

**Faculty of Information Technology – answers to questions of the International Evaluation Panel
Brno University of Technology**

3.4 Revenues from non-public sources (besides grants or contract research) from research work

Asked to: Head of Department (HoD), research managers

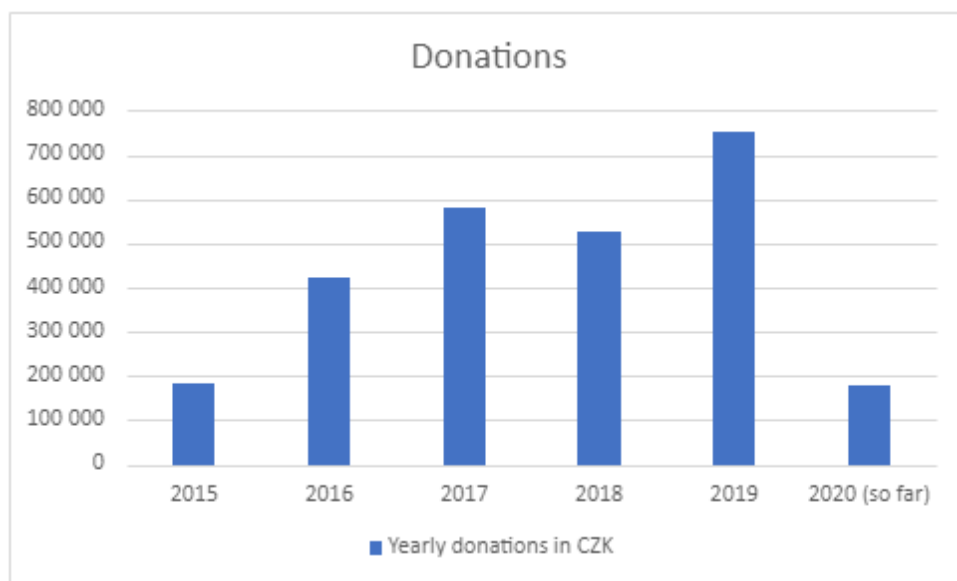
- Can you give some examples of what donations from companies such as Google, Skoda, etc. might entail?

Most often, the donations are financial and directed towards specific events or activities (such as a conference, a summer school, a research group, or to purchase some specific equipment). Sometimes, some hardware is also donated.

Individual examples:

- Google: 2 faculty research awards (each ~70 kUSD), based on applications
- Facebook: 2 GPU servers with GPUs (value ~1.5 M CZK) based on an application
- Skoda-auto: GPU equipment for virtual reality for
- Honeywell: a donation towards research in aerospace technologies
- Adobe: a donation towards research of immersive trips

More... Details can be explained by the individual researchers, some of them are present.



Additional (one

time):

Year	CZK	Source
2015	485 820	Aspire (Szoke, Karafiat, Grezl)
2017	1 413 120	Google (Plchot)
2017	700 000	Honeywell (Zemčík)
2018	1 541 446	Google (Plchot)

- How do you go about getting these donations?

Different ways, to give an example, Adobe, Honeywell, or RedHat offered a donation/sponsorship based on personal contacts, many companies applied to our partnership programme – not included in the above answer (partnership fees are considered a payment for a contract, not a donation), some companies were directly asked for sponsorship of individual events, such as conferences.

Google and Facebook were won competitively in “grant”-like applications. ASPIRE was obtained thanks to one of the best robust speech recognition systems in the US IARPA ASPIRE evaluation. ADOBE sponsorship was obtained thanks to cooperation of Jan Brejcha and Martin Cadik with the company (see DCGM presentation)

More... Specifics of the partner programme can be explained by Vita Beran (external relations).

- What is your plan and how important is this resource?

The donations are not too important as a general source of funding. However, specific contributions are nice, e.g., during conferences or purchases of specific materials/instruments as the funding from donors does not always have the features of “public money”. We co-ordinate actions with individual donors by academics/researchers, and a larger-scale industry donation program (such as those present at many US Universities – involving professor chairs, support for buildings/equipment, classes/labs, etc.) is planned including a more pro-active approach in acquiring industrial money in order to cope with fluctuating funding from the state and grant agencies.

More... Details can be given by Vita Beran (external relations).

3.5 Applied research results with an existing or prospective economic impact on society

Asked to: HoD, research managers

- Can you give more details of the state of the patent currently being “*considered by the Tescan company*”? Has Tescan taken an evaluation licence? When will a decision be made?

The joint patent with TESCAN will not be submitted. The IP behind the potential patent application is a result of contractual research of FIT performed for TESCAN (joint spectral and optical analysis of electron-microscope imagery using AI). According to the contract, it was up to TESCAN to judge the situation. The decision was not to patent but rather to publish the results in order to prevent others from patenting (and for us to have a nice journal paper). The paper has been submitted and it is under review at the moment.

More... Information can be given by dean Zemčik (participated in this case personally).

Similarly, with the European patent, what exactly does “*Zeiss is currently seriously interested in the patent*” mean?

The people behind the group (mainly Prof. Drahan sky) have managed to communicate with highly positioned people from Zeiss responsible for R&D in the given specific area. Subsequently, representatives of Zeiss visited the group in Brno to see a prototype of the device (being tested in the St. Anne’s University Hospital). They agreed that the approach has unique features of interest for Zeiss, but Zeiss requested more testing in the field. The group is now upgrading the prototype for that purpose. It should get in touch with Zeiss in the first half of 2021 again.

- How do you motivate employees to be active in applied research?

Applied research (as well as contractual research) is being encouraged and also supported by “nice” financial conditions – researchers that participate are getting extra money in their salaries. Also, applied research funding is relatively well accessible (Czech Technology Agency, Ministry of Trade, Ministry of the Interior, H2020 ECSEL, etc. plus contractual research from companies). In fact, we rather need to encourage people to go into basic research and to publish their results in high-profile journals/conferences. (For this, we do have a motivation system in place consisting of “immediate rewards” plus a “salary system” taking into account such publications. Another motivation is then that such publications are needed for habilitation.)

More... Details can be given by dean Zemčik and CFO (if he is available).

3.8 System and support of technology transfer and intellectual property protection

Asked to: HoD, Technology Transfer Office, staff/students involved in spin out companies.

- What support do spinout companies get, e.g., help with business plans, investment etc.?

The “startup” activities do get various forms of support. FIT itself has a Startup@FIT programme for students to encourage entrepreneurship and to develop their pre-seed ideas. We also have a competition for the best ideas. We also provide space for students in the “Creative showroom”. We also hired advisors to work with students (Mr. Jírovec - ex-CzechInvest and Mr. Brabec – our alumnus and entrepreneur). When a company already exists, we are not allowed to provide any direct support (we work with public money), but JIC (the Southmoravian Innovation centre – our joint venture with other universities, city and regional councils) is able to support companies and provide a direct help with business (space, advice, venture capital).

More... Information can be given by Vita Beran (external relations) and dean Zemčik.

- Are spinouts encouraged?

Yes, they are. We have a “manual” concerning the possible participation in “spinoff” companies (see “Podpora zakládání Startup firem na FIT VUT.docx”) and we do have several examples of start-up companies with and without participation of BUT (Phonexia, Invea-Tech, Cudasip, CAMEA, TESCANA-3Dim, COGNITECHNA, etc.).

More... Specific details by Vita Beran (external relations) and dean Zemčik.

- How is the faculty supported by the BUT processes in technology transfer?

The BUT central technology transfer office provides services to FIT (such as support in legal matters, patents and other forms of IP protection, etc.). It also provides services for those interested in FIT technologies (FIT has a representative at the technology transfer office) and links to the local technology transfer manager, Petr Sadovský (<https://www.fit.vut.cz/person/petrsad/en>), and to the researchers.

More... Details by CFO (if available) and dean Zemčik.

- How does FIT BUT engage with the TTO within the University?

FIT engages mainly in IP reporting and IP protection where researchers and authors of IP in general can obtain support for the IP protection, technology transfer, including, e.g., their active communication of complex legal matters with their foreign co-authors, partners in projects, and collaboration, etc.

More... Details can be given by Tomáš Vojnar (science and research).

3.9 Strategy for setting up and support of spin-off firms or other forms of commercialisation of R&D&I results

Asked to: HoD, Technology Transfer Office, staff/students involved in spin out companies.

Similar to 3.8

- How much support is given to setting up a spinout?

As it was mentioned also earlier, the support is given mostly in the pre-seed phase, but we actively collaborate with JIC, and, once the companies are founded, they are offered incubation and support programmes (such as “Platin”) by JIC. If the company is selected and gets BUT financial participation (approved by the BUT appropriate bodies), then also finances are invested in such a company.

More... Specific procedures can be explained by Vita Beran (external relations).

- How many successful spinouts are there?

Formal spin-offs involving a financial investment by BUT are quite rare due to a complicated legal background. The only such case is Invea-Tech from which Flowmon Networks and Netcope Technologies were established in 2015. (Invea-Tech is now likely to be sold for literally millions of USD.) We are making every effort to catalyse spin-offs with financial participation of BUT. However, given the complicated legal situation, student start-ups with no ownership connection to BUT are much more common. Note that these companies typically bring a lot of benefit to BUT in terms of collaboration and joint projects. In case we loosen the definition of a spin-off from those with a direct ownership of BUT to companies started by FIT staff and students, there is a healthy number of successful companies spined out:

- Camea,
- Phonexia,
- 3Dim Laboratory (now a joint venture with Tescan)
- Cudasip
- Cognitechna
- AngelCam
- ReplayWell
- Voice Dimension
- Camvision
- Panoris
- ...

More... Information by Vita Beran (external relations) or Tomáš Vojnar (science and research).

- Who and how many typically attend the TTO courses and who presents them? What are the most useful topics?

The TTO courses are attended by students from a whole range of fresh Bc students to final-year MSc students and occasionally PhD students as well. The typical number of students is 20-50, but the experience is only building. The lecturers include academics, technology transfer and incubation specialists from JIC, mentors experienced in building businesses, and alumni entrepreneurs running their businesses. What is the most useful? We are not yet sure – the Startup@FIT series of courses are relatively new (3rd year).

More... Information to be given by Vita Beran (external relations).

- Why are “formally considered spin-offs” only rarely established at FIT BUT?

Multiple reasons exist, to our opinion. The most important include:

- Legal reasons – a very difficult process to approve participation of BUT in companies.
- Limitations in collaboration of universities with companies they co-own (an overshoot attempt to ensure free competition and free market?).
- Difficult licensing of IP from both procedural and evaluation points of view.
- Not “visible” advantages for the companies in accepting the investment from BUT.

More... Information by dean Zemčík

- What is your vision in support of commercialization of R&D results?

We are focusing commercialization of R&D results using the following instruments:

- Active search for industrial partners that match the best with the scientific focus of our researchers (both using “in-house” personnel, external colleagues, and BUT central sources).
- Seeking information and informing our researchers about the business opportunities and needs (matchmaking events at FIT, such as “Žijeme IT” and trade fairs).
- Encouraging students to start a company based on the experience they got and the results they achieved, explaining them possible collaborations on applied projects (and showing them that this really works, e.g., by involving them into already running collaborations).
- The (financial) results of R&D transfer are mostly available to the researchers who created the licensed IP.

More information by Vita Beran (external relations).

3.11 Recognition by the international R&D&I community

Asked to: HoD, academics

- Is there help to, e.g., pay the membership fees of professional societies?

Yes, BUT is a group member of several societies and pre-pays access to libraries (such as IEEE). Moreover, FIT also encourages and supports individual memberships of employees and reimburses some of the membership fees in salaries.

More... Information by dean Zemčik

- How are invited speakers chosen? Is there a process for this and a regular funding stream?

At FIT, we are running regular series of invited lectures (such as VGS-IT) and ad-hoc events. Of course, we exploit individual contacts of our academics and researchers and we also specifically ask selected specialists to come. Moreover, we are using the opportunities, such as PhD theses defences, project meetings, conferences, academic events, etc. to invite people to give lectures at FIT. To fund the lecturers, we do use FIT budget (a specific chapter is devoted to support such exchanges) as well as specific travel programmes funded by the Ministry of Education and run by BUT rectorate.

More... Information to be given by Vita Beran (external relations).

- How are researchers encouraged to participate in international activities that can increase international recognition of BUT (FIT)?

Most of the academics consider the international activities to be an integral part of their professional life, and so most of them do not need “to be encouraged”. Strong academics and researchers do this automatically and inspire their colleagues, especially younger ones. Anyhow, we support international visits of our staff financially (e.g. by an additional support to the Erasmus+ travel). International activities are also a part of evaluation of academics at FIT. In the new accreditation of our PhD programme, an external activity (for example, a stay in a foreign lab or a scientific cooperation with partners from another country on a paper, evaluation, etc) has been set as one of the conditions to obtain a doctoral degree from FIT BUT – in line with the national requirements.

More... Details to be asked to Tomáš Vojnar (science and research).