of the Former Russian Empire in Interwar Czechoslovakia**, organized by the Museum of Czech Literature. The Archives also participated in preparing an online *Encyclopaedia of the History of Brno* and working closely with the South Moravian Regional Authority took part in **Brno Museum Night** for the first time, organizing commented tours that attracted enormous public interest.



# 10.9

## Providing Information

Since MU is a university, information provision is its leading, and in many cases most frequent, activity.

The greatest measure of information was provided directly by MU staff, depending on expertise, in response to various types of requests. Answers to these requests were not mandatory under the law. **703 requests for information** sent to the general MU email address [info@muni.cz](mailto:info@muni.cz) were processed, and **more than 3,600 requests for information** were submitted to [prihlaska@muni.cz](mailto:prihlaska@muni.cz), an email address designated for communication with applicants.

To process written requests for information mandatory by law, guidelines were prepared in accordance with the Act on Free Access to Information, and published at [muni.cz/general/information\\_providing/mu\\_regulations](http://muni.cz/general/information_providing/mu_regulations).

**14 written requests for information were submitted** during 2017 and processed by the statutory deadlines.

No petition was brought before the courts during the year that charged Masaryk University had failed to provide the information required under law. In this period, neither Masaryk University nor any of its employees were subject to any sanctions for failure to comply with the law.

### THE FOLLOWING INTERNAL REGULATIONS OF MASARYK UNIVERSITY WERE MODIFIED IN 2017:

- The new MU Academic Senate Election Code was published as of 1 January 2017.
- The MU Academic Senate Rules of Procedure were published as of 10 January 2017.
- The MU Scientific Board Rules of Procedure were amended as of 1 February 2017.
- The MU Lifelong Learning Regulations were amended as of 1 February 2017.
- The Masaryk University Internal Wage Regulations were amended twice: as of 29 December 2017, and 1 April 2017.
- The Masaryk University Internal Evaluation Board Rules of Procedure were published as of 11 April 2017. The MU Scholarship and Bursary Regulations were amended as of 1 July 2017.
- The MU Study and Examination Regulations were amended as of 1 September 2017.
- The new MU Habilitation Procedure and Professor Appointment Procedure Regulations were issued as of 1 September 2017.
- The new Masaryk University Educational, Creative and Associated Activities Quality Assurance and Internal Evaluation System Guidelines were issued as of 1 September 2017.

**Total non-investment MU revenue**

Non-investment revenue in thousands CZK



**324,227**

MU fund depletion (excluding subsidy special-purpose funds)

**1,354,455**

Own sources and supplementary activity

**1,469,893**

Other public sources for R&D

**6,371,305**

Total non-investment MU revenue in thousands CZK

**Non-investment revenue breakdown for 2017 in thousands CZK**

**1,766,794**

Educational activity contribution (indicators A+K)

**840,420**

Other public sources for educational activities

**615,516**

Institutional R&D support

**6%**

Other costs

**52%**

Personnel and social costs

**Costs breakdown in 2017**

**18%**

Subsidy write-offs and transfers to funds

**9%**

Material, utilities, maintenance, insurance

**15%**

Services, travel, scholarships

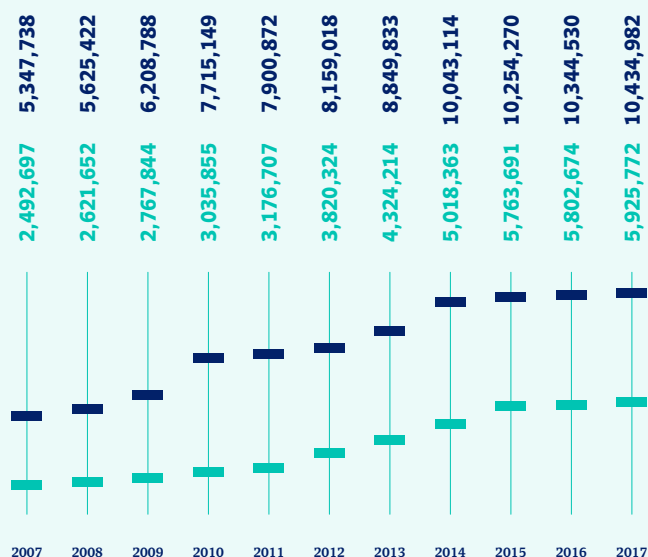
## Investment expenditures at MU

Investment expenditures  
in thousands CZK



## Immovable and movable MU assets in thousands CZK

■ Immovable assets  
■ Movable assets



## MU facilities with year-round use in 2017

# 123

Useful area of these facilities

## 421,192 m<sup>2</sup>

Net useful area of these facilities

## 242,387 m<sup>2</sup>

Classrooms and laboratories

## 58,962 m<sup>2</sup>

Outdoor sporting grounds

## 9,309 m<sup>2</sup>

Libraries, archives, reading rooms

## 9,420 m<sup>2</sup>



# University Initiates Cybersecurity Collaboration with NAKIT

The National Agency for Communication and Information Technologies (NAKIT) and Masaryk University have joined forces on cybersecurity. They have concluded a collaboration agreement to address ICT and cybersecurity issues at an expert level. Collaboration will also cover the training of specialists in the field and the exchange of data, information, and legal analyses.

**Strategic Priority:**

# **Information Systems and IT Support**



**11.1**

**Development of  
Information Infrastructure  
and Information Systems**

**11.2**

**Masaryk University  
Information System**

## Development of Information Infrastructure and Information Systems

Masaryk University possesses an extensive cloud information infrastructure (e-infrastructure) operated by the Institute of Computer Science (ICS). Based on more than **135 km of core optical cable network**, MU's optical backbone core has a throughput of 3x40 Gbps. Stepwise replacement of active elements increases the throughput of end connections to 1 Gbps at all MU sites. Faculties and other sites are usually connected via redundant 10 Gbps connections, which give the university network a high throughput and make it highly stable and robust. The wireless portion of the network comprises approximately **1,000 access points** connected to **eduroam**, enabling access for MU students and staff as well as visitors from abroad. In late 2017, a proposal was put forth to qualitatively increase active elements across-the-board and to add to their numbers such that there are more than 1,000 elements conforming to the 802.11ac standard. This will significantly boost the throughput of the wireless network and thereby open new opportunities for studying and working at MU.

**The MU cloud infrastructure** that runs on VMWare and OpenStack was reinforced by 17 new servers in 2017, some of which feature GPU accelerators increasingly used for scientific calculations and neural network experiments. Furthermore, storage capacity was expanded by additional 360 TB to a total available capacity of 2900 TB. Both the design and implementation of the infrastructure make use of results from the **CERIT-SC** research infrastructure, and close collaboration with **CESNET**. The MU cloud infrastructure thus provides its users with seamless access to the capacity of the research infrastructure noted above: CERIT-SC possesses more than 5200 computing cores and unique SGI UV2 systems with 6 TB of operating memory.

The acquisition of a secondary user data storage facility of 2,000 TB at Komenskeho namesti increased the resistance of MU's storage capacity to outages. Data from primary storage facilities at the ICS on Botanicka St. are continuously and transparently transferred to the secondary storage facility, which is capable of replacing them practically immediately should a fatal outage occur. As a result, even during outages users need not wait days to weeks to recover their data from backup sources. (Such delays are unacceptable to most users.)

Gradually, use rose of the Microsoft **Office 365** cloud environment. The setting up of digital identities for all staff and students allowed **Yammer** to be used as a university-wide communications platform. Perun, the central system for user administration and access management currently under development, has more than 76,000 user accounts on record.

The **university portal**—the primary entry point to the internal information system—continued in development. Together with the unified login, the portal will bring users a clear orientation and access to university systems. The unified login has been used almost a million times in its pilot phase since 2017. The CSIRT-MU security team provides MU IT system security.

Automated tools helped CSIRT-MU register almost **90,000 attempts at disrupting security**; only 169 cases had to be dealt with manually. More than 1700 MU users were notified of the possible leakage of their passwords.

The ICS also develops a website builder that provides for the unified, efficient development of official university websites. The website builder was used to create new websites for the Faculty of Arts and the Faculty of Economics and Administration in 2017.

The **MU Information System for Economics and Administration (INET)**, whose core comprises two closely interconnected systems—EIS Magion (by third-party provider Magion, a.s.) and Inet MU (developed in-house by the ICS)—provides comprehensive support for university administration in the area of economics, HR and wages, research, asset management, and operations. Operating unit and building management staff use the website-based **GIS Kompas**, also developed by the ICS.

EIS **Magion** development takes place in conjunction with the seven universities participating in the MagNet network coordinated by MU. Magion development has responded to changes in the law, with particular attention paid to electronic sales records and preparing for the Europe-wide GDPR that enters into force in 2018.

For most university employees and students, INET is the interface of choice for accessing the university system for financial and administrative concerns. This year, HR and wages components were developed in INET to reinforce support for the **Paperless Office** concept in these areas. Specifically, modules were created to conclude and modify employment contracts and agreements, and digital support was provided for bonus proposals and approval and systematisation. Also, a module for scholarship recommendations and payment was created. In terms of finance, development focused on supporting central purchasing and checking the financial soundness of economic contracts. Work was also initiated on a registry as required under the GDPR.

## Masaryk University Information System

The Faculty of Informatics-based ICS is responsible for all academic administrative procedures at the university via the **MU Information System** (IS MU). The system comprises a number of administrative and communication services, electronic academic support, publicly accessible courses, science and research services, alumni services, an online Shopping Centre, thesis, publication and document depositories, and registers of electronic applications, administrative tasks, and agreements.

Development undertaken in 2017 focused on **implementing modifications stemming from the amended Act on Higher Education**, preparing the transition to the new structure of the academic programme, and the new MU Study and Examination Regulations. New data structures were implemented and a number of processes were defined to do with internal evaluation. Procedures and tools were proposed for gathering the instructor data needed for accreditation purposes and for evaluation, such as course forms and personal information sheets. New applications were developed for those responsible for preparing background materials, or else existing applications were modified Course Catalogues, etc. Applications were modified to use integrated data from other parts of IS MU. The system thus allows the generation of comprehensive data for the accreditation process. Individual tasks are carried out using the Document Office, and the output serves as background materials for evaluation meetings.

A great effort was made to develop a new design for IS MU. **The new responsive design** allows users to comfortably control applications via their mobile devices and respects MU's unified visual style. Among its features are a clear navigation interface, adjustable menu, autocomplete search, and colour design options. In addition to the redesigned title page, other areas were reworked (Student, Contact, E-Application, Interactive Syllabi, and the Login page). Besides these areas, a new File Manager was published that offers a user-friendly environment with an updated control system, easy *drag&drop* file upload, and mobile browsing. On the system level, **storage for normative documents was created**, increasing document traceability and access for academics.

A fresh design and new functions were added to the **E-Application** launched in November 2017. Applicants may now attach documents to their applications, something that could only be done in paper form previously. Applications may now also easily be submitted using mobile devices. The Office for Studies (Registrar) may now provide applicants with information on the admissions schedule, thereby streamlining communication between

the university and applicants and minimizing paper correspondence.

The **MU Shopping Centre** took in CZK 164 million in turnover during the year; in its ten years of existence, it has taken in CZK 1.34 billion. New features added to the MU Shopping Centre focused on cash-register applications that were installed, on a step-by-step basis in the libraries of the Faculty of Arts, Faculty of Law, and Faculty of Economics and Administration. The MU Shopping Centre cash-register can now accept payments for reader registrations, fines, inter-university borrowing, and other new services (printing, photocopying, and promotional item sales). Due to changes in the law and regulations, the calculation of exchange rates was modified, as were statements offering an overview of income and expenditures required by the Financial Authority.

There were **162,404 files** in the **Document Office** application, comprising **223,896 documents**, processed on the basis of defined rules employing 1352 custom user categories. 28,256 users worked actively with these documents in 2017. **Categories tied to electronic document delivery saw the most development**, particularly those concerning study-related issues as indicated under the amended Act on Higher Education. In all, a total of 51,122 documents were electronically signed in the Document Office app.

In 2017, the IS MU development team led a centralized inter-university development project entitled *Development of Long-Term Storage of Digital Documents, Establishment of Digital Archives and Their Relation to the Amended Act on Higher Education with Respect to eIDAS*. The project targeted the long-term storage of digital documents while respecting the requirements of Czech law and EU directives. As a result, Masaryk University **built its own digital archive as part of IS MU**.

The IS MU development team operates the **Theses.cz**, **Odevzdej.cz**, and **Repozitar.cz** plagiarism detection systems, and the **PravyDiplom.cz** verification system for other universities, institutions of higher and secondary education, and public authorities. Search algorithms in these systems were improved along with support for control via mobile devices and other functionalities that serve inter-university collaboration in verifying document originality. A total of 3.8 million files were entered in these plagiarism detection systems and checked, 90,000 of which were checked by the public.

Total visits to

www.muni.cz

3,028,000

visits in 2017

Emails at MU

40 million

emails delivered in 2016  
(approximately 110,000 emails per day)

52 million

emails delivered in 2017  
(approximately 143,000 emails per day)

65 million

emails rejected for security reasons

88 million

emails rejected for security reasons

152,300

documents in 2016

(i.e., 63% of the total 242,900 documents)

171,700

documents in 2017

(i.e., 65% of the total 263,700 documents)

Number of documents in Inet and Magion systems electronically signed using the Signature Book application

Storage capacity available to MU employees



2,900 TB

2017

Turnover in the SUPO

142 million CZK



## MU Information System in numbers in 2017

# 1,018,870,715

Total number of IS MU visits

## 58,047

persons used IS  
MU regularly

## 75,820

persons accessed IS  
MU occasionally

## 4,179,011

Maximum number of IS MU  
pages opened in one day

As of 31 December 2017, the  
IS MU data pool held ca.

## 119 million

files amounting to a total of

## 24.5 TB.

IS MU data is  
recorded in a total  
of **2,220** database  
tables subdivided  
into **185** categories.

Total number of  
scripts (individual  
programmes) in  
the IS MU: **2,926**.

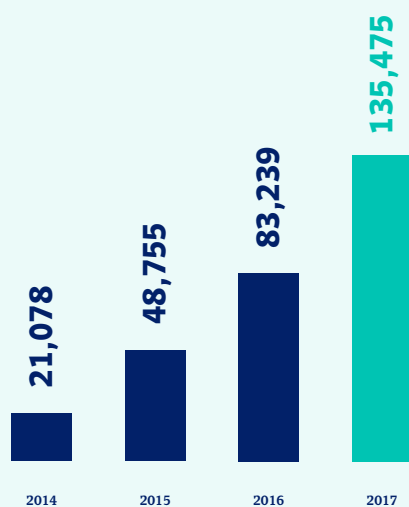
Number of IS  
MU source code  
modifications: **8,228**.

Maximum server  
throughput:  
**1,233,960** requests  
processed per hour.

Total server  
downtime:  
approximately  
**30 minutes**.

### Electronic application processing using the records service application

Number of purely digital documents



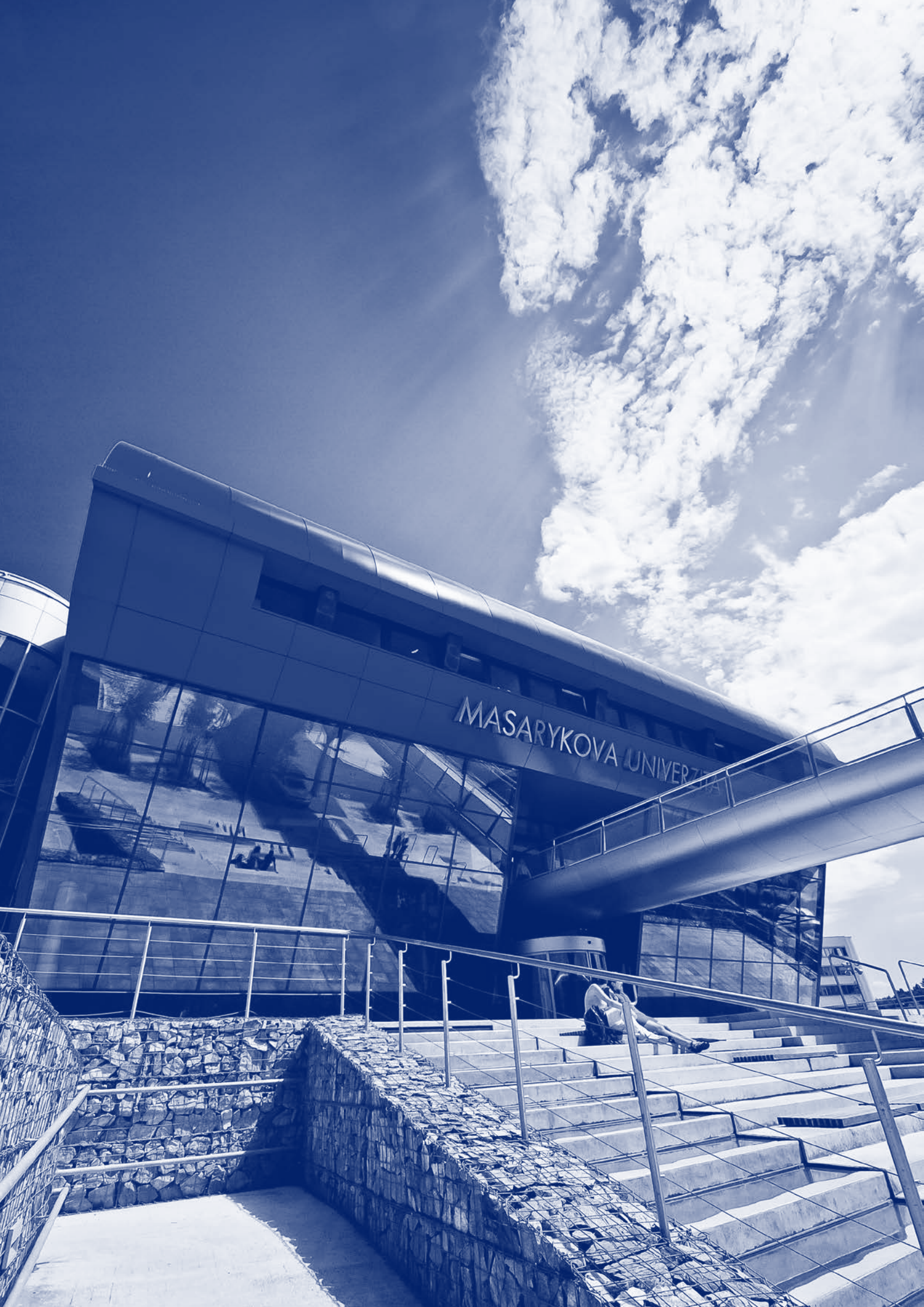
### MU network security

# 88,230

**security incidents were addressed  
by the CSIRT-MU team in 2017.  
(i.e., on average 240 incidents per day)**

Of which, 99.8% were resolved automatically,  
and only 169 required manual attention.

**660** information reports were  
sent to local MU administrators.



MASARYKOVA UNIVERZITA

# MU Faculties and University Institutes

# 12

**12.1**

**Faculty  
of Law**

**12.4**

**Faculty  
of Arts**

**12.8**

**Faculty  
of Social Studies**

**12.2**

**Faculty  
of Medicine**

**12.5**

**Faculty  
of Education**

**12.9**

**Faculty  
of Sports Studies**

**12.3**

**Faculty  
of Science**

**12.6**

**Faculty of Economics  
and Administration**

**12.10**

**Central European  
Institute of Technology**

**12.7**

**Faculty  
of Informatics**

**12.11**

**Institute of  
Computer Science**



## A Doctoral Student at the Faculty of Law Is Head of the European Union of Deaf Youth

**Jana Havlova, a doctoral candidate at the Faculty of Law, MU, was elected President of the European Union of Deaf Youth at the end of summer 2017. A Masaryk University student thus stands at the helm of the umbrella organization for all national associations in the member states of the Council of Europe, and coordinates collaboration between them. Havlova has herself been deaf since birth. She makes use of a cochlear implant and lip reading to communicate. Both in her study and in her new position, she has decided to specialize in the protection and maintenance of human rights and fighting discrimination.**

Foto: Jana Havlova, doctoral student at the Faculty of Law

# 12.1

## Faculty of Law

The faculty's core field of study is *Law*, implemented with in the *Law and Legal Science* master's degree programme with **2,126 students enrolled** in 2107, 416 of whom received the title of Mgr. The faculty also implements the three three-year bachelor's degree programmes *Legal Specializations* and *Public Administration*. **3,252 applications** were submitted in total to study in the various bachelor's and long master's programmes. The portfolio of master's fields of study was expanded to include a follow-up master's degree in *Public Administration*, offered as a combined study programme. Graduates of the master's degree programme in *Law* may sit the state 'examen rigorosum', and successful graduates receive the title JUDr. A doctoral degree in *Theoretical Legal Sciences* is also available both full-time and in combined form.

The faculty gives its students **access to the largest law library in Central and Eastern Europe**, including a digital library that preserves the faculty's historical book collections, the European Documentation Centre, newly **reconstructed classrooms, and a mock courtroom**.

The faculty is the principal investigator in the **Transitional Jurisprudence** project. With this project, being implemented in conjunction with the Institute of State and Law of the Academy of Sciences of the Czech Republic, the faculty aims to build excellent new doctoral degree programmes targeting research: *Legal Theory and Public Affairs*, *Intellectual Property*, *Comparative Company – Foundation and Trust Law*, and *Comparative Constitutional Law*.

The faculty's efforts at internationalisation centre on collaboration between individuals and between individual fields of study, and at the institutional level, student and staff participation in the ERASMUS+ exchange programme. The number of academics and students coming from abroad under exchange programmes has been on the rise. The faculty welcomed **more than 40 guest foreign lecturers in 2017**. The number of courses taught in foreign languages increased to 90 in 2017. Under the Erasmus+ programme, the faculty concluded **contracts with 110 universities from 28 European countries**.

2017 saw **ties deepen with North American and Canadian universities**, as well (UNLV William S. Boyd School of Law – USA, Thompson Rivers University – Canada), and with Uganda Christian University (Uganda). A new contract was concluded with O.P. Jindal Global University (India), Yaroslav Mudryi National Law University (Ukraine), and National Taiwan University (Taiwan).

The Department of Legal Practice and Clinics organizes activities that develop students' hard and soft legal skills and improve their abilities and options for their future careers. The department works closely with a host of reputable law firms, nonprofit organizations, and private entities. It also coordinates internships that develop the practical skills and knowledge of participating students.

The faculty organizes the **annual Alumni Meeting**, and the **Representative Ball of the Faculty of Law**, 2107 being the 45th year. The faculty strives to develop communication and information platforms through the faculty and alumni Facebook page, and other social networks. The faculty once again organized **Days of Law**, an annual international conference that provides an opportunity for meeting significant alumni. 2017 was the 11<sup>th</sup> year of the event. In addition, alumni are welcome at the *Law at the Highlands sporting event*.



## The 'Growing Femoral Endoprosthesis' Wins Czech Idea of the Year

Scientists at the Faculty of Medicine spent several years developing an endoprosthesis that will improve the life of patients with bone tumours. Bone tumour diagnoses are more frequent among children, but the illness is difficult to treat in this age group because of the children's continued growth. The endoprosthesis developed by surgeon Pavel Janicek and his team is unique because it functions as a constructor set and may be expanded simply. The Technology Agency of the CR bestowed the Solution for the Quality of Life award on the growing femur endoprosthesis in September 2017. The public then voted for Pavel Janicek to receive the Czech Idea award. The Kladno firm Beznoska has included the growing endoprosthesis in its production of individualized tumour endoprostheses, and it has been implanted in two paediatric patients.

Foto: Pavel Janicek, leader of the team that developed the endoprosthesis for the growing femur

# 12.2

## Faculty of Medicine

The Faculty of Medicine offers a wide range of bachelor's, master's, follow-up master's, and doctoral degree programmes. Interest in studying at the faculty continues to be high: **7,862 applications for the faculty's bachelor's and master's programmes were submitted in 2017**. 3,134 were for the *General Medicine* programme, and 1,295 were for the *Dentistry* programme. A total of 891 students enrolled, 317 in General Medicine and 49 in Dentistry.

In addition to the medical master's programmes above, the faculty **offers education for non-physician health-care staff** in several three-year bachelor's and follow-up master's degree programmes (*Physiotherapy, Dental Hygienist, Nutrition Therapist, Optics and Optometry, Orthoptics, Radiology Assistant, Laboratory Assistant, Paramedic, General Nurse, Midwife, Intensive Care, Nutrition Specialist, and Optometry*). In all, **3,939 students** studied at the Faculty of Medicine in undergraduate programmes in 2017.

At the **Open Day** held by the faculty, **an unprecedented 1,500 applicants** learned about studying at FMed, with most programme and department leaders present. Excursions to selected departments for interested candidates followed. The faculty also offers a preparatory course taught by FMed teachers for the entrance exams that targets secondary school students. (The course is taught in Czech and English.) In 2017, **for the first time ever**, a 20-week **Foundation Course** was taught at the Faculty of Medicine. It offered intensive instruction in chemistry, biology, physics, and Czech to prepare foreign applicants for entrance examinations to the General Medicine and Dentistry programmes. 30 students, most from Japan and the United Arab Emirates, participated in the course, and 20 of those who completed the course succeeded in the entrance examinations and were accepted to the faculty.

As a result of legislative changes, 2017 saw the beginning of a process that will see most fields of study converted into degree programmes, as well as the launch of the **new Embryologist in Healthcare master's programme**.

In terms of internationalisation, the faculty has offered **accredited instruction in English for many years in its General Medicine, Dentistry, and Physiotherapy** programmes. Instruction includes the basics of Czech to facilitate communication with patients. Overall, **students from 51 countries**, 16 of which are EU countries, study in the English-language degree programmes. Incoming students, particularly those who participate in the Erasmus+ programme, also partake in FMed English-language programmes. In all, **626 foreign students studied in the faculty's English-language programmes in 2017**.

33 projects were submitted for a competition publicized by the **Czech Health Research Council**. Two submitted by FMed directly and 3 on which FMed was a co-proposer won grants, making **five projects or 15% that received funding**. The total amount allocated over the course of the projects by the Czech Health Research Council was CZK 25 million. The faculty also won **four projects funded by the Czech Science Foundation (CSF)**, worth a total of CZK 23.6 million. Doctoral graduates may participate in the **Junior Researcher** grant scheme organized by the faculty. In 2017, the scheme funded **21 projects** for a total of CZK 7 million.

Masaryk University's priority project under the RDIOP is the **construction of a Medical Simulation Centre at the Faculty of Medicine (SIMU)** situated on the university's Bohunice campus. SIMU will be a unique teaching facility providing practical instruction to medical students.



## Faculty of Science Student Scores High in International Awards Programme for Bachelor's Theses

**Michaela Gregorova is a biology student working in Vitezslav Bryja's laboratory, where she focuses on research into chronic lymphocytic leukaemia. Her bachelor's thesis, in which she sought out potential medicaments, scored well in the influential Undergraduate Awards. She was among the top ten percent in the Life Sciences category, making her the third FSci student in a row to achieve success in the programme. Students from around the world sent work in; this year, the evaluators judged almost six and a half thousand theses.**

Foto: Michaela Gregorova, award-winning student at the Faculty of Science



# 12.3

## Faculty of Science

The Faculty of Science offered **57 bachelor's and 63 follow-up master's programmes** in 2017. Most degree programmes were accredited only as full-time programmes. Only three bachelor's and two follow-up master's degree programmes were available in combined form.

A total of 2,394 applicants **submitted 3,320 applications** for bachelor's programmes at the Faculty of Science in 2017. Of these, 1,986 were admitted and 938 enrolled, i.e., approximately 50% of the number of accepted students, which conforms to the ratio in preceding years. A total of 648 applicants submitted 827 applications to study in the follow-up master's programmes. 484 were accepted and 379 enrolled. **1,925 students studied in bachelor's programmes**, and there were **842 full-time and 26 combined students** in follow-up master's programmes.

**138 foreign nationals worked at the faculty** in 2017, 31 of whom were academics. 148 students took part in international placements, while 132 international students were welcomed to the faculty. There were **120 foreign doctoral candidates** (not including Slovak students) in 2017, with thirty new candidates joining the programme during the year. **Three cotutelle contracts** were concluded in 2017: with the University of Bordeaux, France (Ecotoxicology), the University of Torino, Italy (Theoretical Physics and Astrophysics), and Università degli Studi di Milano-Bicocca, Italy (Genomics and Proteomics).

**562 academics travelled abroad** (on trips of more than 5 days), and 52 academics or other professionals came from abroad to lecture at the faculty.

A new **Summer Lab Research Internship** was set up for US students coming to laboratories of the Faculty of Science for month-long internships. 2017 FSci students travelled abroad, while the faculty welcomed 10 international students.

The faculty has continued to **create an environment attractive to leading professionals from abroad**. To this end, it has strived to take part in projects underwritten by both Czech and foreign providers. To fund faculty science and research, institutional and targeted sources in the amount of CZK 632,470 were used and FSci obtained an additional CZK 31,885 in funding from the structural funds (RDIOP). Funding for research centres built during the previous programming period (CETOCOEN and CEPLANT) comes from the National Sustainability Programme and other sources.

Four projects intended to promote excellence in primary research funded by the Czech Science Foundation are currently underway, and the faculty functions as co-principle investigator on six large-infrastructure projects aimed at research, development, and innovation. **11 Horizon 2020 projects** funded by the EU were implemented at the faculty in 2017, **making the faculty principal investigator or co-principle investigator on 266 projects in all**.

The most significant event involving the public in 2017 was the **51st National Round of the Biology Olympics**, a week-long contest for talented students from across the Czech Republic. The event included presentations by some of the unique laboratories and departments operating at the faculty and CEITEC, and was intended to motivate these highly talented students to come study at FSci. Results of the Olympics were announced at a ceremony sponsored by the Mayor of Brno and three national ministries, with VIP guests in attendance.

In addition to its traditional Open Days event, the faculty took part in the **MjUNI project**. Tasks were prepared in the historical buildings at the Kotlarska Street complex and at the university's Bohunice campus for 160 children to encourage interest on their part in studying at the Faculty of Science. September saw the largest science promotion event: **Researchers' Night**, attended by **more than 5,000 visitors** who came to see the faculty's sites. Staff and students set up **38 exhibits featuring unique experiments and interesting practical laboratory tasks**.

The Faculty of Science fosters a long tradition of **correspondence seminars and other activities for secondary school students**. Much appreciated is *Bioscop*, a biology club for primary school pupils and secondary school students, as well as interdisciplinary contests *InterLoS* and *InterSoB* (organized in collaboration with the Faculty of Informatics), *N-trophy* (a contest packed with experiments and research work in the areas of biology, chemistry, physics, and logic), and *Riches of the Earth*, organized together with the Faculty of Economics and Administration. The faculty puts all of the activities it uses to target applicants, secondary school, and primary school students, on its website in the form of brochure entitled **Activities for Students and Teachers at Primary and Secondary Schools**.



## Art Historians Follow in the Footsteps of Medieval Pilgrims

In summer semester 2017, twelve students of the Faculty of Arts set out to explore the world from the perspective of times long past to gather information for their master's theses. Migrating Art Historians was a pedagogical and academic experiment conceived by Ivan Foletti, who led the group of pilgrims. The pilgrimage across France and Switzerland provided students with the chance to visit and explore historical sites and better their understanding of the medieval lifestyle. Along the way, they stayed several times in monasteries, where they participated in workshops led by internationally recognized experts on the medieval period. When the trip was over, the students had walked 1,540km and captured their four-month trip in 12 short documentaries.

Foto: Art history students set out on a medieval pilgrimage led by Ivan Foletti (on the right)

# 12.4

## Faculty of Arts

The Faculty of Arts offers the greatest diversity in fields of study at the university. Its extensive coverage of subjects includes linguistics and the study of languages, history, psychology, religious studies, education, visual art, and cultural studies. **4,255 students** studied in the faculty's bachelor's and long master's programmes, with another **1,922 students** in follow-up master's programmes. The faculty took in **4,590 applications** for its bachelor's degree programmes.

A **wide variety of scholarship schemes** are in place to support students in their studies and in other activities. In addition to academic achievement and mobility schemes, scholarships are awarded from the *Publication Support Program*, and students may receive funding for *associations, as well as cultural and art-related activities*. To further boost student motivation, the *MU FA Dean's Prize* is awarded annually during **Humanities Week** for excellent diploma theses and dissertations.

Mobility at FA increased in most categories compared to the preceding year. **655 MU students were placed abroad**, while the faculty welcomed 579 incoming international students. More than **826 instructors went abroad**, with 684 foreign nationals coming to teach at the FA. **442 courses outside the language curriculum were taught in foreign languages**—the faculty is accredited to teach 8 subject areas in English. Finally, the faculty organized the 50th year of the *Summer School of Slavonic (Bohemistic) Studies* and the 2nd year of *Central Europe: A Birthplace of Modernity*.

A focus of the faculty in 2017 was the promotion of programmes in English as well as Czech at two **prominent education fairs**, *China Education Expo* in Beijing and the *International Education Abroad Fair* in Kiev. New contracts were concluded with universities in China, Taiwan, and Russia.

Scholarships were used to support international mobility for doctoral students—CZK 1,928,000 in funding went to 196 doctoral candidates. As part of the RDIOP project entitled *Intercultural Dimensions in Philology Doctoral Programmes*, contact was established with partner universities in an attempt to integrate courses available abroad with MU's philology doctoral programmes. Emphasis was placed on logistic **support for cotutelle doctorates**. Currently, there are 5 cotutelle doctoral students, and 3 cotutelle doctoral dissertations were defended in 2017.

The faculty enjoyed significant success in getting grants from the Czech Science Foundation, with funding for 17 new projects. **There were thus 30 standard and two international CSF projects**. Another faculty achievement was in motivating humanities departments to respond to calls publicized by the TACR (applied research projects): seven proposals were submitted in 2017. FA MU has a high success rate in obtaining interdisciplinary projects from the Masaryk University Grant Agency. The faculty worked on five projects in 2017, two as principle investigator. **Three other project proposals**, meantime, were **submitted for ERC grants** after years of preparation.

The number of journals FA indexes in respected international databases also rose in 2017. Four journals are now indexed in ERIH Plus, and two in Scopus.

The faculty continued its work for the third year in a row on the **Support for the Scala University Cinema** project. The project underwrites the efforts of the Film Studies Department to enrich Brno's cultural life by organizing events for the public, screening art films, and presenting programmes that spotlight the films of individual countries.

A milestone in the development of the faculty's public relations was the **launch of the new FA website** in both Czech and English. The website targets the general public and clearly lays out of the academic areas taught at the faculty, as well as providing information on prominent alumni and the faculty's academic and research focus.

2017 saw the **first year of Industry ShowCase**, aimed at connecting students in language fields with the major international employers in the Czech Republic. The event was custom tailored for FA by the MU Career Centre. Another first for the faculty was a series of lectures introducing inspiring and successful practicing professionals from the non-profit and commercial sectors to students. As in previous years, FA organized events for general public, as well.

The faculty took part in MU's contribution to **Researchers' Night**, which was observed across Europe. Throughout November 2017, events were held to honour **World Philosophy Day**, proclaimed annually by UNESCO. The Faculty of Arts organized the annual **Humanities Week**, this year themed *Reforms and Revolutions*.

In late 2017, FA prepared a gift for the general public in the form of the performance *Baroque Across Europe: When Europe Was Dancing the Minuet* at the Orli Street Theatre.

A man with glasses, wearing a dark blazer over a striped shirt, stands in a library aisle. He is looking directly at the camera with his arms slightly outstretched. The aisle is lined with tall bookshelves filled with books. The ceiling has modern lighting fixtures. The overall color scheme is blue and white.

## MAU Faculty of Education Will Use a New Method to Support People with Autism

Since in October 2017, Applied Behaviour Analysis has been taught at the Faculty of Education as part of a lifelong learning programme. The faculty is the only institution in the Czech Republic to receive accreditation from the international Behaviour Analysis Certification Board to teach the approach. 13 people enrolled in the new course, which teaches a method to help people with behavioural difficulties or impaired communication abilities. Participation in the course is a prerequisite for obtaining a behavioural analyst's license.

Foto: Karel Pancocha, guarantor of the new course Introduction to Applied Behavioural Analysis

# 12.5

## Faculty of Education

A total of **4,691 students** were enrolled at the Faculty of Education in 2017, 2614 of whom were in bachelor's programmes, with 503 in master's, 1,418 in follow-up master's, and 156 in doctoral programmes. The faculty offers 63 fields of study, three taught exclusively in English. **7,706 entrance applications** were submitted for the 2017/2018 academic year.

In winter semester 2017, the focus fell on converting fields of study into degree programmes to comply with current legislative changes. The first students to work under the new system will do so in the 2019/2020 academic year. **Applied Behaviour Analysis (ABA)** received accreditation from the international Behaviour Analysis Certification Board as well as from MEYS. Instruction in the new discipline could thus begin in September 2017 as part of the lifelong learning programme. ABA employs a specific methodology to educate students with autism spectrum disorder and other neural development disorders.

In September 2017, the Faculty of Education became the **first institution in the Czech Republic to be a member of the European Teacher Education Network**, an organization that bolsters international collaboration among teacher training institutions. Throughout the year, seminars featuring foreign specialists focused on developing competencies in internationalisation. To strengthen the internationalisation of doctoral programmes, negotiations were launched with universities in Norway, Austria, and the USA to involve specialists from these institutions as consultants. August 2017 also saw **the first year of the international Effective Practices for Increased Inclusion in Schools summer school**.

78 students in mobility programmes were welcomed to the faculty, while 205 of the faculty's own students went abroad on study placements or work internships. The faculty revised its existing agreements on collaboration and innovated the way in which it promotes student mobilities. **New contracts were concluded** with the prestigious **VIA University College** (Denmark) and **California State University, Monterey Bay** (USA). New scholarship programmes also became available as the result of collaboration with McLennan Community College. Collaboration with the University of Minnesota and Hague University of Applied Sciences was initiated to improve internationalisation management.

The faculty organized or helped organize **13 academic conferences** in calendar year 2017. The Academic Board of the Faculty of Education met twice and put into motion 10 habilitation procedures and one appointment procedure. Two habilitations were finalized.

**Academic and support staff received various awards** in recognition of their work in 2017. Docent Milena Subrtova received the *Ludmila Podjavorinska Plaque* for deepening the mutual contacts between Czech and Slovak literature for children and youth. The prestigious *Thulin Award for Young European Scientists/Researchers* was presented to Petr Vlcek in Luxembourg for his development of physical education in the Czech Republic and in Europe by the *Federation Internationale D'education Physique-Europe*. **The international Europa Nostra award** went to the National Heritage Institute's educational project *Enjoying Czech Heritage*, prepared by the Department of Social Education, the Department of History, and the Department of Art, and headed by Dusan Klapko.

The faculty conducted **12 existing CSF projects** in 2017, **14 Masaryk University Development Fund projects**, two interdisciplinary projects, and 11 specific research projects. FEdu implements 13 projects under RDIOP, serving as beneficiary coordinator on three of them. Additionally, two cross-border projects from the Interreg CR-SR programme were approved. The Faculty of Education has been successful in international Erasmus+ projects. 2017 saw the implementation of 13 such projects, with the faculty as coordinator on two of those. The faculty is also implementing one **Horizon 2020 project**.

At the end of the year, a new status document covering the **Clinical School, Faculty School, and Faculty Facility** was prepared and published. The document governs conditions of collaboration with faculty schools and facilities and sets out detailed criteria that must be met for status to be conferred. The second year of the **Teacher of the Year** competition also took place, with more than 550 people voting. **Four FEdu alumni serving as teachers received the award**.

In September 2017, **Pidimunatka, a children's day-care centre**, started to offer babysitting for faculty employees on workdays. The student organization *Otevreno* organized three discussion meetings and four informal meetings, and *CIVITAS* prepared four experiential events for students.

# Faculty of Economics and Administration Opens Unique Laboratories for Economics Experiments



BOX 01-06

Two new laboratories for economics experiments and simulations were launched at the Faculty of Economics and Administration in October. Professor James Alm from Tulane University in New Orleans cut the ribbon. The labs are designed for 20 to 24 experimental participants with a separate workstation for each. The behaviour of each participant may be observed at all times. To allow the lab to be used for regular instruction, pull-down partitions are positioned between individual seats—equipment that is one-of-a-kind in Europe.

Foto: Students in the new economics experimental laboratory

# 12.6

## Faculty of Economics and Administration

The Faculty of Economics and Administration received a total of **5,186 applications** in 2017. **1,208 first year-students enrolled** (including those in follow-up programmes), making for **2,556 students at the faculty in 2017**. The ratio of applicants to enrolled students is such that FEA is one of the most selective schools of economics in the Czech Republic. Compared to last year, the proportion of students enrolled saw a moderate decrease, which also reduced the number of students per teacher.

The proportion of Slovak students has been on the rise, now standing at almost 23%. The proportion of foreign students from other countries has also risen, to 4.1%. Still among the **most popular** bachelor's and follow-up master's programmes are **Economics and Management, and Finance and Accounting**. The faculty offers 12 scholarship programmes, providing CZK 3 million in funding to students.

The faculty also **expanded the number of English-language follow-up master's programmes it offers**. 60 active students from abroad (excluding Slovakia) studied in these programmes in 2017. The faculty is **successful in attracting students from countries as far-flung as Japan and Brazil**. The number of students admitted is on the rise, as is their academic achievement.

2017 saw active collaboration in partnerships based upon English-language programmes. Once again, the faculty welcomed two students from the University of Piemonte Orientale in Alessandria, Italy (Public Economics and Administration), and undertook the needed preparations to welcome its first groups of students from the Taras Shevchenko National University of Kyiv (Finance). More than **170 students came from abroad** on scholarship placements in 2017. They were able to choose from **approximately 80 courses taught in English** at all levels of study. The faculty continues to expand its network of partner universities under the Erasmus+ programme, as well as on the inter-faculty level. New collaboration contracts were written with universities in Turkey, Holland, Slovenia, and Spain.

In 2017, the faculty continued its work on academic and research projects and **stressed support for international projects**. The first **H2020 project**, *Governance of the Interoperability Framework for Rail and Intermodal Mobility*, got underway during the year. 2017 was also the year for the faculty's first project under the EU H2020 programming framework, with a focus in the area of so-called 'innovation actions', entailing direct collaboration with industrial partners. Gorenjegospodinjnski aparati, d.d., a Slovenian company, functions as coordinator for the *Resource-Efficient Circular Product-Service Systems*

project. Research teams continue to increase the level of participation in prestigious international schemes.

The Grant Agency of Masaryk University supported 20 specific research grant projects and two interdisciplinary grants under the research support programme. Additionally, the Technology Agency of the CR funded two interdisciplinary applied research projects.

A significant developmental element consisted in the **establishment of two new research institutes**: *Institute of Sustainability and Circularity*, and the *Institute of Complex Financial Systems*, which collaborated with a host of partners from the public and private sectors through contract research. In all, there are eight research institutes operating at the faculty.

2017 was an exceptional year for the Faculty of Economics and Administration for visits by a **number of prominent figures**. Among those who gave lectures for students and the public were Jozef Makuch, Governor of the Slovak National Bank, Andrej Babis, Prime Minister of the Czech Republic, Hans-Werner Sinn, and Leszek Balcerowicz. In addition, Professor Vaclav Klaus taught *Transformation Processes in the Czech Republic* as part of the regular instructional curriculum.

Perhaps the most noteworthy instance of collaboration was the **TopSeC project**, in which students were selected from across the university. For the project, individual faculty partners (Bisnode, Deloitte, EY, KPMG, VIG) prepared two semesters of lectures and workshops. Students had the opportunity to visit the eye clinic Neovize, the logistics centre of Lidl Czech Republic, and the Vienna headquarters of the MU's partner, the Vienna Insurance Group. Students are chosen for the project each year with the help of the assessment centre in the MU Career Centre. **Industry Showcase: A Career in Company Finance**, was another event organized in collaboration with the Career Centre. It enabled students to meet representatives of selected companies face-to-face.



## Computer Scientists at Masaryk University Find a Grave Vulnerability in Security Chips

**In the course of their research, Masaryk University computer scientists found a vulnerability that could compromise the functionality of security chips. Experts from the Centre for Research on Cryptography and Security (CRoCS), headed by Petr Švenda, came on the error accidentally when they looked into cryptographic keys generated from a large number of libraries in chips, and investigated their characteristics. The vulnerability affects a wide range of products, including chips in new electronic ID cards. Once discovering the vulnerability, the researchers immediately informed the manufacturer and issued a tool for timely detection.**

Foto: The team from the Centre for Research on Cryptography and Security holding the axe they received as a present for their help with chips from the Slovak Minister of the Interior. From the left: Marek Sys, Vaclav Matyas, Petr Svenda, and Dusan Klinec



# 12.7

## Faculty of Informatics

The total **number of students** enrolled at the faculty as of yearend 2017 was **1,909** (1,150 in Bachelor's programmes, 673 in follow-up master's programmes, and 86 in doctoral programmes). **The percentage of Slovak students now stands at 52.5%**. Bachelor's students have a choice of 13 fields of study (including three interfaculty fields). For follow-up master's degree programmes, 18 fields of study are available (including one interfaculty major and three taught in English-language). In the doctoral programme, the faculty offered 2 fields of study.

**Outstanding students are awarded scholarships** that reflect their academic performance (approximately 100 students were eligible in 2017), while talented first-year students are eligible for **motivational scholarships** (67 students received them in 2017). 11 scholarship programmes of various kinds were available in 2017 in all. In addition to academic performance scholarships, they included programmes to support of students' creative work; mobility and exchange programmes; and R&D projects). Overall, **599 students received scholarship payments** of CZK 22.6 million.

The final State Examinations took place in winter semester for students in an MU master's programme taught in Delhi, India.

The Faculty of Informatics launched four projects underwritten by the Czech Science Foundation. Six other grants were obtained from the CSF that will be launched in 2018—an increased number versus the previous year. In all, the faculty worked on **16 projects underwritten by the Czech Science Foundation**. The faculty was involved in three *Large Research Infrastructure* projects, two RDIOP projects, and **two H2020 projects**, and also successfully wrapped up a project funded by the Technology Agency of the Czech Republic. It participated in research projects funded by public authorities like the Ministry of Industry and Trade and Brno City Hall, as well as in eight interdisciplinary projects.

The work of researchers in the FI MU Security and Applied Cryptography Laboratory generated much interest from professionals and from the public; the team found a **vulnerability in security chips** made by Infineon Technologies. Because of the potential impact of the discovery, the **team was awarded a prize** at the prestigious *ACM Conference on Computer and Communications Security*, at which even a nomination is considered a great achievement.

Seven students completed the doctoral programme at the Faculty of Informatics in 2017. Jakub Gajarsky, one of the graduates, received the MU Rector's Award for Outstanding Doctoral Thesis. Relatedly, a **scholarship pro-**

**gramme to support talented doctoral candidates has been a stunning success**, offering a limited number of better paid positions for the best new doctoral candidates.

In autumn 2017, FI co-organized the **international Text, Speech, Dialogue conference**; the MEMICS international workshop for doctoral candidates; and an international summer school for doctoral and master's students on the theme *Advanced Methods in Biomedical Image Analysis*.

The faculty's **collaboration with industrial partners** focused on those partners with small numbers of successfully defended theses, to highlight the potential for successful collaboration in the future. Other efforts were aimed at supporting a new rule: as of 2017, only **companies that support the research of particular PhD students may be strategic FI partners**. These efforts worked well, and **29 companies** that are part of the umbrella *Association of Industrial Partners* collaborated with the faculty in late 2017: three companies in the Strategic Partner category, 12 companies in the Partner category, and 14 companies functioning as SME partners.

In addition, the **CERIT SP industrial park is operating in conformance with original projections**, with an occupancy rate at the end of 2017 in the science park of 100% and in the business incubator of almost 80%. 21 companies are now located in the park.

The results of an extensive survey of communication preferences and alumni options for collaboration were analysed, with special attention paid to graduates, who—as employees in companies working closely with the faculty—provide feedback for preparing innovative FI degree programmes for accreditation.

The faculty continued to collaborate with secondary schools and created its own **ambassador programme for secondary schools**, working closely with six Brno secondary schools in supervising leisure time clubs, organizing lectures, organizing a competition for independent work by secondary students' and offering lifelong learning courses to gifted students.

**Year-on-year, student interest in the faculty has increased by more than 20%**, a great success given the decreased or stagnating demand at other computer science faculties in the Czech Republic. This testifies to the increased quality of education at the faculty and the reputation FI enjoys both among applicants and with the general public.

# Psychologists Examine the Teenage Generation and Find Unlimited Options Make Their Lives Difficult

**MU psychologists followed teenage Czechs from Generation-Y for five years. This generation is often pejoratively viewed as being lazy and shirking responsibility, but the research results show this is not intentional on their part—rather, they have had to deal with situations their predecessors did not and were forced to choose a path from among extensive options and alternatives. A research team headed by Petr Macek from the Institute for Research on Children, Youth and Family summarized individual aspects of this extensive research in a book published in 2017: *Paths to Adulthood: Psychological and Social Characteristics of Current Vicenarians*.**

Foto: Editors of *Paths to Adulthood*. From the left: Stanislav Jezek, Petr Macek, and Lenka Lacinova

# 12.8

## Faculty of Social Studies

The faculty records a total of **3,052 studies** in bachelor's and follow-up master's and doctoral programmes. Despite fewer applicants, the faculty continues to be highly selective in admitting applicants to its programmes, with a substantial number from other universities attracted to the faculty's follow-up master's programmes. A new English-language bachelor's degree programme has been established, and the faculty currently offers **nine English-language master's programmes**, three of which are collaborative efforts with international institutions. Moreover, the entire offering of doctoral programmes is accredited in English. **109 students studied in English-language bachelor's and master's fields of study, along with 15 doctoral candidates**, testimony to the consistent demand for this form of study.

The Faculty **prepared two new master's programmes in English**—*Conflict and Democracy Studies*, and *Public Policy and Human Resources*—as well as the first bachelor's programme to be taught in English: *International Relations and European Studies*. International mobility is higher at the Faculty of Social Studies than anywhere else at MU. **259 students went abroad** during 2017 for a **semester-long study or traineeship**, 170 as part of the Erasmus programme. The number of incoming foreign students was also significant. 2017 saw the arrival of 238, 152 under Erasmus, and 33 under Erasmus+ ICM. In spring 2017, the Department of Political Science hosted leading American security analyst **Schuyler Foerster in the Fulbright-Masaryk Distinguished Chair programme**, and 13 guest academics arrived via Erasmus+ and Erasmus+ ICM.

The faculty worked on **55 research grant projects**. 14 were funded from abroad, four under the FP7 and H2020 schemes. 41 projects were underwritten by CR providers, 27 of which were funded by the Czech Science Foundation (CZK 53 million). Faculty researchers were responsible for **196 publications**. *The Rector's Award for Outstanding Research Results Achieved by Young Scientists under 35* was presented to Hana Machackova, and, the *Rector's Award for Outstanding Doctoral Thesis* was presented to Lenka Hrbkova.

The Institute for Public Policy and Social Work organized an international conference entitled *Childcare and Elder care Policies in Changing Times: Lessons from the Czech Republic and Norway*. Additionally, it prepared an analysis for the Brno City Hall entitled *Analysis of the Family Situation in Families with Pre-school Children and Dependent Seniors from the Standpoint of the Family and Key Actors in the Creation of Social Care and Service Provision Policies*.

In August 2017, the Department of International Relations and European Studies at the Faculty of Social Sciences, working together with their project partners, organized the **6<sup>th</sup> year of the International Energy Security Summer School**. This summer school is one of the department's long-term projects and enjoys an extraordinary international reputation; 84% of participants come from abroad. The faculty also organized the second year of *Israel and the Politics of Innovation: the Start-up Nation in International Perspective*, a course open to master's degree students at all nine MU faculties. The course featured **eight Israeli experts, entrepreneurs, and investors** who came to give lectures, along with Peter Kolesar, CEO of Neulogy and alumni of the Faculty of Social Studies.

The **International Institute of Political Science organized five conferences**, two with Konrad-Adenauer-Stiftung: *Energy in CEE – Region on a Crossroad of Trends*, and *Russia and Central Europe*. Both offered an interdisciplinary view of the role Russia plays in our region. The public took interest in other two conferences, as well: *Media Regulation* and *The Future of the Presidential Elections*, organized by the Institute in conjunction with the Department of Political Science and the organizers of the Prezident 21 project. The respected international **Brno Political Science Symposium** last year focused on security in Central Europe.

A significant event for the Institute for Research into Children, Youth and Family was the **4<sup>th</sup> year of the Conference on Psychological Diagnostics Brno 2017**.

Csaba Szalo, Head of the Department of Sociology, became a member of the *Executive Committee of the European Sociological Association*. Meantime, sociologist Katerina Liskova described her research for the New York Times magazine.

The Department of Environmental Studies, together with the Faculty of Humanities, and the University of Bergen, Norway, organized **Výzkvety**, an **International Student Conference** whose theme was *Sustainability*. It also co-organized the international Ekofilm festival *Na Vzduch!* enjoyed by 5,500 people in October 2017. In addition, an international seminar was organized: *Open Space—Entrepreneurship for People and the Planet: Where to Find Environmentally-Friendly Alternatives in Economics and the Economy*.

A woman with dark hair is seated at a desk, performing a respiratory training exercise. She is wearing a white nasal cannula and a white mouthpiece. She is holding a small glass bottle with both hands, and the mouthpiece is inserted into the bottle. The background is a plain, light-colored wall. The image is overlaid with a semi-transparent teal box containing text.

## A Unique Programme Designed at the Faculty of Sports Studies Helps Patients after Blood Cell Cancer

Specialists from the Faculty of Sports Studies put together a set of special exercises designed for people who have completed their treatment for blood cell cancers (lymphoma and leukaemia). In September 2017, they began to lead another exercise group for patients, employing an improved version of their technique. The new version has been extended to include respiratory training and elements of physiotherapy, which should lead to more effective mastery of the subsequent exercise portion of the programme. The aim is to create a methodology that can be adopted by other oncology centres. So far, Brno is the only location in the Czech Republic where patients may receive this expert exercise guidance.

Foto: A member of the Faculty of Sports Studies demonstrating respiration training to increase lung capacity

# 12.9

## Faculty of Sports Studies

A total of **1,235 students** were enrolled in the Faculty of Sports Studies, of which 824 in bachelor's, 352 in follow-up master's, and 59 in doctoral programmes in 2017. 359 students completed the bachelor's and master's programmes.

Among the bachelor's programmes offered, applicants showed the greatest in **Physiotherapy, Sport Management, and Physical Education and Sport with a Specialty in Fitness Coaching**. In the follow-up master's programme, demand for all fields of study was fairly balanced. 14 students enrolled in a new two-subject inter-faculty combination called *Animator of Sport Activities* (FSpS) and *English Language for Education* (FEdu). Applicants from other universities are responsible for one-third of all the applications submitted for the follow-up master's programme.

The faculty offers **13 scholarship programmes**; a new scholarship to support final theses written in English was given to five students.

As part of RDIOP MUNI 4.0, the accreditation process is in preparation for the **Personal and Fitness Trainer** programme; the initial students are to be admitted to the programme in 2019. The accreditation process is also underway for transforming fields of study into degree programmes in keeping with the law.

FSpS developed collaboration with institutions abroad and **signed four new contracts with partner universities** (in Poland, Spain, Portugal, and Netherlands).

32 students took placements abroad, as did 14 academics and four non-academic staff. The number of incoming students increased to 50, and 40 employees of foreign universities took part in a teaching mobility or training at the faculty.

The publication activity of faculty members increased. A total of 45 journal articles were published, along with three monographs, eight book chapters, and 48 articles in proceedings.

Together with the University of Zagreb, FSpS organized the 11<sup>th</sup> year of the four-day **international kinanthropology conference *Sport and Quality of Life***, which featured 150 lectures attended by more than 350 people. The conference was divided into three parts: athletics, orthopaedic physiotherapy, and a forum for doctoral candidates.

The faculty submitted 80 proposals to Czech and international grant programmes in 2017. **Two contractual research projects** were implemented under the *Enterprise and Innovations for Competitiveness OP* with Aries and Isoline. Additionally, four contractual research and collaboration projects were realized for the applied sphere, among them an *Analysis of Selected Physiological*

*Indicators in Elite Athletes*. To support foreign language publications, two new directives were put in place: the *Directive on Support of Publications for High Impact Journals - Q1*, and the *Directive to Implement Translations of Written Academic Work*.

The faculty assumed the role of co-investigator on the RDIOP project *Quality Inclusive Education of Students with Special Educational Needs in Primary and Secondary Schools*, and is a partner in the international NASME (New Age of Sport Management) project aimed at sharing sport management skills within the Erasmus+ network.

The faculty worked with regional partners to organize **sport, charity, and educational events aimed at the general public**: the Special Olympics, Dean's Run, Luzanky Run, Ivanovice Sports Day, Basket Brno, Badminton FSpS Brno, MARS, Animals Also Do Not Smoke, Children's Day with Mole and Hippo, Psychomotorics Day, PhysioSaturday.

To celebrate **the 15<sup>th</sup> year of the faculty's existence**, a **gala evening** was organized at the university's Bohunice campus.

The Lifelong Learning Centre offered a wide range of courses to professionals and other members of the public, all of which are listed on the website of the **Centre of Education for All**. The most popular include courses for Class II trainers, wellness stays, and seminars on nutrition trends. **Collaboration is ongoing with sports associations**: the Czech Table Tennis Association, the Czech Association of Okinawan Karate and Kobudo, and the Czech Badminton Federation. The centre's course listings were expanded to include lectures for active and leisure time athletes focused on nutrition, eating habits, and qualification courses aimed at working with people with disabilities and seniors.

**Practitioners of renown came to the faculty to lecture**, including John Travis, the originator of the concept of wellness, who spoke on *Changes in Health and Wellness Perceptions*, and Miroslav Cernosek, the Chairman of the Board of Ceska Sportovni, who spoke on *Professional Sports Marketing*.

# CEITEC Researchers First to Describe the Structure of Viruses Invading Bee Colonies

**A team of scientists headed by Pavel Plevka from the CEITEC institute at Masaryk University has described the structure of viruses that are endangering bee populations. The researchers were the first to describe the viruses down to the atomic level, and to identify the method they use to infect cells. Their results will help to find ways of reducing viral infections in bees. The research was carried out in close collaboration with Antonin Pridal from Mendel University in Brno, who prepared bee pupae infected with the virus for CEITEC scientists. Their work was published in the influential journal PNAS.**

Foto: Pavel Plevka, leader of a CEITEC MU research team working on the identification of bee viruses

# 12.10

## Central European Institute of Technology

Using recalculated workloads to arrive at the number of full time positions, MU's CEITEC institute employed **316 people** in research, technical support, and laboratory support positions. 132 are foreign nationals, and 147 are women. The institute's activities in 2017 followed from changes the previous year that stemmed from updating of the HR policy and support for international collaboration. **Rules for evaluating junior research groups were implemented**, and a new policy mandating open international selection procedures for research group heads was put into practice. The institute took the initial steps in setting up rules for collaboration with the commercial sphere and for the development of technology transfer. The institute's management continues to **fight inbreeding and actively promotes internationalization on all levels at CEITEC MU**.

**Two new research groups were established** at CEITEC MU in July. Their research is focused on finding therapies for cancer and other diseases that are targeted and more accurate. The heads of the new research groups—Michal Smida and Robert Vacha—come with many years' experience at renowned European research institutes, and were selected based on their results to-date in their fields.

Via an open international selection procedure, Panagiotis Alexiou was selected to head another research group that will start operation 1 January 2018. He came to CEITEC MU from the Perelman School of Medicine at the University of Pennsylvania.

**The level of research at CEITEC has been steadily climbing.** This was clear in 2017 from the increasing quality of published output and the number of articles published by first-time authors in highly ranked journals. **CEITEC MU researchers published 299 articles in prestigious peer-reviewed journals** in 2017, 54% in journals that rank in the top 25% in their fields in terms of impact factor.

The ever strengthening quality and quantity of its research output places CEITEC MU among the best scientific institutes in the Czech Academy of Sciences and similar facilities abroad.

Pavel Plevka and his team described the **structure of several viruses that endanger bee populations**. They were the first ever to break the structure of these viruses down to the level of individual atoms and describe the changes that occur during the process of cell infection. The knowledge acquired may help find ways of reducing viral infections in bees. Their work was published in the eminent journal PNAS.

A team of CEITEC MU researchers led by Richard Stefl pinpointed how cells recognize the ends of genes as they are transcribed from DNA into RNA and subsequently into specific proteins. This helped them understand **how the transcription of genetic information works**, and the impact of the process on the origin of some diseases. Their work was also published in PNAS.

Members of Jaroslav Koca's new research group developed novel software at CEITEC MU that functions as a virtual microscope that may be used to explore molecules or sets of molecules as a whole. This breakthrough software, called LiteMol Suit, is capable of focusing on details and studying **how medicines are tied to receptors**, or showing an iron atom in haemoglobin.

In neuroscience, CEITEC MU is proud of the success attained by Professor Milan Brazdil's team in treating epilepsy. Working with St. Anne's University Hospital in Brno and the Mayo Clinic in the USA, he was able to **analyse the frequency of waves between individual epileptic seizures** using stereo-EEG. Employing a significantly more sensitive recording process and improved analysis, the team identified very high-frequency whirls that are better biomarkers for epilepsy locations than the currently used high-frequency oscillations. The finding may lead to improved identification of the origin of epileptiform discharges, and subsequently to improved results in surgical interventions with patients whose epilepsy is refractory to pharmacological treatment.

In collaboration with the Belgian institute VIB, CEITEC MU launched the *PASSAGE* research project in 2017. The two institutes combined efforts to begin building a **European Centre of Plan Synthetic Biology**.

**International collaboration was launched with Eastern European countries** under the *Alliance4Life* project coordinated by CEITEC MU. The participating institutions already have significant scientific output but wish to systematically focus on bettering their overall operations. In addition, significant cross-border collaboration was initiated with institutions based in Vienna under the *RIAT-CZ* project in early 2017.



# MU Cybersecurity Team Among the Best in Europe

The excellence of MU security analysts' work has been officially reaffirmed. The CSIRT-MU team responsible for computer network security was awarded the highest possible certification from the Trusted Introducer organization in early 2017, ranking the ICS team among the top 20 in Europe. The certification means the team's cyber security services are of the best possible quality and all the necessary procedures are in place. The certification is granted for three years and must to be defended after this period.

Foto: Laboratory of the KYPO – Cyber Exercise & Research Platform at CERIT Science Park MU



# 12.11

## Institute of Computer Science

ICS supports the operation and conceptual development of MU's information infrastructure, with the exception of IS MU and related domains. Concurrently, it focuses on two areas of research: e-infrastructures and related services, and applications and cybersecurity. Consistent ties between the institute's research and its operation enables the **provision of top-quality services** based on the latest developmental trends. **The institute's research draws on its immediate experience with its own day-to-day operations**, allowing it to focus on areas relevant to society.

The institute underwent an internal reorganization in 2017 aimed at consolidating and reinforcing the organization in necessary areas. Particularly important progress was made with the establishment of a new cybersecurity and data administration division, which functions as a central clearinghouse for matters related to the university's readiness for GDPR. The IT infrastructure division oversees the university's cloud infrastructure, which allows for **closer interconnections between network, storage, and computing services, and other institute activities**. In all, more than 150 employees were employed at the institute, 24 at the PhD or CSc. level, five at the rank of associate professor or professor. Approximately 30 staff members take part in instruction, mostly at the Faculty of Informatics.

**Cybersecurity research is provided by C4e**, which combines excellence in research and development with solid instruction in the areas of cybercrime, cybersecurity, and critical infrastructure protection. In addition to computer science research in concert with the Faculty of Informatics, C4e projects bring together **the legal and sociological dimensions of comprehensive cybersecurity**. The Cyber Polygon established by C4e was the site of the first international **Cyber Czech exercise** in 2017, which was conducted with the collaboration of the National Cyber and Information Security Agency and included a visit from the NATO *Cooperative Cyber Defence Centre of Excellence*.

**The CERIT-SC research infrastructure** plays an analogous role for e-infrastructure. The mission of CERIT-SC, which is on the national map of research infrastructure, is to build and develop the national e-infrastructure and connect it to the international community, and to **collaborate with scientific teams in various disciplines** to ensure the flexible, efficient use of computing and storage capacities. In 2017, CERIT-SC **successfully passed an international evaluation** organized by MEYS. CERIT-SC pursues two directions of research: support for high performance computing using accelerators, particularly

graphic cards; and big data analysis. These two directions complement the needs of C4e well, strengthening the synergy of the institute's environment. Other overlapping areas include authentication and authorization infrastructure for extensive distributed infrastructures, which is developed by CERIT-SC and C4e in collaboration with CESNET.

Both **C4e and CERIT-SC utilize their extensive involvement in national and international projects to bolster future development**. At C4e, two new projects funded by the Ministry of the Interior have been launched, as has a project under the Technology Agency of the Czech Republic. Meantime two RDIOP projects were launched by CERIT-SC aimed at building its own infrastructural capacity and that of ELIXIR CZ. CERIT-SC functions as the coordinator for both. Also significant are H2020 international projects. CERIT-SC participated in the EOSC-Hub which will launch in January 2018. Within the larger ELIXIR infrastructure, a specific authentication and authorization infrastructure called ELIXIR AAI has been built and was selected in tenders to undertake two implementation studies in 2017, with a third project approved for 2018. Exceptional success came with C4e's selection for an RDIOP project to support excellence. **Six projects funded from abroad were launched at ICS versus 16 funded within the Czech Republic**.

ICS took an active part in preparation for the RDIOP **MUNI4students** project, functioning as supervisor in the area of e-infrastructure (specifically, significant reinforcement of the quality of MU's WiFi network), and AV technology (extensive reconstruction and reinforcement of audio-visual equipment at the university). The project includes **the reconstruction of the University Computer Centre** based on a concept approved by the MU Information Technologies Board this year.

# MU Organizational Structure

## Masaryk University



Zerotinovo nam. 617/9, 601 77 Brno, Czech Republic, [www.muni.cz](http://www.muni.cz)

## Rector's Office



Zerotinovo nam. 617/9, 601 77 Brno

## Faculties

### Faculty of Law



Veveri 158/70, 611 80 Brno

### Faculty of Arts



Arna Novaka 1/1, 602 00 Brno

### Faculty of Informatics



Botanicka 554/68a, 602 00 Brno

### Faculty of Medicine



Kamenice 753/5, 625 00 Brno

### Faculty of Education



Porici 623/7, 603 00 Brno

### Faculty of Social Studies



Jostova 218/10, 602 00 Brno

### Faculty of Science



Kotlarska 267/2, 611 37 Brno

### Faculty of Economics and Administration



Lipova 507/41a, 602 00 Brno

### Faculty of Sports Studies



Kamenice 753/5, 625 00 Brno

## University Institutes

### Institute of Computer Science



Botanicka 554/68a, 602 00 Brno

### Central European Institute of Technology



Kamenice 753/5, 625 00 Brno

## University Facilities

### Language Centre

LC

Komenskeho nam. 220/2,  
662 43 Brno

### Technology Transfer Office

TTO

Komenskeho nam. 220/2,  
662 43 Brno

### Central Management Structure of the CEITEC Project

Koliste 1965/13a,  
602 00 Brno

### Masaryk University Archives

Zerotinovo nam. 449/3,  
602 00 Brno

### Career Centre

CC

Komenskeho nam. 220/2,  
662 43 Brno

### Centre for International Cooperation

CIC

Komenskeho nam. 220/2,  
662 43 Brno

### Mendel Museum

Mendlovo namesti 907/1a,  
603 00 Brno

### Support Centre for Students with Special Needs (Teiresiás Centre)

Komenskeho nam. 220/2,  
662 43 Brno

### University Centre Telc

Namesti Zachariase z Hradce 2,  
588 56 Telc

## Specialized Units

### Accommodation and Catering Services

ACS

Vinarská 471/5a, 603 00 Brno

### Masaryk University Press (Munipress)

Rybkova 987/19, 602 00 Brno

### Management of the University Campus at Bohunice

Kamenice 753/5, 625 00 Brno

# List of Abbreviations

## UNIVERSITY

ABA	Applied Behavior Analysis
AISEC	International Association of Students in Economic and Commercial Sciences
BIM	Building Information Model
BMS	Building Management System
C4E	Czech CyberCrime Centre of Excellence
CEITEC	Central European Institute of Technology
CEPLANT	Regional R&D Centre for Low-Cost Plasma and Nanotechnology Surface Modifications
CERIT SP	Centre for Education, Research and Innovation in ICT – Science and Technology Park and Incubator
CERIT-SC	Centre for Education, Research and Innovation in ICT – Scientific Cloud
CETOCOEN	Centre for Toxic Compounds in the Environment
CSIRT-MU	MU Computer Security Incident Response Team
DPS	Dynamic Purchasing System
ELSA	European Law Students Association
FA	Faculty of Arts
FEA	Faculty of Economics and Administration
FEdu	Faculty of Education
FI	Faculty of Informatics
FLaw	Faculty of Law
FMed	Faculty of Medicine
FSci	Faculty of Science
FSpS	Faculty of Sports Studies
FSS	Faculty of Social Studies
GAMU	Grant Agency of Masaryk University
ICS	Institute of Computer Science
INBIT	Incubator for Biotechnology
INET	Economic and Administrative Information System of MU
IS MU	Masaryk University Information System
ISAB MU	Masaryk University International Scientific Advisory Board
ISEP	International Student Exchange Programme
IWR	Internal Wage Regulations
LC	Language Centre
LPT	Learning potential test
MIMSA	Masaryk International Medical Students Associations
MU	Masaryk University
MUNIE	Masaryk Student Union
OPTIMED	comprehensive curriculum innovation in General Medicine

P-Pool	undergraduate programme for motivated medical students
RECETOX	Research Centre for Toxic Compounds in the Environment
SKAS	Student Chamber of Academic Senate
SIMU +	Masaryk University Strategic Education Investment Project
SUPO	University payment system
TopSeC	Top Students Centre
TTO	Technology Transfer Office
U3A	University of the Third Age
UCB	University Campus Bohunice

## OTHER

7FP	7th Framework Programme for Research
BACnet	Building Automation and Control Networks data communication protocol
CASAJC	Czech and Slovak Association of Language Centres
CESNET	Czech Education and Scientific NETWORK
CR	Czech Republic
CSF	Czech Science Foundation
CZK	Czech Republic Koruna (Currency Unit)
CZEchELib	National Licensing Centre for Electronic Information Resources
EAIE	European Association for International Education
EOSC	European Open Science Cloud
EMBO	European Molecular Biology Organization
ERC	European Research Council
ERIH PLUS	European Reference Index for the Humanities
ESCI	Emerging Sources Citation Index
EU	European Union
EULETA	European Legal English Teachers' Association
GDPR	General Data Protection Regulation
H2020	Horizon 2020, EU framework programme for research and innovation
IATEFL	International Association of Teachers of English as a Foreign Language
ICT/IT	information and communication technology
ICM	International Credit Mobility
IEP-EUA	Institutional Evaluation Programme of European University Association
IF	impact factor
ISEP	International Student Exchange Programs
MEYS	Ministry of Education, Youth and Sports

MOOC	Massive open online course
NAFSA	National Association of Foreign Student Advisers
NHI	National Heritage Institute
OP	Operational Programme
PA	priority axes
PNAS	Proceedings of the National Academy of Sciences (Journal)
R&D	Research and Development
RDIOP	Research, Development and Education Operational Programme
RIV	Information Register of R&D Results
RUV	Information Register of Arts Results
SoMoPro	South Moravian Programme for Distinguished Researchers
SR	Slovak republic
TACR	Technology Agency of the Czech Republic
UNESCO	United Nations Educational, Scientific and Cultural Organization
USA	United States of America
V4	The Visegrád Group (a cultural and political alliance of four Central European states)
VAT	Value Added Tax
VIB	Vlaams Instituut voor Biotechnologie
WoS	Web of Science

## **ANNUAL ACTIVITY REPORT MASARYK UNIVERSITY 2017**

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