

## Questions from the International Evaluation Panel to BUT top management representatives to be discussed during on-site visit meeting on October 16, 2020

### • 4.5 Training system in the area of intellectual property protection and technology transfer

a) What are the topics covered in the courses that are currently given?

- **The courses are tailored specifically to the needs of the attendees. Most common topics include IP protection and tech transfer in grant projects and academia-industry cooperation, IP for Ph.D. candidates, General IP and tech transfer introduction and Internal procedures regarding IP and tech transfer**

b) Who gives the courses?

- **The courses are given by TTO employees – usually an IP lawyer and tech transfer manager responsible for the individual activity faculty.**

c) Are there any links with local investors/business angels?

- **These links are provided and administered by JIC Brno, a special entity co-established by BUT with other local universities and regional authorities. BUT also maintains these contacts through the Commercialization Council and individual contacts. The contacts are permanently updated.**

d) Does the University provide any support to spinout companies, including investment?

- **The university provides spinout/spinoff companies with cutting edge IP, advice and collaboration on IP protection and PR activities. Investment is not provided.**

e) What stake does the University take in the companies for this support?

- **The university does not acquire a stake in the spinoff companies, the relationship is on a contractual basis. Given severe regulatory restrictions, spinoffs actively refuse to provide a stake as the regulatory restrictions render the university unattractive as a shareholder/investor.**

- **4.12 Mobility of academic staff and researchers**

a) How many sabbatical leaves were realized in the last 5 years abroad by the BUT research/teaching staff?

- **Information, as far as we know:**

<b>Faculty and Institutes</b>	<b>Sabbatical</b>
Faculty of Business and Management	1
CEITEC	0
Institute of Forensic Engineering	0
Faculty of Information Technology	0
Faculty of Electrical Engineering and Communication	0
Faculty of Fine Arts	4

- **4.12 Mobility of academic staff and researchers**

b) How realistic do you see establishing international study program as a EU Marie Skłodowska-Curie training site at BUT in a near future? According to your opinion, which study fields should be involved as strategic targets?

- **Faculty of Business and Management: To establish a EU Marie Skłodowska-Curie training site is highly challenging task. With a strategy of attracting excellent researchers who will attract with their research activities Ph.D. students might be possible in a longer time period.**
- **Faculty of Information Technology: Information Technology should be involved as strategic target.**
- **Faculty of Information Technology and Communication: study fields Electronics**
- **CEITEC : It is very realistic to establish international study program as a EU Marie Skłodowska-Curie training and in fact, we have applied for such study programme in the past. Study field: Nanotechnologies and Advanced Materials**
- **Institute of Forensic Engineering: Although there exist some counterparts institutions abroad for research fields at IFE, particular focuses are very specific. However, younger scientists at IFE probably use such typ of program in a near future.**
- **Faculty of Fine Arts: In the 5 years horizon, we would like to establish a joint masters (MA) degree with a foreign European University/Fine Arts College, focused on creative industries and excellence in artistic research. The negotiations and structure of the program have been in progress and consideration since 2019.**

- **4.13 Internationalisation of the internal environment**

a) How many dual Ph.D. study programs are now under execution, as based as an outcome of the signed MoUs?

- **BUT doctoral programmes currently include 6 Double Degree programmes under execution (1 at Faculty of Chemistry, 2 at CEITEC and 3 at Faculty of Electrical Engineering).**

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## • 4.14 System for career growth for academic staff and researchers

### a) How do you motivate academic and research staff to be actively involved in mobilities programs (e.g. Erasmus+)?

#### • Faculty of Business and Management:

- 1) including them into the international projects (e.g. activities in the form of joint workshops, lectures, trainings, conferences, joint publications with colleagues from partnering universities in the frame of the international project of strategic partnership CHEDTEB\_more at projects websites <https://www.chedteb.eu/>, EduLab4Future\_more at project websites <http://edulab4future.eu/>)
- 2) active participation and networking on an international event Brno International Week organized each year at FBM
- 3) active policy and strategies of mobility support (e.g. tandem mobilities, updating list of international activities at intranet for staff on regular basis more at <https://old.fbm.vutbr.cz/intraportal/clanky/zahranicni-mobilita-partnerske-univerzity>)
- 4) including mobilities and joint activities with foreign partners into the career and development plans of each employee, as well a part of annual assessment and motivation interviews
- 5) offering possibilities for active cooperation in working groups/tasks group in international networks, FBM membership at <https://www.fbm.vutbr.cz/en/international/partners>
- 6) possibilities of active participation as invited guest lectures at partnering universities (e.g. participation on summer schools, international weeks, conferences etc.)

#### • Faculty of Information Technology:

- 1) presentation of professional benefits from the international environment and contacts
- 2) importance for professional development
- 3) personal consultations and advice
- 4) organizational and administrative support in the implementation of the trip

#### • Faculty of Electrical Engineering and Communication:

- 1) Financial support
- 2) Career
- 3) international contacts for common projects

#### • CEITEC VUT:

- 1) Newsletter
- 2) PhD students are required to spend at least 3 months on a professional internship abroad.

#### Institute of Forensic Engineering:

Notification via email to academic and research staff.

#### • Faculty of Fine Arts:

As a small faculty, we have only a limited number of free slots for ERASMUS+ exchange scholars and researchers in the program and in the past years we have not had issues with filling them. International cooperation and exchange is a core tool for artistic and pedagogical work so the academics and researchers are internally motivated. However, the school supports them so the teaching schedules and studio meetings are flexibly arranged around their absence.

- 4.14 System for career growth for academic staff and researchers

b) How many foreign scientists have spent their sabbatical at BUT in the last 5 years?

<b>Faculty and Institutes</b>	<b>Sabbatical</b>
Faculty of Business and Management	1
Faculty of Information Technology	2
Faculty of Electrical Engineering and Communication	0
CEITEC	0
Institute of Forensic Engineering	0
Faculty of Fine Arts	4

## Project International Mobility of Researchers

The project is opened till 06/2022, so statistics from last academic year are not complete. Brno University of Technology applied for the follow-up of the project and the moment other mobilities have started. The second project lasts till 06/2023. The project is focused at the mobility of Ph.D. students and Postdoc mobility.

### INCOMING MOBILITY

In case of incoming mobility, only postdocs did the mobility, as the following table shows:

Faculty/Institute	2017/2018	2018/2019	2019/2020
Civil Engineering	2	5	1
Electrical Engineering and Communication	0	9	3
Information Technology	1	2	0
Business and Management	2	2	0
Central European Institute of Technology	3	2	1
Mechanical Engineering	1	2	0
<b>TOTAL</b>	<b>9</b>	<b>22</b>	<b>5</b>

### OUTGOING MOBILITY

Outgoing mobility is mixed from postdoc and Ph.D. mobility

Academic year Faculty/Institute	2017/2018		2018/2019		2019/2020	
	Postdoc	Ph.D.	Postdoc	Ph.D.	Postdoc	Ph.D.
Civil Engineering	0	1	2	4	1	2
Electrical Engineering and Communication	3	7	4	8	0	0
Information Technology	0	0	0	2	1	0
Business and Management	1	0	0	0	0	0
Central European Institute of Technology	0	0	0	0	0	0
Mechanical Engineering	4	4	7	6	0	0
Chemistry	2	3	2	2	0	0
<b>TOTAL</b>	<b>10</b>	<b>15</b>	<b>15</b>	<b>22</b>	<b>2</b>	<b>2</b>

## MEMORANDUM OF UNDERSTANDING

Brno University of Technology has made 187 MoU at university level and are available at our web pages:  
<https://www.vutbr.cz/studenti/staze/partneri#show-memorand-modul>

The most important international universities from the point of mobility of students and academic staff are:

- [Xi'an Technological University](#) (China)
- [Xihua University](#) (China)
- [Fudan University](#) (China)
- [National Chiao Tung University](#) (Taiwan)
- [Tallinn University of Applied Sciences](#) (Estonia)
- [Pusan National University](#) (Korea)
- [Kookmin University](#) (Korea)
- [INHA University](#) (Korea)
- [Vilnius Gedimino Technikos Universitetas VGTU](#) (Lithuania)
- [Vienna University of Technology](#) (Austria)
- [Ural Federal University](#) (Russia)
- [Izhevsk State Technical University](#) (Russia)
- [The University of Sheffield](#) (England)
- [CETYS Universidad](#) (Mexico)
- [Universidad de Sevilla](#) (Spain)
- [Stockholm University](#) (Sweden)
- [Kyiv National University of Technologies and Design](#) (Ukraine)



## INTER-INSTITUTIONAL AGREEMENTS WITHIN ERASMUS+

Brno University of Technology has nowadays 760 Erasmus+ agreements.

The most important international universities from the point of Erasmus+ mobility of students and academic staff are:

- [Technische Universität Graz](#) (Austria)
- [Technische Universität Wien](#) (Austria)
- [KU Leuven](#) (Belgium)
- [Universiteit Gent](#) (Belgium)
- [Karlsruhe University of Applied Sciences](#) (Germany)
- [Tallinn University of Technology](#) (Estonia)
- [Universidad de Alicante](#) (Spain)
- [Universidad de Sevilla](#) (Spain)
- [Universidad de Malaga](#) (Spain)
- [Universidad de Oviedo](#) (Spain)
- [Tampere University](#) (Finland)
- [University of Pécs](#) (Hungary)
- [Politecnico di Milano](#) (Italy)
- [Kaunas University of Technology](#) (Lithuania)
- [Lublin University of Technology](#) (Poland)
- [Universidade de Coimbra](#) (Portugal)
- [Universidade de Aveiro](#) (Portugal)
- [Yildiz Technical University](#) (Turkey)
- [INSA de Rennes](#) (France)
- [Ss. Cyril and Methodius University in Skopje](#) (Macedonia)
- [Norwegian University of Science and Technology](#) (Norway)
- [Cracow University of Technology](#) (Poland)

- **4.15 Evaluation system of academic staff and researchers and filling key positions in R&D&I**

a) When there will be operational uniform evaluation system at BUT? Are you aware of the so called HAP – Evaluation of Academic Workforce (in Czech language “Hodnocení akademických pracovníků”) evaluation system running at some institutions?

- **Management of BUT invited authors of HAP (Evaluation of Academic Workforce) to present this system in 2017. Next year we visited the Palacky University to discuss this system more precisely. Results: we could not implement the HAP due to differences in the data structure. BUT uses its own information system for study agenda and for R&D. The decision was to develop our own module specific to our data. We will use this system to complete information about A&R staff in 5 areas:**
  - Teaching activities
  - Results of R&D according to the Methodology of RVVI
  - Results of arts activities
  - Information about research projects, membership in professional association, membership in journals’ editorial boards, board of conference, review of journals and scientific works etc.
  - Personal development and university activities (e.g. member of scientific boards etc.)
  - Students’ assessments
  - Plan of career shift and personal development for future periods
- **The application has been developed and is currently being tested by heads of departments and vice-deans. The proposal of evaluation guidelines is under discussion. The training courses for evaluators are prepared. We plan to introduce the system by the end of this year and conduct the evaluation for 2020.**

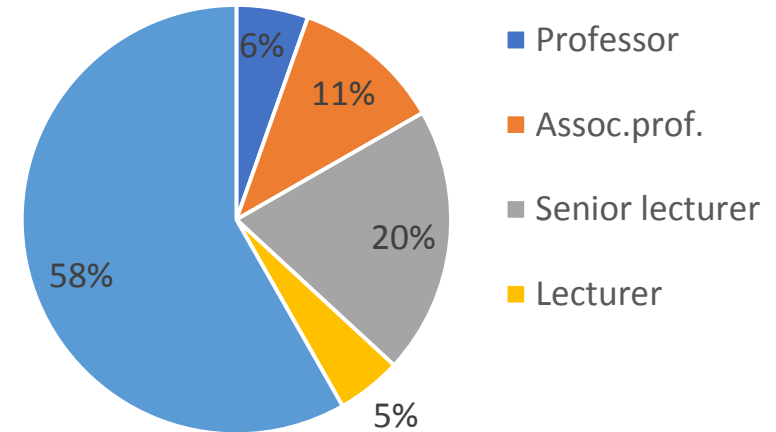
## 4.17 Human Resources structure

a) What is your view on optimal numbers of professors, associated professors, assistant professors and supporting staff at the whole university level as the ratio of total staff?

- **Regarding the structure of staff at BUT, we considered multiple points of view:**

- **The requirements on a guarantee of a study programme (only a professor or assoc. professor can be appointed for academic SP); BUT has 145 study programs**
- **Requirement on a PhD supervisor – only a professor or assoc. professor, rarely a senior lecturer (for one specific topic)**
- **Average ratio of students per academic: the ratio decreased within the last five years from 21 to 17 students; we will continue in this trend**
- **Number of high quality papers (WoS): 0.46 papers per employee (large differences among faculties: 0.4 – 2.1)**
- **public financial resources for R&D per academic and research staff: about 1 mil. CZK (2019)**
- **benchmarking: relatively higher share of administrative staff than at similar universities**

**Structure of total staff in 2018**



a) What is your view on optimal numbers of professors, associated professors, assistant professors and supporting staff at the whole university level as the ratio of total staff?

## **Conclusion:**

- **Current structure of academic and research staff is adequate to university activities. The BUT has potential to increase number of Ph.D. students, papers in high-quality journals as well as income for R&D given our number of A&R staff**
  - **We are aware of the potential to improve the age structure of professor and associated professors (about 23 % academic and research staff more than 60 years, in the category of professors and assoc. professor 45 %). Potential way is supporting younger candidates in their career shift and decreasing the ratio of lectures.**
- **The number of our administrative staff is higher than the number at other technical universities in CR. We attempted to decrease administrative staff through centralisation of some processes (centralisation of some activities – HR, Project support) and digitalisation of document (record) circulation**

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- **4.17 Human Resources structure**

b) What is your goal in Ph.D. students self-paying enrolments as a whole university in comparison to the total Ph.D. enrolments?

- **In Ph.D. studies, Brno University of Technology aims to achieve approximately 20% of foreign enrolments in Ph.D. studies on the basis of project financing ensured by excellent supervisors**
- **sc) What strategy you are planning to implement to lure higher numbers of foreign self-paying enrolments in Ph.D. studies as a whole BUT?**
- **In Ph.D. studies we focus on attracting the best students from abroad. BUT strategy includes especially:**
- **Joint research projects involving cooperation with foreign institutions (incl. high-tech companies) generating Cotutelle studies**
- **Wide range of attractive topics for Ph.D. theses supervised by highly qualified and experienced supervisors, taking part in various promising projects**
- **Promotion of studies in selected regions (incl. Asia and middle and eastern Europe)**
- **Promotion of studies by our students travelling abroad.**

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- **4.18 Gender equality measures**

a) What is the process when a woman wishes to take a career break/go on maternity leave?

- **There are standard personal arrangements fully in line with the Czech legislation (Labor Act), which guarantees the employer is expected to keep the position for the period of three years at maximum. There is also a general regulation of maternity leave continued by the parental leave, when both parents, either one or the other, to take it as a paid leave. This makes possible the women to share the parental role with the partner. The University itself operates a kindergartener „Edisonka“, which makes the return of women and or parents in general easier. The University is in negotiation on extension of similar services, and/or provide a financial contribution to the parents for the placement of children below 6 in general kindergartens**

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b) In any selection/promotion process – is a gap in a woman’s career taken into account e.g. the fact that she may have less publications than a man who started his career at the same time as her?

- **The university applies strictly a principle of „equal opportunities“. There is an open policy applied in BUT in involvement of women in managerial positions and it is widely visible in practice. There are also some specific financial instruments used to promote publications of our academics by evaluation of the publications quality. This support is available for everyone (men and women equally) on the basis of evaluation of quality of publications in line with the M17+ methodology. Apart from that the university is about to start implementation of the systematic application of gender equality. This was initiated as a result of the gap analysis conducted for the HR Award. There is a currently submitted project proposal applied among the Internal Development Projects 2021 to develop the Plan of gender equality with the specific milestones, aims and policies. The systematic evaluation and managing the equal opportunity concept is included among the main activities of the newly established Personal Centre built as one of outputs of the project MOST (funded by the Ministry of Education in the Programme scheme OP VVV)**

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## 4.23 External advisory bodies for R&D&I

- **In which topics you will find establishing of the international advisory boards (IAB) the most helpful in your work?**
- **The system of management and internal setting of R&D BUT has been inspired and will be setting according to the most significant scientific institutions,**
- **Top management will be covered by foreign experts in science; It will be based on a regular evaluation of the quality of scientific results carried out by an independent team of top world experts in the given fields,**
- **An IAB helps independent evaluation according to strict international standards, whose members are significant people in foreign and Czech science.**
- **An IAB will play a crucial role in the Evaluation of Scientific Excellence at BUT, will be involved in setting the criteria , comments on the planned research activities and will give recommendations regarding strategic positioning of the University and of its faculties and institutes.**

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- **4.26 Internal regulations and measures for maintaining good practice in R&D&I**

- Is there any ethics requirements for doing all user studies that require human participants, e.g. even something as simple as asking people “Is this system better than that”?
- **BUT is mindful of the moral prestige it has as an institution, and emphasises ethical conduct of its employees and students, it hereby issues the BUT Code of Conduct (hereinafter the “Code”) as a set of basic moral rules that must be observed by academia.**
- **For this reason BUT has issued renewed Code of Conduct in 2016 as a set of basic moral rules that must be observed by academia. Code is binding not only for members of the academic staff, but also for researches, non-academic employees - and students as well.**
- **Specific part of Code’s regulation is focused solely on scientific, research, artistic an other creative activities.**
- **Furthermore, the Ethics Committee has been established, in order to carry out resolutions in case the rules of the Code shall be breached.**